
University of Minnesota Duluth

NSSE 2016 Major Field Report, Part II

Comparisons to Other Institutions

Engineering

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

The Major Field Report group 'Engineering' includes the following majors: Biomedical engineering; Chemical engineering; Civil engineering; Electrical or electronic engineering; Engineering (general); Industrial engineering; Mechanical engineering; Other engineering.

Note:

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

About Your Major Field Report, Part II

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

NSSE results included in MFR, Part II

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

Related-Major Groups

Self-reported 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.

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

Overview of Engagement Indicators: Engineering University of Minnesota Duluth

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 Engineering			Seniors in Engineering		
		Your first-year students compared with UMD Peers	Your first-year students compared with Competitors	Your first-year students compared with NSSE Carnegie	Your seniors compared with UMD Peers	Your seniors compared with Competitors	Your seniors compared with NSSE Carnegie
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: Engineering

University of Minnesota Duluth

First-year students^a in Engineering

	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Academic Challenge												
Higher-Order Learning												
UMD (N = 91)	36.8	12.4	1.30	20	30	35	45	60				
UMD Peers	37.3	13.4	1.19	15	30	40	45	60	217	-.6		-.045
Competitors	38.8	13.2	1.77	15	30	40	48	60	145	-2.1		-.164
NSSE Carnegie	36.9	14.1	1.00	10	30	40	45	60	289	-.2		-.012
Reflective & Integrative Learning												
UMD (N = 96)	33.2	11.5	1.18	17	23	31	43	54				
UMD Peers	32.8	11.5	1.01	14	26	31	37	54	223	.4		.031
Competitors	33.1	11.4	1.51	20	26	31	40	60	151	.1		.009
NSSE Carnegie	32.1	11.5	.81	14	26	31	40	51	295	1.1		.094
Learning Strategies												
UMD (N = 95)	35.5	13.8	1.41	13	27	33	47	60				
UMD Peers	34.6	14.1	1.25	13	27	33	43	60	221	.9		.066
Competitors	37.6	15.3	2.05	7	27	40	47	60	149	-2.1		-.147
NSSE Carnegie	37.0	14.5	1.03	13	27	40	47	60	292	-1.4		-.101
Quantitative Reasoning												
UMD (N = 96)	32.1	12.4	1.26	13	27	27	40	60				
UMD Peers	32.5	14.7	1.29	7	27	33	40	60	223	-.4		-.031
Competitors	32.2	16.6	2.18	0	20	33	47	60	95	-.1		-.007
NSSE Carnegie	32.5	15.5	1.09	7	20	33	40	60	230	-.4		-.029
Learning with Peers												
Collaborative Learning												
UMD (N = 93)	35.7	12.1	1.26	20	25	35	40	60				
UMD Peers	36.6	13.7	1.24	15	30	40	45	60	213	-.9		-.066
Competitors	33.2	13.9	1.87	10	20	35	45	55	146	2.5		.197
NSSE Carnegie	34.0	13.5	.96	10	25	35	40	60	287	1.7		.128
Discussions with Diverse Others												
UMD (N = 94)	37.3	14.5	1.49	15	25	40	50	60				
UMD Peers	38.8	15.2	1.34	15	28	40	50	60	220	-1.5		-.100
Competitors	37.2	15.6	2.05	10	25	40	50	60	150	.2		.012
NSSE Carnegie	36.8	17.0	1.19	5	25	40	50	60	294	.5		.033

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

Engagement Indicators: Engineering

University of Minnesota Duluth

First-year students^a in Engineering

	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Experiences with Faculty												
Student-Faculty Interaction												
UMD (N = 94)	16.8	13.9	1.43	0	5	15	25	40				
UMD Peers	17.2	12.2	1.07	0	10	15	25	40	221	-.4		-.032
Competitors	16.9	12.3	1.61	0	10	15	25	40	150	-.1		-.011
NSSE Carnegie	18.9	13.3	.94	0	10	15	25	45	293	-2.1		-.158
Effective Teaching Practices												
UMD (N = 96)	35.4	10.8	1.10	20	28	36	40	56				
UMD Peers	35.9	13.4	1.18	12	28	36	44	60	222	-.5		-.040
Competitors	38.7	13.0	1.71	16	32	38	48	60	152	-3.3		-.282
NSSE Carnegie	39.3	14.0	.98	16	28	40	52	60	236	-3.9	**	-.303
Campus Environment												
Quality of Interactions												
UMD (N = 91)	41.5	10.6	1.11	20	38	42	48	55				
UMD Peers	40.4	12.0	1.08	18	34	42	50	58	213	1.1		.094
Competitors	41.7	10.6	1.44	22	35	41	50	60	143	-.2		-.019
NSSE Carnegie	42.9	12.2	.88	20	36	46	52	60	201	-1.4		-.122
Supportive Environment												
UMD (N = 95)	33.1	13.5	1.38	13	25	33	40	60				
UMD Peers	35.6	12.6	1.12	15	27	38	43	55	221	-2.5		-.194
Competitors	36.4	13.6	1.80	18	25	38	43	60	150	-3.3		-.245
NSSE Carnegie	35.7	13.4	.95	15	28	36	45	60	295	-2.6		-.194

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

Engagement Indicators: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Academic Challenge												
Higher-Order Learning												
UMD (N = 86)	39.8	12.6	1.36	20	30	40	50	60				
UMD Peers	37.1	14.1	1.07	10	25	40	45	60	256	2.7		.199
Competitors	39.3	12.7	1.01	20	30	40	50	60	241	.5		.042
NSSE Carnegie	36.8	14.1	.89	10	25	40	45	60	335	3.1		.222
Reflective & Integrative Learning												
UMD (N = 85)	32.3	11.9	1.29	14	23	31	40	49				
UMD Peers	31.5	12.0	.90	9	23	31	40	51	259	.8		.067
Competitors	32.2	12.4	.97	14	23	31	40	57	248	.1		.010
NSSE Carnegie	32.6	12.9	.81	11	23	31	43	57	336	-.3		-.024
Learning Strategies												
UMD (N = 86)	30.6	13.9	1.50	7	20	33	40	60				
UMD Peers	36.1	15.5	1.18	13	20	33	47	60	258	-5.4	**	-.362
Competitors	37.6	15.9	1.24	13	27	40	53	60	194	-7.0	***	-.461
NSSE Carnegie	36.1	15.4	.96	13	27	33	47	60	161	-5.5	**	-.364
Quantitative Reasoning												
UMD (N = 86)	40.5	14.6	1.57	13	27	40	53	60				
UMD Peers	37.1	15.8	1.20	13	27	40	47	60	259	3.3		.216
Competitors	38.3	14.5	1.13	20	27	40	47	60	249	2.2		.152
NSSE Carnegie	36.1	16.4	1.03	7	20	33	47	60	339	4.4	*	.275
Learning with Peers												
Collaborative Learning												
UMD (N = 86)	40.8	14.3	1.54	15	30	40	50	60				
UMD Peers	40.5	13.3	1.01	20	30	40	50	60	258	.3		.020
Competitors	34.7	15.8	1.24	5	25	35	45	60	247	6.1	**	.399
NSSE Carnegie	38.6	13.6	.86	15	30	40	50	60	338	2.1		.155
Discussions with Diverse Others												
UMD (N = 86)	34.9	13.2	1.42	15	25	38	40	60				
UMD Peers	38.1	18.7	1.43	0	20	40	60	60	227	-3.2		-.186
Competitors	36.9	17.4	1.38	0	25	40	50	60	217	-1.9		-.119
NSSE Carnegie	37.8	18.3	1.16	5	20	40	60	60	204	-2.8		-.166

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Engagement Indicators: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

	Mean statistics			Percentile ^d scores					Comparison results			
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	Mean diff.	Sig. ^f	Effect size ^g
Experiences with Faculty												
Student-Faculty Interaction												
UMD (N = 86)	24.4	16.4	1.77	0	10	20	35	60				
UMD Peers	23.8	15.9	1.22	0	10	20	35	55	253	.6		.036
Competitors	20.7	15.5	1.22	0	10	15	35	50	247	3.7		.233
NSSE Carnegie	24.0	16.2	1.02	0	10	20	35	55	335	.3		.019
Effective Teaching Practices												
UMD (N = 86)	38.7	11.6	1.25	16	32	40	44	60				
UMD Peers	37.4	13.6	1.03	16	28	40	48	60	259	1.4		.107
Competitors	38.1	12.8	1.00	20	32	36	48	60	249	.6		.051
NSSE Carnegie	36.1	15.1	.94	8	24	36	48	60	189	2.6		.183
Campus Environment												
Quality of Interactions												
UMD (N = 84)	43.2	10.6	1.15	24	36	44	50	60				
UMD Peers	39.8	12.2	.95	20	32	40	48	60	248	3.5	*	.295
Competitors	41.0	10.9	.90	23	34	42	50	58	228	2.2		.209
NSSE Carnegie	40.3	12.5	.82	16	32	42	50	60	317	3.0		.248
Supportive Environment												
UMD (N = 86)	26.9	11.8	1.28	8	20	26	35	45				
UMD Peers	28.4	14.1	1.07	8	18	30	38	58	198	-1.5		-.114
Competitors	28.5	12.2	.96	8	20	30	38	48	246	-1.7		-.138
NSSE Carnegie	28.6	14.2	.89	8	18	30	39	53	173	-1.7		-.127

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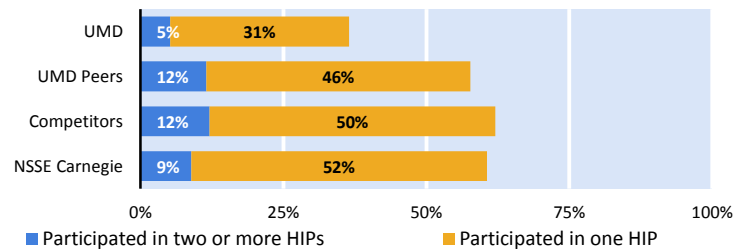
High-Impact Practices: Engineering

University of Minnesota Duluth

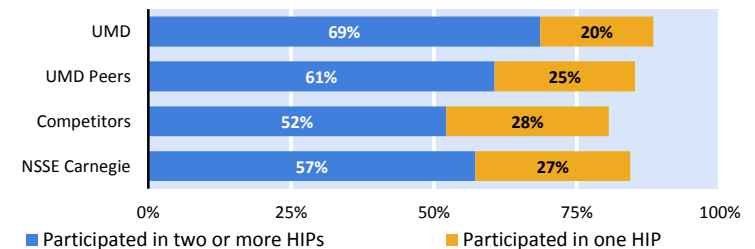
Overall HIP Participation^a

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 Engineering



Seniors in Engineering



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.

	UMD		UMD Peers		Competitors		NSSE Carnegie	
<i>First-Year Students in Engineering</i>	%		% ⁱ	Effect size ^j	% ⁱ	Effect size ^j	% ⁱ	Effect size ^j
11c. Learning community	4		31 ***	-.77	23 ***	-.58	11 *	-.27
12. Service-learning	36		34	.05	50	-.29	55 **	-.38
11e. Research with faculty	4		5	-.06	4	.04	4	-.01
Participated in at least one	36		58 **	-.43	62 **	-.52	61 ***	-.49
Participated in two or more	5		12	-.23	12	-.25	9	-.14
<i>Seniors in Engineering</i>								
11c. Learning community	22		25	-.07	26	-.08	21	.02
12. Service-learning	43		43	.00	45	-.05	47	-.08
11e. Research with faculty	33		24	.19	21	.25	26	.15
11a. Internship or field exp.	65		55	.21	48 **	.36	51 *	.28
11d. Study abroad	8		8	.00	9	-.02	6	.10
11f. Culminating senior exp.	60		54	.13	45 *	.31	50	.22
Participated in at least one	88		85	.10	81	.22	84	.12
Participated in two or more	69		61	.17	52 *	.34	57	.24

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD	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
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	5	5	5	4	0	0	6	3	2.5	2.7	-.24	2.7	-.30	2.7	-.22
		2	Sometimes	49	51	52	40	26	45	86	43							
		3	Often	30	31	50	38	21	36	77	38							
		4	Very often	12	13	23	18	11	19	33	16							
		Total	96	100	130	100	58	100	202	100								
b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1	Never	15	16	17	13	5	9	35	17	2.4	2.5	-.07	2.6	-.25	2.4	.03
		2	Sometimes	39	41	55	42	23	40	84	42							
		3	Often	31	32	40	31	19	33	57	28							
		4	Very often	11	11	18	14	11	19	26	13							
		Total	96	100	130	100	58	100	202	100								
c. Come to class without completing readings or assignments	unpreparedr (Reverse-coded version of unprepared created by NSSE.)	1	Very often	6	6	9	7	1	2	6	3	3.1	3.0	.07	3.2	-.23	3.2	-.16
		2	Often	16	17	11	9	5	9	21	11							
		3	Sometimes	41	43	80	63	31	53	104	52							
		4	Never	33	34	28	22	21	36	69	35							
		Total	96	100	128	100	58	100	200	100								
d. Attended an art exhibit, play or other arts performance (dance, music, etc.)	attendart	1	Never	44	46	59	46	28	50	104	52	1.8	1.7	.09	1.7	.12	1.7	.21
		2	Sometimes	31	32	53	41	19	34	69	34							
		3	Often	15	16	8	6	6	11	22	11							
		4	Very often	6	6	9	7	3	5	6	3							
		Total	96	100	129	100	56	100	201	100								
e. Asked another student to help you understand course material	CLaskhelp	1	Never	1	1	11	9	4	7	19	9	2.9	2.8	.12	2.6 *	.41	2.6 **	.31
		2	Sometimes	27	28	37	29	24	42	71	35							
		3	Often	51	54	51	40	22	39	80	40							
		4	Very often	16	17	29	23	7	12	31	15							
		Total	95	100	128	100	57	100	201	100								
f. Explained course material to one or more students	CLexplain	1	Never	1	1	4	3	3	5	10	5	2.8	2.9	-.14	2.7	.11	2.8	-.07
		2	Sometimes	36	38	38	30	19	34	60	30							
		3	Often	41	43	53	42	26	46	83	42							
		4	Very often	17	18	32	25	8	14	47	24							
		Total	95	100	127	100	56	100	200	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your first-year students compared with					
														UMD Peers		Competitors		NSSE Carnegie	
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
g. Prepared for exams by discussing or working through course material with other students	CLstudy	1	Never	9	10	12	9	6	10	28	14	2.7	2.8	-.09	2.6	.08	2.5	.17	
		2	Sometimes	30	32	37	29	25	43	77	38								
		3	Often	36	38	48	37	12	21	60	30								
		4	Very often	19	20	32	25	15	26	38	19								
		Total	94	100	129	100	58	100	203	100									
h. Worked with other students on course projects or assignments	CLproject	1	Never	3	3	7	5	5	9	10	5	2.8	2.9	-.08	2.7	.11	2.8	-.03	
		2	Sometimes	31	33	30	23	21	36	60	30								
		3	Often	43	45	64	50	18	31	86	43								
		4	Very often	18	19	27	21	14	24	45	22								
		Total	95	100	128	100	58	100	201	100									
i. Given a course presentation	present	1	Never	34	36	25	20	17	29	38	19	1.9	2.2 *	-.32	2.0	-.10	2.3 **	-.40	
		2	Sometimes	42	44	61	48	28	48	88	44								
		3	Often	12	13	35	27	9	16	61	30								
		4	Very often	7	7	7	5	4	7	15	7								
		Total	95	100	128	100	58	100	202	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	4	10	8	1	2	13	6	2.7	2.7	.04	2.7	-.04	2.7	.06
		2	Sometimes	33	34	44	34	22	38	75	37							
		3	Often	46	48	53	41	26	45	83	41							
		4	Very often	13	14	22	17	9	16	32	16							
		Total		96	100	129	100	58	100	203	100							
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	8	8	18	14	8	14	31	15	2.4	2.4	.01	2.4	.04	2.3	.12
		2	Sometimes	50	53	57	45	26	45	90	45							
		3	Often	27	28	37	29	18	31	67	33							
		4	Very often	10	11	16	13	6	10	14	7							
		Total		95	100	128	100	58	100	202	100							
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIdiverse	1	Never	23	24	18	14	10	17	40	20	2.2	2.3	-.11	2.2	-.07	2.2	-.04
		2	Sometimes	42	44	71	55	32	55	100	50							
		3	Often	22	23	28	22	9	16	46	23							
		4	Very often	8	8	11	9	7	12	16	8							
		Total		95	100	128	100	58	100	202	100							

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		Your first-year students compared with						
												UMD		UMD Peers		Competitors		NSSE Carnegie
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	7	7	8	6	5	9	16	8	2.7	2.7	-.07	2.7	-.06	2.6	.09
		2	Sometimes	32	34	41	32	18	31	81	40							
		3	Often	41	44	60	47	24	41	77	38							
		4	Very often	14	15	20	16	11	19	29	14							
		Total	94	100	129	100	58	100	203	100								
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	RIperspect	1	Never	4	4	8	6	2	3	11	5	2.8	2.7	.02	2.7	.09	2.8	-.02
		2	Sometimes	34	35	43	33	26	45	67	33							
		3	Often	39	41	52	40	18	31	82	40							
		4	Very often	19	20	26	20	12	21	43	21							
		Total	96	100	129	100	58	100	203	100								
f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	1	1	3	2	0	0	9	4	2.8	2.7	.13	2.7	.14	2.7	.14
		2	Sometimes	35	36	48	37	24	42	75	37							
		3	Often	40	42	59	46	25	44	82	41							
		4	Very often	20	21	19	15	8	14	35	17							
		Total	96	100	129	100	57	100	201	100								
g. Connected ideas from your courses to your prior experiences and knowledge	RIconnect	1	Never	1	1	5	4	0	0	3	2	3.1	3.0	.14	3.0	.14	3.0	.15
		2	Sometimes	18	19	29	22	15	27	45	23							
		3	Often	46	48	58	45	26	46	101	51							
		4	Very often	30	32	38	29	15	27	50	25							
		Total	95	100	130	100	56	100	199	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	24	25	29	22	20	34	43	21	2.0	2.1	-.06	2.0	.03	2.1	-.16
		2	Sometimes	52	54	72	55	24	41	106	52							
		3	Often	15	16	22	17	9	16	33	16							
		4	Very often	5	5	7	5	5	9	20	10							
		Total	96	100	130	100	58	100	202	100								
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	SFotherwork	1	Never	52	54	67	52	32	55	105	52	1.7	1.6	.02	1.6	.06	1.7	-.04
		2	Sometimes	29	30	48	37	18	31	64	32							
		3	Often	11	11	10	8	7	12	23	11							
		4	Very often	4	4	5	4	1	2	10	5							
		Total	96	100	130	100	58	100	202	100								

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD	Your first-year students compared with					
Item wording or description	Variable name ⁱ	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	30	32	47	36	24	41	65	32	1.9	1.9	.08	1.8	.21	2.0	-.04
		2	Sometimes	48	51	58	45	25	43	94	47							
		3	Often	9	10	21	16	8	14	30	15							
		4	Very often	7	7	4	3	1	2	13	6							
		Total	94	100	130	100	58	100	202	100								
d. Discussed your academic performance with a faculty member	SFperform	1	Never	38	40	42	33	13	22	55	27	1.8	1.9	-.10	2.0	-.26	2.0	-.22
		2	Sometimes	43	45	61	47	32	55	103	51							
		3	Often	9	9	22	17	11	19	29	14							
		4	Very often	6	6	4	3	2	3	14	7							
		Total	96	100	129	100	58	100	201	100								
4. During the current school year, how much has your coursework emphasized the following?																		
a. Memorizing course material	memorize	1	Very little	3	3	3	2	0	0	10	5	2.9	2.9	-.10	2.8	.03	2.9	-.02
		2	Some	27	28	34	26	20	35	52	26							
		3	Quite a bit	46	48	61	47	26	46	92	46							
		4	Very much	20	21	32	25	11	19	48	24							
		Total	96	100	130	100	57	100	202	100								
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	0	0	3	2	1	2	11	5	3.2	3.1	.15	3.1	.14	3.0	.23
		2	Some	18	19	19	15	11	19	32	16							
		3	Quite a bit	42	44	73	56	28	48	102	51							
		4	Very much	36	38	35	27	18	31	56	28							
		Total	96	100	130	100	58	100	201	100								
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	2	2	6	5	3	5	13	6	2.9	2.9	-.03	2.9	-.07	2.9	.01
		2	Some	31	33	28	22	12	21	48	24							
		3	Quite a bit	36	38	65	51	27	47	91	45							
		4	Very much	25	27	29	23	15	26	50	25							
		Total	94	100	128	100	57	100	202	100								
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	7	7	11	8	2	3	16	8	2.5	2.7	-.17	2.9 *	-.42	2.7	-.21
		2	Some	41	44	42	32	15	26	62	31							
		3	Quite a bit	34	36	54	42	29	50	89	44							
		4	Very much	12	13	23	18	12	21	36	18							
		Total	94	100	130	100	58	100	203	100								

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your first-year students compared with					
														UMD Peers		Competitors		NSSE Carnegie	
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	6	6	6	5	2	4	13	6	2.6	2.8	-.21	2.9 *	-.34	2.8	-.15	
		2	Some	40	42	38	29	14	25	62	31								
		3	Quite a bit	31	33	59	46	27	47	86	42								
		4	Very much	18	19	26	20	14	25	42	21								
		Total	95	100	129	100	57	100	203	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	1	6	5	1	2	6	3	2.9	3.0	-.04	3.0	-.09	3.1	-.21	
		2	Some	20	21	26	20	16	28	38	19								
		3	Quite a bit	59	61	64	49	23	40	88	44								
		4	Very much	16	17	34	26	18	31	70	35								
		Total	96	100	130	100	58	100	202	100									
b. Taught course sessions in an organized way	ETorganize	1	Very little	4	4	4	3	2	4	6	3	2.9	2.9	-.04	3.1 *	-.34	3.1	-.23	
		2	Some	19	20	34	26	8	14	42	21								
		3	Quite a bit	57	59	60	47	27	47	85	43								
		4	Very much	16	17	31	24	20	35	67	34								
		Total	96	100	129	100	57	100	200	100									
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	1	1	5	4	1	2	5	2	3.0	3.0	-.01	3.1	-.12	3.1	-.10	
		2	Some	23	24	29	22	14	24	48	24								
		3	Quite a bit	48	51	59	45	23	40	80	40								
		4	Very much	23	24	37	28	20	34	69	34								
		Total	95	100	130	100	58	100	202	100									
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	8	8	22	17	4	7	19	10	2.6	2.5	.09	2.7	-.09	2.8	-.21	
		2	Some	39	41	42	32	21	37	55	28								
		3	Quite a bit	32	33	42	32	21	37	73	37								
		4	Very much	17	18	24	18	11	19	53	27								
		Total	96	100	130	100	57	100	200	100									
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	9	9	17	13	3	5	17	9	2.4	2.6	-.15	2.8 *	-.41	2.8 ***	-	
		2	Some	46	48	43	33	18	31	60	30								
		3	Quite a bit	30	32	48	37	27	47	68	34								
		4	Very much	10	11	21	16	10	17	55	28								
		Total	95	100	129	100	58	100	200	100									

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD	Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options										UMD Peers		Competitors		NSSE Carnegie	
				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	0	0	5	4	4	7	11	5	3.0	3.0	.00	3.0	.02	3.0	-.02
		2	Sometimes	26	27	32	25	15	26	44	22							
		3	Often	46	48	54	42	18	31	83	41							
		4	Very often	24	25	39	30	21	36	65	32							
		Total	96	100	130	100	58	100	203	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	14	15	20	16	12	21	38	19	2.3	2.5	-.17	2.4	-.05	2.4	-.10
		2	Sometimes	46	48	45	35	20	34	71	35							
		3	Often	26	27	45	35	18	31	61	30							
		4	Very often	10	10	19	15	8	14	32	16							
		Total	96	100	129	100	58	100	202	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	6	6	17	13	12	21	32	16	2.5	2.4	.10	2.5	.02	2.5	.05
		2	Sometimes	46	48	59	45	14	24	76	37							
		3	Often	34	35	37	28	24	41	65	32							
		4	Very often	10	10	17	13	8	14	30	15							
		Total	96	100	130	100	58	100	203	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 (Recoded version of wrshort created by NSSE. Values are estimated number of papers, reports, etc.)	0	None	10	11	4	3	3	6	14	7	6.3	7.3	-.18	5.6	.12	6.6	-.06
		1.5	1-2	15	16	23	18	10	19	44	22							
		4	3-5	38	40	39	30	24	44	63	32							
		8	6-10	15	16	33	26	11	20	41	21							
		13	11-15	7	7	18	14	3	6	13	7							
		18	16-20	4	4	4	3	1	2	9	5							
		23	More than 20	6	6	8	6	2	4	15	8							
		Total	95	100	129	100	54	100	199	100								
b. Between 6 and 10 pages	wrmednum (Recoded version of wrmed created by NSSE. Values are estimated number of papers, reports, etc.)	0	None	39	41	43	35	25	44	74	38	1.7	2.4 *	-.27	2.3	-.20	2.3	-.20
		1.5	1-2	41	43	39	32	18	32	65	34							
		4	3-5	11	11	24	20	7	12	34	18							
		8	6-10	3	3	13	11	5	9	14	7							
		13	11-15	1	1	3	2	1	2	5	3							
		18	16-20	1	1	0	0	0	0	2	1							
		23	More than 20	0	0	0	0	1	2	0	0							
		Total	96	100	122	100	57	100	194	100								

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		Your first-year students compared with						
												UMD	UMD Peers		Competitors		NSSE Carnegie	
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	82	87	85	71	48	87	142	75	.6	1.3	-.25	.9	-.10	.8	-.09
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	6	6	16	13	2	4	31	16							
	4	3-5	3	3	10	8	3	5	9	5								
	8	6-10	0	0	5	4	0	0	4	2								
	13	11-15	3	3	3	3	1	2	2	1								
	18	16-20	0	0	1	1	0	0	1	1								
	23	More than 20	0	0	0	0	1	2	0	0								
	Total		94	100	120	100	55	100	189	100								
Estimated number of assigned pages of student writing.	wrpages											41.8	60.1 * ▽	-.28	45.5	-.05	49.6	-.13
(Continuous variable, recoded and summed by NSSE from wrshort, wrmed, and wrlong. Values are estimated pages of assigned writing.)																		
8. During the current school year, about how often have you had discussions with people from the following groups?																		
a. People of a race or ethnicity other than your own	DDrace	1	Never	7	7	6	5	4	7	17	8	2.7	3.0 ** ▽	-.37	2.8	-.12	2.8	-.19
		2	Sometimes	40	42	33	25	19	33	57	28							
		3	Often	27	28	48	37	22	38	72	35							
		4	Very often	21	22	43	33	13	22	57	28							
		Total	95	100	130	100	58	100	203	100								
b. People from an economic background other than your own	DDeconomic	1	Never	6	6	4	3	3	5	15	7	2.9	3.0	-.10	2.9	-.07	2.8	.03
		2	Sometimes	24	25	40	31	16	28	61	30							
		3	Often	41	43	43	33	21	36	67	33							
		4	Very often	24	25	43	33	18	31	60	30							
		Total	95	100	130	100	58	100	203	100								
c. People with religious beliefs other than your own	DDreligion	1	Never	4	4	6	5	4	7	23	11	2.9	2.9	.05	2.8	.13	2.8	.14
		2	Sometimes	33	35	40	31	17	29	57	28							
		3	Often	24	26	47	37	24	41	65	32							
		4	Very often	33	35	35	27	13	22	58	29							
		Total	94	100	128	100	58	100	203	100								
d. People with political views other than your own	DDpolitical	1	Never	4	4	9	7	3	5	18	9	3.0	3.0	.04	2.9	.05	2.9	.11
		2	Sometimes	26	27	28	22	17	29	52	26							
		3	Often	32	34	53	41	18	31	67	33							
		4	Very often	33	35	40	31	20	34	65	32							
		Total	95	100	130	100	58	100	202	100								

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First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		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
9. During the current school year, about how often have you done the following?																		
a. Identified key information from reading assignments	LSreading	1	Never	3	3	7	5	3	5	9	4	2.8	2.8	.04	2.9	-.13	2.9	-.05
		2	Sometimes	29	30	38	29	12	21	54	27							
		3	Often	44	46	58	45	28	48	89	44							
		4	Very often	20	21	27	21	15	26	49	24							
		Total	96	100	130	100	58	100	201	100								
b. Reviewed your notes after class	LSnotes	1	Never	6	6	6	5	2	4	8	4	2.8	2.7	.05	2.9	-.19	2.9	-.14
		2	Sometimes	34	36	46	36	13	23	58	29							
		3	Often	30	32	53	41	28	49	82	41							
		4	Very often	25	26	24	19	14	25	54	27							
		Total	95	100	129	100	57	100	202	100								
c. Summarized what you learned in class or from course materials	LSummary	1	Never	6	6	13	10	8	14	16	8	2.7	2.7	.03	2.7	-.06	2.8	-.08
		2	Sometimes	37	39	44	34	13	23	69	35							
		3	Often	35	36	47	36	21	38	64	32							
		4	Very often	18	19	25	19	14	25	51	26							
		Total	96	100	129	100	56	100	200	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	1	1	0	0	2	1	5.6	5.4	.18	5.7	-.09	5.5	.14
		2	0	0	0	0	0	0	2	1								
		3	1	1	6	5	2	3	7	3								
		4	9	9	21	16	4	7	26	13								
		5	31	32	34	26	17	29	62	31								
		6	39	41	43	33	21	36	58	29								
		7	Very much	16	17	25	19	14	24	45	22							
		Total	96	100	130	100	58	100	202	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	11	12	16	12	4	7	14	7	8%	8%	.03	2%	.33	6%	.10	
		Do not plan to do	1	1	4	3	3	5	11	5								
		Plan to do	75	79	100	77	50	86	166	82								
		Done or in progress	8	8	10	8	1	2	12	6								
		Total	95	100	130	100	58	100	203	100								
		(Means indicate the percentage who responded "Done or in progress.")																

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
												Your first-year students compared with							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
Item wording or description	Variable name ⁱ	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	44	46	46	35	14	24	66	33	12%	15%	-.09	10%	.04	9%	.07	
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	15	16	24	18	20	34	57	28									
	Plan to do	25	26	41	32	18	31	60	30										
	Done or in progress	11	12	19	15	6	10	19	9										
	Total	95	100	130	100	58	100	202	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	43	46	36	28	16	28	63	31	4%	31% *** ▼	-.77	23% *** ▼	-.58	11% * ▼	-.27	
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	23	24	30	23	15	26	67	33									
	Plan to do	24	26	23	18	13	23	49	24										
	Done or in progress	4	4	40	31	13	23	23	11										
	Total	94	100	129	100	57	100	202	100										
d. Participate in a study abroad program	abroad		Have not decided	24	26	49	38	18	31	55	27	3%	2%	.05	0%	.36	1%	.11	
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	40	43	40	31	25	43	103	51									
	Plan to do	27	29	37	29	15	26	41	20										
	Done or in progress	3	3	3	2	0	0	3	1										
	Total	94	100	129	100	58	100	202	100										
e. Work with a faculty member on a research project	research		Have not decided	40	42	51	40	25	44	86	43	4%	5%	-.06	4%	.04	4%	-.01	
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	12	13	15	12	9	16	33	16									
	Plan to do	39	41	56	43	21	37	73	36										
	Done or in progress	4	4	7	5	2	4	9	4										
	Total	95	100	129	100	57	100	201	100										
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone		Have not decided	27	29	34	26	12	21	62	31	4%	3%	.06	3%	.04	3%	.04	
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	5	5	11	8	4	7	20	10									
	Plan to do	58	62	81	62	40	69	113	56										
	Done or in progress	4	4	4	3	2	3	7	3										
	Total	94	100	130	100	58	100	202	100										

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

	servcourse	1	None	61	64	85	66	29	50	90	45	1.5	1.4	.11	1.6	-.20	1.6	-.23
		2	Some	27	28	36	28	24	41	97	49							
		3	Most	4	4	7	5	4	7	10	5							
		4	All	3	3	0	0	1	2	2	1							
		Total		95	100	128	100	58	100	199	100							

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your first-year students compared with					
		UMD Peers												Competitors		NSSE Carnegie			
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
13. Indicate the quality of your interactions with the following people at your institution.																			
a. Students	Q1student	1	Poor	2	2	2	2	0	0	2	1	5.5	5.5	.01	5.9 *	-.35	5.6	-.08	
		2		2	2	2	2	0	0	4	2								
		3		6	6	3	2	0	0	10	5								
		4		2	2	15	12	3	5	14	7								
		5		28	29	36	28	16	28	44	22								
		6		32	33	41	32	18	31	72	36								
		7	Excellent	23	24	30	23	19	33	54	27								
		—	Not applicable	1	1	1	1	2	3	2	1								
		Total		96	100	130	100	58	100	202	100								
b. Academic advisors	Q1advisor	1	Poor	4	4	12	9	2	4	7	3	5.1	4.8	.19	4.9	.16	5.1	.00	
		2		1	1	6	5	4	7	10	5								
		3		6	6	10	8	9	16	16	8								
		4		15	16	16	13	8	14	29	14								
		5		23	24	28	22	12	21	45	22								
		6		23	24	27	21	3	5	34	17								
		7	Excellent	18	19	26	20	18	32	57	28								
		—	Not applicable	6	6	2	2	0	0	4	2								
		Total		96	100	127	100	56	100	202	100								
c. Faculty	Q1faculty	1	Poor	2	2	4	3	1	2	7	3	5.1	5.1	.02	5.1	.00	5.3	-.15	
		2		4	4	5	4	0	0	8	4								
		3		4	4	6	5	5	9	7	3								
		4		14	15	21	16	11	19	21	10								
		5		28	29	32	25	17	30	48	24								
		6		33	34	45	35	11	19	65	32								
		7	Excellent	10	10	15	12	10	18	44	22								
		—	Not applicable	1	1	2	2	2	4	2	1								
		Total		96	100	130	100	57	100	202	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your first-year students compared with				
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ		
d. Student services staff (career services, student activities, housing, etc.)	Qlstaff	1	Poor	4	4	6	5	1	2	6	3	5.0	4.9	.07	5.1	-.03	5.1	-.06
		2		2	2	5	4	2	3	8	4							
		3		6	6	7	5	5	9	11	5							
		4		14	15	24	18	9	16	27	13							
		5		28	29	24	18	11	19	34	17							
		6		19	20	35	27	17	29	47	23							
		7	Excellent	16	17	17	13	8	14	36	18							
		—	Not applicable	7	7	12	9	5	9	34	17							
		Total		96	100	130	100	58	100	203	100							
e. Other administrative staff and offices (registrar, financial aid, etc.)	Qladmin	1	Poor	4	4	8	6	1	2	8	4	4.9	4.8	.01	4.9	-.06	5.2	-.19
		2		3	3	2	2	2	3	9	4							
		3		4	4	13	10	6	10	18	9							
		4		19	20	19	15	12	21	21	10							
		5		27	28	28	22	11	19	36	18							
		6		14	15	25	19	13	22	49	24							
		7	Excellent	13	14	20	15	9	16	49	24							
		—	Not applicable	12	13	15	12	4	7	13	6							
		Total		96	100	130	100	58	100	203	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	2	2	1	1	0	0	3	1	3.2	3.3	-.08	3.3	-.18	3.2	.02
		2	Some	9	9	16	12	6	11	29	14							
		3	Quite a bit	51	54	60	46	26	46	96	47							
		4	Very much	33	35	53	41	25	44	75	37							
		Total		95	100	130	100	57	100	203	100							
b. Providing support to help students succeed academically	SEacademic	1	Very little	3	3	3	2	1	2	6	3	3.0	3.1	-.19	3.1	-.13	3.1	-.15
		2	Some	22	23	24	18	10	18	42	21							
		3	Quite a bit	44	47	58	45	30	53	82	41							
		4	Very much	25	27	45	35	16	28	72	36							
		Total		94	100	130	100	57	100	202	100							
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	5	5	8	6	2	4	9	4	3.1	3.1	-.04	3.1	-.06	3.1	.00
		2	Some	15	16	25	19	13	23	44	22							
		3	Quite a bit	45	47	44	34	19	33	77	38							
		4	Very much	30	32	52	40	23	40	73	36							
		Total		95	100	129	100	57	100	203	100							

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		Your first-year students compared with						
												UMD		UMD Peers		Competitors		NSSE Carnegie
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. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	SEdiverse	1	Very little	22	23	11	9	6	11	21	10	2.4	2.7 *	-0.31	2.7	-0.31	2.7 *	-0.34
		2	Some	29	31	40	31	18	32	54	27							
		3	Quite a bit	27	28	55	43	19	33	87	43							
		4	Very much	17	18	23	18	14	25	41	20							
		Total	95	100	129	100	57	100	203	100								
e. Providing opportunities to be involved socially	SEsocial	1	Very little	5	5	6	5	3	5	8	4	2.9	3.0	-0.12	3.0	-0.14	3.0	-0.12
		2	Some	24	25	30	23	12	21	49	24							
		3	Quite a bit	42	44	51	40	23	40	80	40							
		4	Very much	24	25	42	33	19	33	65	32							
		Total	95	100	129	100	57	100	202	100								
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	SEwellness	1	Very little	6	6	7	5	3	5	12	6	2.7	3.0 *	-0.27	2.9	-0.15	3.0	-0.24
		2	Some	34	36	26	20	14	25	44	22							
		3	Quite a bit	33	35	57	45	27	47	85	42							
		4	Very much	22	23	38	30	13	23	60	30							
		Total	95	100	128	100	57	100	201	100								
g. Helping you manage your non-academic responsibilities (work, family, etc.)	SEnonacad	1	Very little	23	24	36	28	11	19	50	25	2.2	2.2	0.00	2.4	-0.21	2.3	-0.10
		2	Some	39	41	43	33	20	35	63	31							
		3	Quite a bit	22	23	38	29	18	32	67	33							
		4	Very much	10	11	12	9	8	14	22	11							
		Total	94	100	129	100	57	100	202	100								
h. Attending campus activities and events (performing arts, athletic events, etc.)	SEactivities	1	Very little	9	9	12	9	2	4	19	9	2.7	2.8	-0.17	2.9	-0.27	2.8	-0.13
		2	Some	34	36	29	23	17	30	52	26							
		3	Quite a bit	33	35	59	46	23	40	86	43							
		4	Very much	19	20	28	22	15	26	44	22							
		Total	95	100	128	100	57	100	201	100								
i. Attending events that address important social, economic, or political issues	SEevents	1	Very little	15	16	21	16	8	14	37	18	2.3	2.4	-0.10	2.4	-0.17	2.4	-0.09
		2	Some	43	46	49	38	25	45	78	39							
		3	Quite a bit	29	31	48	37	13	23	61	30							
		4	Very much	7	7	11	9	10	18	26	13							
		Total	94	100	129	100	56	100	202	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k																				
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your first-year students compared with																		
Item wording or description	Variable name ⁱ	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)	tmpprephrs (Recoded version of tmpprep created by NSSE. Values are estimated number of hours per week.)	0 3 8 13 18 23 28 33 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	2 5 17 24 23 13 7 5 96	2 5 18 25 24 14 7 5 100	0 14 23 34 22 17 8 11 129	0 11 18 26 17 13 6 9 100	0 7 11 14 13 6 5 2 58	0 12 19 24 22 10 9 3 100	2 30 44 36 39 26 12 14 203	1 15 22 18 19 13 6 7 100	16.0	15.8	.02	15.0	.13	14.8	.14														
b. Participating in co-curricular activities (organizations, campus publications, student government, fraternity or sorority, intercollegiate or intramural sports, etc.)	tmcocurrhrs (Recoded version of tmcocurr created by NSSE. Values are estimated number of hours per week.)	0 3 8 13 18 23 28 33 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	23 36 16 10 6 3 1 1 96	24 38 17 10 6 3 1 1 100	50 44 17 11 4 3 0 1 130	38 34 13 8 3 2 0 0 100	16 24 9 4 4 0 1 0 58	28 41 16 7 7 0 2 0 100	89 45 34 13 7 8 2 4 202	44 22 17 6 3 4 1 2 100								6.3	4.5 *	.28	5.1	.18	5.3	.13							
c. Working for pay on campus	tmworkonhrs (Recoded version of tmworkon created by NSSE. Values are estimated number of hours per week.)	0 3 8 13 18 23 28 33 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	81 2 6 5 2 0 0 0 96	84 2 6 5 2 0 0 0 100	109 3 5 7 5 1 0 0 130	84 2 4 5 4 1 0 0 100	41 3 4 7 3 0 0 0 58	71 5 7 12 5 0 0 0 100	167 3 13 10 5 3 1 0 0 202	83 1 6 5 2 1 0 0 100															1.6	1.9	-.07	3.2	-.33	2.1	-.10

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your first-year students compared with					
														UMD Peers		Competitors		NSSE Carnegie	
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
d. Working for pay off campus	tmworkoffhrs	0	0 hrs	79	83	94	73	37	64	115	58	2.3	4.1	-.25	5.1 *	-.42	7.8 ***	-.57	
	(Recoded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	2	2	4	3	2	3	6	3								
		8	6-10 hrs	2	2	8	6	5	9	15	8								
		13	11-15 hrs	5	5	7	5	6	10	14	7								
		18	16-20 hrs	6	6	5	4	6	10	14	7								
		23	21-25 hrs	1	1	5	4	0	0	14	7								
		28	26-30 hrs	0	0	3	2	0	0	8	4								
		33	More than 30 hrs	0	0	2	2	2	3	13	7								
		Total			95	100	128	100	58	100	199								100
Estimated number of hours working for pay	tmworkhrs											3.9	6.0	-.22	8.3 **	-.51	9.8 ***	-.55	
	(Continuous variable created by NSSE)																		
e. Doing community service or volunteer work	tmservehrs	0	0 hrs	67	70	81	63	40	69	123	61	1.9	2.7	-.15	2.1	-.03	2.6	-.13	
	(Recoded version of tmserve created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	22	23	33	26	13	22	53	26								
		8	6-10 hrs	2	2	5	4	2	3	13	6								
		13	11-15 hrs	2	2	4	3	1	2	4	2								
		18	16-20 hrs	1	1	1	1	0	0	4	2								
		23	21-25 hrs	1	1	2	2	1	2	2	1								
		28	26-30 hrs	0	0	0	0	1	2	2	1								
		33	More than 30 hrs	1	1	3	2	0	0	1	0								
		Total			96	100	129	100	58	100	202								100
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs	0	0 hrs	1	1	4	3	0	0	6	3	14.0	12.0	.24	12.7	.15	12.0 *	.25	
	(Recoded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	15	16	25	19	8	14	36	18								
		8	6-10 hrs	19	20	40	31	24	41	70	35								
		13	11-15 hrs	23	24	25	19	12	21	35	17								
		18	16-20 hrs	16	17	16	12	4	7	23	11								
		23	21-25 hrs	12	13	8	6	3	5	11	5								
		28	26-30 hrs	5	5	5	4	1	2	13	6								
		33	More than 30 hrs	4	4	7	5	6	10	8	4								
		Total			95	100	130	100	58	100	202								100

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		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	81	84	98	77	49	84	146	73	1.4	2.2	-.16	2.4	-.20	3.0 *	▽	
	(Recoded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	6	6	13	10	2	3	24	12								
		8	6-10 hrs	1	1	8	6	1	2	10	5								
		13	11-15 hrs	7	7	3	2	2	3	3	2								
		18	16-20 hrs	1	1	1	1	2	3	6	3								
		23	21-25 hrs	0	0	1	1	0	0	4	2								
		28	26-30 hrs	0	0	0	0	0	0	0	0								
		33	More than 30 hrs	0	0	3	2	2	3	6	3								
		Total		96	100	127	100	58	100	199	100								
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	59	61	40	31	24	42	46	23	2.3	4.1 **	▽	-38	2.8	-.12	4.7 ***	▽
	(Recoded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	25	26	55	43	24	42	94	47								
		8	6-10 hrs	5	5	23	18	7	12	44	22								
		13	11-15 hrs	4	4	8	6	1	2	8	4								
		18	16-20 hrs	3	3	1	1	1	2	5	2								
		23	21-25 hrs	0	0	1	1	0	0	1	0								
		28	26-30 hrs	0	0	0	0	0	0	0	0								
		33	More than 30 hrs	0	0	1	1	0	0	3	1								
		Total		96	100	129	100	57	100	201	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	22	23	24	19	8	14	52	26	2.2	2.3	-.17	2.5 *	▽	-36	2.3	-.09
(Revised for 2014. Comparison data are limited to NSSE 2014 participating institutions.)		2	Some	46	49	61	48	23	40	84	42								
		3	About half	15	16	25	20	18	31	32	16								
		4	Most	10	11	12	9	7	12	21	11								
		5	Almost all	1	1	6	5	2	3	10	5								
			Total	94	100	128	100	58	100	199	100								
tmreadinghrs												4.9	5.7	-.18	6.0	-.25	5.6	-.13	
(Continuous variable created by NSSE. Calculated as a proportion of tmprephrs based on reading, where Very little= .10; Some= .25; About half= .50; Most= .75; Almost all= .90)																			

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD	Your first-year students compared with					
		UMD Peers											Competitors		NSSE Carnegie			
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
	tmreadinghrscol	1	0 hrs	2	2	0	0	0	0	2	1							
	(Collapsed version of tmreadinghrs created by NSSE.)	2	More than zero, up to 5 hrs	58	62	72	57	32	55	130	65							
		3	More than 5, up to 10 hrs	26	28	37	29	15	26	33	17							
		4	More than 10, up to 15 hrs	5	5	8	6	8	14	12	6							
		5	More than 15, up to 20 hrs	3	3	6	5	2	3	11	6							
		6	More than 20, up to 25 hrs	0	0	3	2	1	2	7	4							
		7	More than 25 hrs	0	0	1	1	0	0	4	2							
		Total		94	100	127	100	58	100	199	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	10	10	13	10	2	3	18	9	2.6	2.7	-.07	2.9	-.30	2.7	-.10
	2	Some	39	41	37	29	19	33	63	32								
	3	Quite a bit	27	28	60	47	22	38	84	42								
	4	Very much	20	21	19	15	15	26	35	18								
	Total		96	100	129	100	58	100	200	100								
b. Speaking clearly and effectively	pgspeak	1	Very little	15	16	23	18	3	5	26	13	2.5	2.5	-.02	2.7	-.25	2.5	-.07
	2	Some	34	35	38	29	24	41	74	37								
	3	Quite a bit	33	34	49	38	18	31	63	32								
	4	Very much	14	15	19	15	13	22	35	18								
	Total		96	100	129	100	58	100	198	100								
c. Thinking critically and analytically	pgthink	1	Very little	2	2	5	4	2	4	8	4	3.1	3.1	.09	3.1	.06	3.1	.06
	2	Some	19	20	22	17	10	18	34	17								
	3	Quite a bit	39	41	62	48	26	46	88	45								
	4	Very much	36	38	40	31	19	33	67	34								
	Total		96	100	129	100	57	100	197	100								
d. Analyzing numerical and statistical information	pganalyze	1	Very little	3	3	6	5	2	3	5	3	3.1	2.9	.23	3.0	.11	3.1	.09
	2	Some	17	18	31	24	14	24	43	22								
	3	Quite a bit	41	43	58	45	22	38	88	44								
	4	Very much	35	36	35	27	20	34	64	32								
	Total		96	100	130	100	58	100	200	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		Your first-year students compared with						
												UMD		UMD Peers		Competitors		NSSE Carnegie
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	12	13	14	11	7	12	22	11	2.6	2.6	.04	2.6	-.01	2.7	-.09
		2	Some	30	31	54	42	20	34	59	30							
		3	Quite a bit	39	41	38	29	20	34	80	40							
		4	Very much	15	16	24	18	11	19	39	20							
		Total	96	100	130	100	58	100	200	100								
f. Working effectively with others	pgothers	1	Very little	2	2	10	8	4	7	17	9	2.8	2.8	-.02	2.8	-.05	2.9	-.07
		2	Some	31	32	34	26	17	29	46	23							
		3	Quite a bit	47	49	56	43	21	36	84	42							
		4	Very much	16	17	30	23	16	28	53	27							
		Total	96	100	130	100	58	100	200	100								
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	16	17	24	18	5	9	37	19	2.4	2.5	-.13	2.7	-.31	2.5	-.16
		2	Some	39	41	39	30	23	40	55	28							
		3	Quite a bit	30	31	45	35	17	29	73	37							
		4	Very much	11	11	22	17	13	22	35	18							
		Total	96	100	130	100	58	100	200	100								
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	24	25	20	15	9	16	28	14	2.2	2.6 ** ▼	-.38	2.6 * ▼	-.40	2.6 ** ▼	-.39
		2	Some	38	40	42	32	20	34	68	34							
		3	Quite a bit	23	24	42	32	15	26	65	33							
		4	Very much	10	11	26	20	14	24	39	20							
		Total	95	100	130	100	58	100	200	100								
i. Solving complex real-world problems	pgprobsolve	1	Very little	10	10	14	11	5	9	16	8	2.6	2.6	-.06	2.8	-.24	2.7	-.17
		2	Some	34	35	42	33	19	33	65	33							
		3	Quite a bit	37	39	49	38	16	28	71	36							
		4	Very much	15	16	24	19	18	31	47	24							
		Total	96	100	129	100	58	100	199	100								
j. Being an informed and active citizen	pgcitizen	1	Very little	13	14	18	14	9	16	33	17	2.4	2.5	-.06	2.4	-.03	2.5	-.11
		2	Some	40	43	52	40	22	39	68	34							
		3	Quite a bit	31	33	43	33	17	30	62	31							
		4	Very much	10	11	17	13	8	14	36	18							
		Total	94	100	130	100	56	100	199	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

First-Year Students^a in Engineering

First-Year Students ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k									
																Your first-year students compared with					
Item wording or description	Variable name ^l	Values ^m	Response options	UMD		UMD Peers		Competitors		NSSE Carnegie		UMD	UMD Peers	Competitors	NSSE Carnegie						
				Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ			
18. How would you evaluate your entire educational experience at this institution?																					
	evalexp	1	Poor	2	2	4	3	1	2	5	2	3.1	3.1	.06	3.2	-.19	3.1				
		2	Fair	11	11	15	12	1	2	24	12										
		3	Good	58	60	80	62	40	69	113	56										
		4	Excellent	25	26	31	24	16	28	60	30										
		Total		96	100	130	100	58	100	202	100										
19. If you could start over again, would you go to the <i>same institution</i> you are now attending?																					
	sameinst	1	Definitely no	3	3	4	3	1	2	6	3	3.2	3.2	.02	3.4	-.24	3.2				
		2	Probably no	9	9	12	9	4	7	23	11										
		3	Probably yes	46	48	65	50	23	40	94	46										
		4	Definitely yes	38	40	49	38	30	52	80	39										
		Total		96	100	130	100	58	100	203	100										

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
														UMD Peers		Competitors		NSSE Carnegie	
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	5	6	7	4	13	8	9	4	2.9	2.9	.00	2.8	.06	2.9	-.06	
		2	Sometimes	25	29	61	35	47	28	84	33								
		3	Often	31	36	53	30	60	36	78	30								
		4	Very often	25	29	55	31	45	27	85	33								
		Total	86	100	176	100	165	100	256	100									
b. Prepared two or more drafts of a paper or assignment before turning it in	drafts	1	Never	18	21	50	28	36	22	61	24	2.3	2.3	-.02	2.4	-.14	2.3	-.02	
		2	Sometimes	38	45	56	32	57	35	97	38								
		3	Often	18	21	40	23	41	25	62	24								
		4	Very often	11	13	30	17	30	18	35	14								
		Total	85	100	176	100	164	100	255	100									
c. Come to class without completing readings or assignments	unpreparedr <i>(Reverse-coded version of unprepared created by NSSE.)</i>	1	Very often	3	3	16	9	10	6	18	7	2.8	3.0	-.14	3.0 *	-.27	3.0	-.16	
		2	Often	20	23	20	11	15	9	36	14								
		3	Sometimes	50	58	95	54	97	59	135	53								
		4	Never	13	15	45	26	43	26	67	26								
		Total	86	100	176	100	165	100	256	100									
d. Attended an art exhibit, play or other arts performance (dance, music, etc.)	attendart	1	Never	42	49	100	57	99	61	145	57	1.7	1.6	.08	1.6	.15	1.6	.08	
		2	Sometimes	33	38	52	30	45	28	77	30								
		3	Often	8	9	15	9	12	7	18	7								
		4	Very often	3	3	8	5	7	4	14	6								
		Total	86	100	175	100	163	100	254	100									
e. Asked another student to help you understand course material	CLaskhelp	1	Never	3	3	4	2	23	14	16	6	2.8	2.8	.00	2.5 *	.32	2.7	.17	
		2	Sometimes	30	35	66	38	62	38	105	41								
		3	Often	32	37	62	35	48	29	81	32								
		4	Very often	21	24	44	25	31	19	54	21								
		Total	86	100	176	100	164	100	256	100									
f. Explained course material to one or more students	CLexplain	1	Never	1	1	0	0	11	7	4	2	3.2	3.1	.12	2.7 ***	.54	3.0	.22	
		2	Sometimes	16	19	44	25	54	33	67	26								
		3	Often	37	43	74	42	69	42	111	44								
		4	Very often	32	37	57	33	30	18	72	28								
		Total	86	100	175	100	164	100	254	100									

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD	UMD Peers		Competitors		NSSE Carnegie		UMD	Your seniors compared with						
												UMD Peers		Competitors		NSSE Carnegie		
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
g. Prepared for exams by discussing or working through course material with other students	CLstudy	1	Never	9	10	16	9	35	21	30	12	2.9	2.9	-.01	2.6 *	.33	2.8	.09
		2	Sometimes	20	23	45	26	40	24	64	25							
		3	Often	26	30	50	29	50	30	83	32							
		4	Very often	31	36	64	37	40	24	79	31							
		Total	86	100	175	100	165	100	256	100								
h. Worked with other students on course projects or assignments	CLproject	1	Never	3	3	2	1	15	9	4	2	3.2	3.3	-.05	3.1	.17	3.2	.00
		2	Sometimes	14	16	32	18	19	12	46	18							
		3	Often	28	33	56	32	67	41	90	35							
		4	Very often	41	48	86	49	64	39	116	45							
		Total	86	100	176	100	165	100	256	100								
i. Given a course presentation	present	1	Never	5	6	15	9	35	21	30	12	2.7	2.9	-.19	2.4 *	.27	2.7	.00
		2	Sometimes	38	44	48	27	51	31	78	31							
		3	Often	22	26	58	33	51	31	87	34							
		4	Very often	21	24	54	31	27	16	59	23							
		Total	86	100	175	100	164	100	254	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	1	1	3	2	3	2	3	1	3.2	2.9	.25	3.0	.24	3.0 *	.25
		2	Sometimes	19	22	51	29	45	27	76	30							
		3	Often	32	37	74	42	73	44	105	41							
		4	Very often	34	40	48	27	44	27	70	28							
		Total	86	100	176	100	165	100	254	100								
b. Connected your learning to societal problems or issues	RIsocietal	1	Never	7	8	29	17	24	15	49	20	2.5	2.4	.07	2.4	.04	2.4	.11
		2	Sometimes	40	47	70	40	68	42	98	39							
		3	Often	31	36	53	30	45	28	66	26							
		4	Very often	8	9	23	13	24	15	37	15							
		Total	86	100	175	100	161	100	250	100								
c. Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments	RIdiverse	1	Never	33	38	73	41	58	35	93	37	1.8	1.9	-.14	2.0	-.23	2.0	-.23
		2	Sometimes	42	49	63	36	68	41	95	38							
		3	Often	9	10	27	15	24	15	41	16							
		4	Very often	2	2	13	7	14	9	23	9							
		Total	86	100	176	100	164	100	252	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
														UMD Peers		Competitors		NSSE Carnegie	
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	14	16	22	13	21	13	30	12	2.4	2.5	-.08	2.5	-.04	2.5	-.11	
		2	Sometimes	32	37	66	38	63	38	93	37								
		3	Often	28	33	64	36	63	38	94	37								
		4	Very often	12	14	24	14	18	11	37	15								
		Total	86	100	176	100	165	100	254	100									
e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	RIperspect	1	Never	9	10	18	10	15	9	23	9	2.5	2.6	-.08	2.6	-.09	2.7	-.16	
		2	Sometimes	36	42	68	39	61	37	90	36								
		3	Often	28	33	58	33	63	38	88	35								
		4	Very often	13	15	32	18	25	15	52	21								
		Total	86	100	176	100	164	100	253	100									
f. Learned something that changed the way you understand an issue or concept	RInewview	1	Never	4	5	13	7	8	5	13	5	2.7	2.7	.06	2.7	-.01	2.8	-.03	
		2	Sometimes	28	33	57	33	57	35	84	33								
		3	Often	38	45	77	44	67	41	106	42								
		4	Very often	14	17	28	16	31	19	50	20								
		Total	84	100	175	100	163	100	253	100									
g. Connected ideas from your courses to your prior experiences and knowledge	RIconnect	1	Never	2	2	5	3	2	1	4	2	3.2	3.0	.25	3.1	.13	3.1	.09	
		2	Sometimes	13	15	43	24	37	22	53	21								
		3	Often	37	44	78	44	72	44	107	42								
		4	Very often	32	38	50	28	54	33	88	35								
		Total	84	100	176	100	165	100	252	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	18	21	42	24	45	27	61	24	2.4	2.2	.15	2.1	.22	2.2	.12	
		2	Sometimes	34	40	72	41	67	41	105	41								
		3	Often	19	22	40	23	37	22	56	22								
		4	Very often	15	17	20	11	16	10	33	13								
		Total	86	100	174	100	165	100	255	100									
b. Worked with a faculty member on activities other than coursework (committees, student groups, etc.)	SFotherwork	1	Never	29	34	70	40	81	49	105	41	2.1	2.0	.12	1.9	.24	2.0	.10	
		2	Sometimes	29	34	47	27	38	23	60	24								
		3	Often	15	17	39	23	29	18	64	25								
		4	Very often	13	15	17	10	17	10	25	10								
		Total	86	100	173	100	165	100	254	100									

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		Your seniors compared with						
												UMD	UMD Peers	Effect size ⁿ	Competitors	Effect size ⁿ	NSSE Carnegie	Effect size ⁿ
Item wording or description	Variable name ⁱ	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	16	19	30	18	44	27	42	17	2.4	2.3	.10	2.1 *	.34	2.4	.06
		2	Sometimes	35	41	71	42	69	42	108	43							
		3	Often	18	21	52	31	39	24	72	28							
		4	Very often	17	20	17	10	11	7	31	12							
		Total	86	100	170	100	163	100	253	100								
d. Discussed your academic performance with a faculty member	SFperform	1	Never	28	33	37	21	47	28	59	23	2.0	2.2	-.25	2.0	-.04	2.2	-.24
		2	Sometimes	44	51	86	49	81	49	117	46							
		3	Often	4	5	34	20	29	18	53	21							
		4	Very often	10	12	17	10	8	5	25	10							
		Total	86	100	174	100	165	100	254	100								
4. During the current school year, how much has your coursework emphasized the following?																		
a. Memorizing course material	memorize	1	Very little	9	10	14	8	12	7	26	10	2.5	2.6	-.18	2.5	.00	2.6	-.10
		2	Some	36	42	72	41	84	51	108	42							
		3	Quite a bit	33	38	56	32	48	29	77	30							
		4	Very much	8	9	33	19	20	12	45	18							
		Total	86	100	175	100	164	100	256	100								
b. Applying facts, theories, or methods to practical problems or new situations	HOapply	1	Very little	0	0	6	3	1	1	8	3	3.5	3.2 **	.39	3.3	.24	3.2 **	.40
		2	Some	8	9	28	16	25	15	38	15							
		3	Quite a bit	28	33	68	39	59	36	109	43							
		4	Very much	50	58	73	42	79	48	101	39							
		Total	86	100	175	100	164	100	256	100								
c. Analyzing an idea, experience, or line of reasoning in depth by examining its parts	HOanalyze	1	Very little	4	5	10	6	4	2	13	5	3.2	3.0	.13	3.1	.03	3.0	.16
		2	Some	16	19	37	21	30	19	61	24							
		3	Quite a bit	28	33	62	36	68	42	88	35							
		4	Very much	38	44	65	37	60	37	92	36							
		Total	86	100	174	100	162	100	254	100								
d. Evaluating a point of view, decision, or information source	HOevaluate	1	Very little	11	13	30	17	17	11	43	17	2.5	2.5	-.04	2.6	-.12	2.5	-.01
		2	Some	36	42	54	31	58	36	86	34							
		3	Quite a bit	26	30	59	34	59	37	81	32							
		4	Very much	13	15	30	17	26	16	43	17							
		Total	86	100	173	100	160	100	253	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
														UMD Peers		Competitors		NSSE Carnegie	
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	6	19	11	13	8	25	10	2.8	2.7	.18	2.8	.03	2.7	.17	
		2	Some	27	31	49	28	45	27	84	33								
		3	Quite a bit	31	36	76	43	66	40	92	36								
		4	Very much	23	27	31	18	40	24	53	21								
		Total	86	100	175	100	164	100	254	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	1	7	4	4	2	14	5	3.1	3.0	.12	3.1	.06	2.9 *	.25	
		2	Some	14	16	32	18	33	20	67	26								
		3	Quite a bit	45	52	87	49	75	45	104	41								
		4	Very much	26	30	50	28	53	32	71	28								
		Total	86	100	176	100	165	100	256	100									
b. Taught course sessions in an organized way	ETorganize	1	Very little	2	2	8	5	3	2	16	6	3.0	3.0	.07	3.1	-.05	2.9	.18	
		2	Some	17	20	35	20	26	16	56	22								
		3	Quite a bit	42	49	83	47	90	55	121	47								
		4	Very much	25	29	49	28	46	28	63	25								
		Total	86	100	175	100	165	100	256	100									
c. Used examples or illustrations to explain difficult points	ETexample	1	Very little	4	5	4	2	2	1	14	5	3.2	3.1	.04	3.2	-.01	3.0	.16	
		2	Some	9	10	28	16	24	15	48	19								
		3	Quite a bit	41	48	82	47	81	49	108	42								
		4	Very much	32	37	61	35	58	35	86	34								
		Total	86	100	175	100	165	100	256	100									
d. Provided feedback on a draft or work in progress	ETdraftfb	1	Very little	9	10	29	17	22	13	40	16	2.6	2.5	.10	2.6	-.02	2.6	.01	
		2	Some	31	36	64	37	59	36	86	34								
		3	Quite a bit	35	41	52	30	50	30	76	30								
		4	Very much	11	13	29	17	33	20	52	20								
		Total	86	100	174	100	164	100	254	100									
e. Provided prompt and detailed feedback on tests or completed assignments	ETfeedback	1	Very little	6	7	16	9	17	10	34	13	2.8	2.7	.09	2.6	.21	2.6	.17	
		2	Some	19	22	58	33	62	38	82	32								
		3	Quite a bit	48	56	60	34	53	32	81	32								
		4	Very much	13	15	40	23	32	20	57	22								
		Total	86	100	174	100	164	100	254	100									

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD	UMD Peers		Competitors		NSSE Carnegie		UMD	Your seniors compared with						
												UMD Peers		Competitors		NSSE Carnegie		
Item wording or description	Variable name ⁱ	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	0	0	8	5	4	2	11	4	3.4	3.2	.20	3.3	.16	3.2 *	.26
		2	Sometimes	10	12	22	13	23	14	44	17							
		3	Often	34	40	69	39	65	39	93	36							
		4	Very often	42	49	76	43	73	44	107	42							
		Total	86	100	175	100	165	100	255	100								
b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	QRproblem	1	Never	11	13	27	15	14	8	43	17	2.8	2.7	.13	2.8	.03	2.6	.21
		2	Sometimes	23	27	52	30	51	31	80	31							
		3	Often	22	26	46	26	54	33	67	26							
		4	Very often	30	35	51	29	46	28	66	26							
		Total	86	100	176	100	165	100	256	100								
c. Evaluated what others have concluded from numerical information	QRevaluate	1	Never	6	7	18	10	17	10	35	14	2.9	2.7	.21	2.7	.20	2.6	.23
		2	Sometimes	25	29	61	35	56	34	84	33							
		3	Often	29	34	57	32	54	33	73	29							
		4	Very often	26	30	40	23	38	23	64	25							
		Total	86	100	176	100	165	100	256	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 (Recoded version of wrshort created by NSSE. Values are estimated number of papers, reports, etc.)	0	None	7	8	13	8	11	7	20	8	6.8	7.7	-.13	7.6	-.11	7.1	-.05
		1.5	1-2	14	17	36	21	31	20	59	24							
		4	3-5	24	29	47	28	39	25	64	26							
		8	6-10	22	27	28	16	35	22	49	20							
		13	11-15	7	8	16	9	21	13	25	10							
		18	16-20	5	6	10	6	6	4	8	3							
		23	More than 20	4	5	20	12	14	9	25	10							
		Total	83	100	170	100	157	100	250	100								
b. Between 6 and 10 pages	wrmednum (Recoded version of wrmed created by NSSE. Values are estimated number of papers, reports, etc.)	0	None	18	22	31	19	33	21	61	25	4.3	5.0	-.13	4.4	-.02	3.8	.09
		1.5	1-2	24	29	43	26	41	26	75	31							
		4	3-5	22	27	40	24	42	27	54	22							
		8	6-10	8	10	32	19	30	19	36	15							
		13	11-15	8	10	9	5	5	3	9	4							
		18	16-20	1	1	4	2	1	1	1	0							
		23	More than 20	2	2	7	4	6	4	8	3							
		Total	83	100	166	100	158	100	244	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
														UMD Peers		Competitors		NSSE Carnegie	
Item wording or description	Variable name ⁱ	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	21	24	48	29	57	36	96	39	3.2	3.6	-.08	2.7	.13	2.9	.06	
	(Recoded version of wrlong created by NSSE. Values are estimated number of papers, reports, etc.)	1.5	1-2	28	33	56	34	55	35	83	34								
		4	3-5	21	24	31	19	18	11	30	12								
		8	6-10	12	14	16	10	19	12	16	7								
		13	11-15	3	3	9	5	7	4	11	4								
		18	16-20	1	1	3	2	2	1	4	2								
		23	More than 20	0	0	4	2	0	0	6	2								
	Total		86	100	167	100	158	100	246	100									
Estimated number of assigned pages of student writing.	wrpages											101.6	111.3	-.09	99.2	.02	91.4	.10	
	(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	5	6	15	9	15	9	24	9	2.5	2.9 **	-.40	2.8 *	-.26	2.9 **	-.37	
		2	Sometimes	43	50	52	30	54	33	74	29								
		3	Often	25	29	40	23	48	29	61	24								
		4	Very often	13	15	68	39	47	29	96	38								
		Total	86	100	175	100	164	100	255	100									
b. People from an economic background other than your own	DDeconomic	1	Never	3	3	14	8	13	8	20	8	2.8	3.0	-.21	2.9	-.11	2.9	-.13	
		2	Sometimes	31	36	46	26	46	28	81	32								
		3	Often	35	41	46	26	55	34	58	23								
		4	Very often	17	20	68	39	50	30	94	37								
		Total	86	100	174	100	164	100	253	100									
c. People with religious beliefs other than your own	DDreligion	1	Never	3	3	16	9	16	10	23	9	2.9	2.9	-.04	2.8	.08	2.9	.01	
		2	Sometimes	28	33	49	28	45	28	77	30								
		3	Often	32	37	42	24	56	35	65	26								
		4	Very often	23	27	66	38	45	28	88	35								
		Total	86	100	173	100	162	100	253	100									
d. People with political views other than your own	DDpolitical	1	Never	4	5	17	10	14	9	20	8	2.8	2.9	-.04	2.9	-.09	2.9	-.12	
		2	Sometimes	28	33	52	30	39	24	71	28								
		3	Often	34	40	42	24	57	36	68	27								
		4	Very often	20	23	61	35	50	31	93	37								
		Total	86	100	172	100	160	100	252	100									

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD	UMD Peers		Competitors		NSSE Carnegie		UMD	Your seniors compared with						
												UMD Peers		Competitors		NSSE Carnegie		
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	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	7	8	13	7	6	4	9	4	2.6	2.8	-.15	3.0 **	-.43	2.9 *	-.32
		2	Sometimes	30	35	59	34	44	27	77	30							
		3	Often	37	43	58	33	60	36	100	39							
		4	Very often	12	14	44	25	55	33	69	27							
		Total	86	100	174	100	165	100	255	100								
b. Reviewed your notes after class	LSnotes	1	Never	9	10	5	3	10	6	13	5	2.5	2.9 ***	-.50	2.9 **	-.44	2.9 **	-.41
		2	Sometimes	36	42	55	32	51	31	84	33							
		3	Often	30	35	61	35	48	29	83	33							
		4	Very often	11	13	53	30	55	34	75	29							
		Total	86	100	174	100	164	100	255	100								
c. Summarized what you learned in class or from course materials	LSummary	1	Never	14	16	16	9	16	10	27	11	2.5	2.7 *	-.26	2.8 *	-.30	2.7	-.21
		2	Sometimes	30	35	61	35	54	33	92	36							
		3	Often	30	35	54	31	50	30	75	30							
		4	Very often	12	14	43	25	45	27	60	24							
		Total	86	100	174	100	165	100	254	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	1	1	0	0	2	1	5.8	5.6	.16	5.8	.02	5.4 *	.28
		2	0	0	4	2	3	2	11	4								
		3	2	2	8	5	5	3	12	5								
		4	7	8	14	8	8	5	25	10								
		5	24	28	44	25	44	27	69	27								
		6	27	31	55	32	55	34	71	28								
		7	Very much	26	30	47	27	49	30	64	25							
		Total	86	100	173	100	164	100	254	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	3	6	3	8	5	17	7	65%	55%	.21	48% **	.36	51% *	.28	
		Do not plan to do	5	6	17	10	28	17	39	15								
		Plan to do	22	26	56	32	50	30	68	27								
		Done or in progress	56	65	96	55	78	48	131	51								
		Total	86	100	175	100	164	100	255	100								
(Means indicate the percentage who responded "Done or in progress.")																		

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering			Frequency Distributions								Statistical Comparisons ^k							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		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
b. Hold a formal leadership role in a student organization or group	leader		Have not decided	4	5	18	10	16	10	32	13	53%	36% ** ▲	.35	35% ** ▲	.36	34% ** ▲	.39
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	28	33	77	45	76	47	114	45								
	Plan to do	8	9	16	9	14	9	21	8									
	Done or in progress	45	53	62	36	57	35	85	34									
	Total	85	100	173	100	163	100	252	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	6	7	18	10	19	12	36	14	22%	25%	-.07	26%	-.08	21%	.02
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	58	67	99	57	87	53	147	58								
	Plan to do	3	3	14	8	16	10	18	7									
	Done or in progress	19	22	44	25	42	26	54	21									
	Total	86	100	175	100	164	100	255	100									
d. Participate in a study abroad program	abroad		Have not decided	9	10	15	9	15	9	26	10	8%	8%	.00	9%	-.02	6%	.10
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	63	73	131	75	125	77	197	78								
	Plan to do	7	8	14	8	9	6	17	7									
	Done or in progress	7	8	14	8	14	9	14	6									
	Total	86	100	174	100	163	100	254	100									
e. Work with a faculty member on a research project	research		Have not decided	10	12	27	15	40	24	51	20	33%	24%	.19	21%	.25	26%	.15
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	39	45	67	38	61	37	92	36								
	Plan to do	9	10	39	22	28	17	46	18									
	Done or in progress	28	33	42	24	35	21	66	26									
	Total	86	100	175	100	164	100	255	100									
f. Complete a culminating senior experience (capstone course, senior project or thesis, comprehensive exam, portfolio, etc.)	capstone		Have not decided	5	6	5	3	5	3	15	6	60%	54%	.13	45% * ▲	.31	50%	.22
	(Means indicate the percentage who responded "Done or in progress.")	Do not plan to do	3	3	9	5	13	8	21	8								
	Plan to do	26	30	66	38	72	44	92	36									
	Done or in progress	52	60	94	54	74	45	126	50									
	Total	86	100	174	100	164	100	254	100									

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

servcourse	1	None	49	57	100	57	89	55	134	53	1.5	1.5	-.14	1.6	-.15	1.6	-.18
	2	Some	35	41	58	33	60	37	96	38							
	3	Most	2	2	13	7	12	7	18	7							
	4	All	0	0	4	2	2	1	4	2							
	Total		86	100	175	100	163	100	252	100							

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

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				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
		UMD Peers												Competitors		NSSE Carnegie			
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
13. Indicate the quality of your interactions with the following people at your institution.																			
a. Students	QIstudent	1	Poor	0	0	1	1	2	1	2	1	5.9	5.6	.20	5.7	.16	5.7	.16	
		2		1	1	2	1	2	1	4	2								
		3		2	2	7	4	3	2	10	4								
		4		5	6	14	8	12	7	20	8								
		5		23	27	46	26	40	24	62	24								
		6		22	26	59	34	52	32	76	30								
		7	Excellent	33	38	46	26	43	26	80	31								
		—	Not applicable	0	0	0	0	10	6	1	0								
		Total		86	100	175	100	164	100	255	100								
b. Academic advisors	QIadvisor	1	Poor	4	5	18	10	10	6	23	9	5.0	4.6	.22	4.9	.10	4.9	.07	
		2		7	8	8	5	9	6	8	3								
		3		8	9	23	13	16	10	24	9								
		4		10	12	25	14	22	13	35	14								
		5		15	17	32	18	35	21	45	18								
		6		15	17	32	18	35	21	51	20								
		7	Excellent	26	30	36	21	33	20	64	25								
		—	Not applicable	1	1	1	1	3	2	4	2								
		Total		86	100	175	100	163	100	254	100								
c. Faculty	QIfaculty	1	Poor	0	0	2	1	2	1	8	3	5.5	5.2	.23	5.2	.19	5.0 **	.29	
		2		1	1	8	5	4	2	13	5								
		3		5	6	12	7	13	8	27	11								
		4		12	14	27	15	24	15	34	13								
		5		24	28	49	28	39	24	56	22								
		6		22	26	42	24	52	32	60	24								
		7	Excellent	22	26	34	19	27	16	54	21								
		—	Not applicable	0	0	1	1	3	2	2	1								
		Total		86	100	175	100	164	100	254	100								

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Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

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				Frequency Distributions								Statistical Comparisons ^k							
														Your seniors compared with					
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
Item wording or description	Variable name ⁱ	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.)	Qlstaff	1	Poor	2	2	9	5	4	2	15	6	5.0	4.7	.18	4.9	.05	4.7	.22	
		2		2	2	7	4	5	3	15	6								
		3		9	10	11	6	10	6	19	7								
		4		9	10	31	18	25	15	31	12								
		5		21	24	35	20	34	21	46	18								
		6		19	22	25	14	29	18	40	16								
		7	Excellent	12	14	24	14	20	12	33	13								
		—	Not applicable	12	14	33	19	38	23	56	22								
	Total	86	100	175	100	165	100	255	100										
e. Other administrative staff and offices (registrar, financial aid, etc.)	Qladmin	1	Poor	0	0	12	7	6	4	15	6	5.1	4.6 *	.32	4.8	.19	4.8	.19	
		2		6	7	9	5	7	4	16	6								
		3		5	6	17	10	14	8	22	9								
		4		17	20	31	18	28	17	30	12								
		5		17	20	41	24	40	24	54	21								
		6		20	23	32	18	30	18	53	21								
		7	Excellent	18	21	22	13	24	15	42	16								
		—	Not applicable	3	3	10	6	16	10	23	9								
	Total	86	100	174	100	165	100	255	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	2	1	2	1	5	2	3.3	3.3	.05	3.2	.15	3.1	.22	
		2	Some	10	12	26	15	26	16	48	19								
		3	Quite a bit	40	47	71	41	74	45	111	43								
		4	Very much	36	42	76	43	62	38	92	36								
		Total	86	100	175	100	164	100	256	100									
b. Providing support to help students succeed academically	SEacademic	1	Very little	5	6	10	6	11	7	23	9	2.9	2.9	.07	2.8	.17	2.8	.16	
		2	Some	17	20	43	25	45	28	71	28								
		3	Quite a bit	45	52	85	49	78	48	104	41								
		4	Very much	19	22	37	21	29	18	58	23								
		Total	86	100	175	100	163	100	256	100									
c. Using learning support services (tutoring services, writing center, etc.)	SElearnsup	1	Very little	14	16	28	16	19	12	36	14	2.5	2.5	.07	2.5	.01	2.6	-.04	
		2	Some	28	33	56	32	60	37	78	31								
		3	Quite a bit	27	31	69	40	61	37	96	38								
		4	Very much	17	20	21	12	23	14	45	18								
		Total	86	100	174	100	163	100	255	100									

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				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
														UMD Peers		Competitors		NSSE Carnegie	
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. Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)	SEdiverse	1	Very little	25	29	32	18	28	17	51	20	2.1	2.4 **	-0.38	2.4 *	-0.33	2.4 **	-0.37	
		2	Some	35	41	65	37	66	41	88	34								
		3	Quite a bit	21	24	50	29	49	30	73	29								
		4	Very much	5	6	28	16	19	12	44	17								
		Total	86	100	175	100	162	100	256	100									
e. Providing opportunities to be involved socially	SEsocial	1	Very little	5	6	20	11	22	14	26	10	2.6	2.7	-0.03	2.5	.09	2.7	-0.06	
		2	Some	33	38	53	30	50	31	83	33								
		3	Quite a bit	37	43	69	39	69	43	93	36								
		4	Very much	11	13	33	19	21	13	53	21								
		Total	86	100	175	100	162	100	255	100									
f. Providing support for your overall well-being (recreation, health care, counseling, etc.)	SEwellness	1	Very little	16	19	23	13	19	12	35	14	2.5	2.5	-0.03	2.6	-0.12	2.5	-0.08	
		2	Some	23	27	70	40	57	35	95	37								
		3	Quite a bit	38	44	54	31	59	37	77	30								
		4	Very much	9	10	27	16	26	16	48	19								
		Total	86	100	174	100	161	100	255	100									
g. Helping you manage your non-academic responsibilities (work, family, etc.)	SEnonacad	1	Very little	36	42	71	41	52	32	107	42	1.8	1.9	-0.12	2.0	-0.21	1.9	-0.08	
		2	Some	34	40	57	33	65	40	84	33								
		3	Quite a bit	11	13	34	19	37	23	48	19								
		4	Very much	5	6	13	7	8	5	17	7								
		Total	86	100	175	100	162	100	256	100									
h. Attending campus activities and events (performing arts, athletic events, etc.)	SEactivities	1	Very little	16	19	38	22	27	17	51	20	2.3	2.3	-0.08	2.4	-0.19	2.4	-0.12	
		2	Some	35	41	59	34	53	33	91	36								
		3	Quite a bit	30	35	57	33	63	39	78	30								
		4	Very much	5	6	21	12	18	11	36	14								
		Total	86	100	175	100	161	100	256	100									
i. Attending events that address important social, economic, or political issues	SEevents	1	Very little	23	27	48	28	33	20	72	28	2.0	2.2	-0.15	2.1	-0.15	2.1	-0.12	
		2	Some	41	48	66	38	80	49	97	38								
		3	Quite a bit	17	20	42	24	42	26	64	25								
		4	Very much	4	5	17	10	7	4	20	8								
		Total	85	100	173	100	162	100	253	100									

Your seniors compared with

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University of Minnesota Duluth

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				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
														UMD Peers		Competitors		NSSE Carnegie	
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. Working for pay off campus	tmworkoffhrs	0	0 hrs	47	55	69	40	61	38	86	34	7.8	12.0 ** ▼	-.36	14.4 *** ▼	-.52	14.8 *** ▼	-	
	(Recoded version of tmworkoff created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	5	6	5	3	2	1	5	2								
	8	6-10 hrs	5	6	15	9	9	6	19	8									
	13	11-15 hrs	5	6	12	7	16	10	18	7									
	18	16-20 hrs	9	10	30	17	20	12	33	13									
	23	21-25 hrs	7	8	11	6	6	4	21	8									
	28	26-30 hrs	7	8	6	3	3	2	16	6									
	33	More than 30 hrs	1	1	25	14	44	27	55	22									
	Total		86	100	173	100	161	100	253	100									
Estimated number of hours working for pay	tmworkhrs											12.1 ▼	15.3 * ▼	-.27	17.4 ** ▼	-.43	18.1 *** ▼	-	
(Continuous variable created by NSSE)																			
e. Doing community service or volunteer work	tmservicehrs	0	0 hrs	61	72	102	59	99	61	153	61	1.4	2.4	-.23	2.3	-.21	2.5 * ▼	-	
	(Recoded version of tmservice created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	20	24	54	31	45	28	73	29								
	8	6-10 hrs	2	2	9	5	8	5	9	4									
	13	11-15 hrs	1	1	2	1	1	1	5	2									
	18	16-20 hrs	0	0	4	2	6	4	5	2									
	23	21-25 hrs	0	0	0	0	1	1	3	1									
	28	26-30 hrs	1	1	1	1	1	1	2	1									
	33	More than 30 hrs	0	0	2	1	0	0	2	1									
	Total		85	100	174	100	161	100	252	100									
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs	0	0 hrs	2	2	6	3	10	6	10	4	11.8	10.3	.20	10.1	.23	10.2	.21	
	(Recoded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	13	15	57	32	47	29	79	31								
	8	6-10 hrs	29	34	43	24	40	25	68	27									
	13	11-15 hrs	18	21	24	14	26	16	36	14									
	18	16-20 hrs	17	20	29	16	24	15	33	13									
	23	21-25 hrs	1	1	8	5	11	7	14	6									
	28	26-30 hrs	3	3	4	2	1	1	7	3									
	33	More than 30 hrs	3	3	5	3	4	2	7	3									
	Total		86	100	176	100	163	100	254	100									

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		Your seniors compared with						
												UMD	UMD Peers	Competitors	NSSE Carnegie			
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	76	89	118	68	100	63	150	60	.8	3.9 *** ▼	-.43	7.7 *** ▼	-.68	6.1 *** ▼	-.57
	(Recoded version of tmcare created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	6	7	26	15	9	6	31	12							
	8	6-10 hrs	1	1	5	3	4	3	16	6								
	13	11-15 hrs	1	1	4	2	4	3	6	2								
	18	16-20 hrs	0	0	11	6	12	8	17	7								
	23	21-25 hrs	0	0	1	1	3	2	6	2								
	28	26-30 hrs	0	0	2	1	6	4	6	2								
	33	More than 30 hrs	1	1	7	4	20	13	19	8								
	Total		85	100	174	100	158	100	251	100								
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs	0	0 hrs	6	7	12	7	51	31	15	6	3.8	5.6 *** ▼	-.39	3.8	.01	5.7 *** ▼	-.38
	(Recoded version of tmcommute created by NSSE. Values are estimated number of hours per week.)	3	1-5 hrs	67	78	105	60	84	52	155	61							
	8	6-10 hrs	10	12	37	21	13	8	51	20								
	13	11-15 hrs	2	2	11	6	7	4	20	8								
	18	16-20 hrs	1	1	7	4	4	2	5	2								
	23	21-25 hrs	0	0	2	1	1	1	4	2								
	28	26-30 hrs	0	0	0	0	0	0	1	0								
	33	More than 30 hrs	0	0	2	1	2	1	3	1								
	Total		86	100	176	100	162	100	254	100								
16. Of the time you spend preparing for class in a typical 7-day week, about how much is on assigned reading?																		
reading	(Revised for 2014. Comparison data are limited to NSSE 2014 participating institutions.)	1	Very little	36	42	61	35	50	31	86	34	1.8	2.0	-.24	2.2 ** ▼	-.38	2.1 * ▼	-.31
		2	Some	34	40	72	41	61	38	97	38							
		3	About half	12	14	25	14	33	20	43	17							
		4	Most	3	4	11	6	10	6	17	7							
		5	Almost all	0	0	6	3	8	5	12	5							
		Total	85	100	175	100	162	100	255	100								
tmreadinghrs												4.7	5.6	-.18	5.8	-.23	5.5	-.15
(Continuous variable created by NSSE. Calculated as a proportion of tmprphrs based on reading, where Very little=.10; Some=.25; About half=.50; Most=.75; Almost all=.90)																		

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD	Your seniors compared with					
	UMD Peers		Competitors										NSSE Carnegie					
Item wording or description	Variable name ⁱ	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ
	tmreadinghrscol	1	0 hrs	0	0	3	2	1	1	3	1							
	(Collapsed version of tmreadinghrs created by NSSE.)	2	More than zero, up to 5 hrs	52	61	99	57	88	55	154	61							
		3	More than 5, up to 10 hrs	26	31	53	30	48	30	64	25							
		4	More than 10, up to 15 hrs	5	6	6	3	12	7	10	4							
		5	More than 15, up to 20 hrs	2	2	8	5	9	6	11	4							
		6	More than 20, up to 25 hrs	0	0	4	2	2	1	8	3							
		7	More than 25 hrs	0	0	2	1	1	1	4	2							
			Total		85	100	175	100	161	100	254	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	3	3	22	13	15	9	35	14	2.8	2.8	.04	2.8	-.06	2.7	.07
		2	Some	29	34	49	28	46	28	66	26							
		3	Quite a bit	37	43	56	32	52	32	88	35							
		4	Very much	17	20	49	28	51	31	66	26							
		Total		86	100	176	100	164	100	255	100							
b. Speaking clearly and effectively	pgspeak	1	Very little	6	7	23	13	23	14	38	15	2.7	2.8	-.16	2.8	-.13	2.7	-.06
		2	Some	33	38	41	23	35	21	63	25							
		3	Quite a bit	32	37	60	34	60	37	86	34							
		4	Very much	15	17	52	30	45	28	66	26							
		Total		86	100	176	100	163	100	253	100							
c. Thinking critically and analytically	pgthink	1	Very little	1	1	6	3	2	1	7	3	3.5	3.3 *	.25	3.3 *	.26	3.2 **	.36
		2	Some	5	6	26	15	26	16	44	17							
		3	Quite a bit	28	33	48	27	52	32	85	33							
		4	Very much	52	60	95	54	85	52	118	46							
		Total		86	100	175	100	165	100	254	100							
d. Analyzing numerical and statistical information	pganalyze	1	Very little	0	0	4	2	4	2	10	4	3.6	3.4	.18	3.3 *	.32	3.3 **	.34
		2	Some	8	9	16	9	21	13	28	11							
		3	Quite a bit	21	24	55	31	56	34	90	35							
		4	Very much	57	66	101	57	84	51	126	50							
		Total		86	100	176	100	165	100	254	100							

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k						
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD	Your seniors compared with					
													UMD Peers		Competitors		NSSE Carnegie	
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	1	1	19	11	12	7	29	11	3.1	3.0	.09	3.1	-.02	2.9	.18
		2	Some	24	28	28	16	30	18	56	22							
		3	Quite a bit	28	33	64	36	52	32	79	31							
		4	Very much	33	38	65	37	71	43	91	36							
		Total	86	100	176	100	165	100	255	100								
f. Working effectively with others	pgothers	1	Very little	5	6	9	5	14	9	14	5	3.1	3.1	-.04	3.0	.07	3.0	.08
		2	Some	16	19	37	21	35	21	66	26							
		3	Quite a bit	34	40	59	34	54	33	85	33							
		4	Very much	31	36	71	40	61	37	90	35							
		Total	86	100	176	100	164	100	255	100								
g. Developing or clarifying a personal code of values and ethics	pgvalues	1	Very little	11	13	34	19	23	14	51	20	2.6	2.7	-.08	2.7	-.10	2.6	-.01
		2	Some	32	37	37	21	50	30	71	28							
		3	Quite a bit	26	30	59	34	49	30	68	27							
		4	Very much	17	20	45	26	42	26	65	25							
		Total	86	100	175	100	164	100	255	100								
h. Understanding people of other backgrounds (economic, racial/ethnic, political, religious, nationality, etc.)	pgdiverse	1	Very little	24	28	32	18	31	19	53	21	2.1	2.6 *** ▼	-.47	2.4 * ▼	-.27	2.5 ** ▼	-.39
		2	Some	37	44	49	28	65	40	71	28							
		3	Quite a bit	14	16	52	30	39	24	75	30							
		4	Very much	10	12	42	24	27	17	54	21							
		Total	85	100	175	100	162	100	253	100								
i. Solving complex real-world problems	pgprobsolve	1	Very little	2	2	13	7	3	2	27	11	3.2	3.1	.11	3.2	-.02	2.9 * ▲	.23
		2	Some	17	20	36	20	36	22	57	22							
		3	Quite a bit	33	38	56	32	57	35	78	31							
		4	Very much	34	40	71	40	69	42	93	36							
		Total	86	100	176	100	165	100	255	100								
j. Being an informed and active citizen	pgcitizen	1	Very little	15	17	44	25	33	20	69	27	2.3	2.3	-.10	2.4	-.13	2.3	-.05
		2	Some	41	48	55	31	64	39	82	32							
		3	Quite a bit	23	27	47	27	39	24	58	23							
		4	Very much	7	8	29	17	28	17	45	18							
		Total	86	100	175	100	164	100	254	100								

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

Frequencies and Statistical Comparisons: Engineering

University of Minnesota Duluth

Seniors^a in Engineering

Seniors ^a in Engineering				Frequency Distributions								Statistical Comparisons ^k							
				UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		Your seniors compared with					
														UMD Peers		Competitors		NSSE Carnegie	
Item wording or description	Variable name ^l	Values ^m	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size ⁿ	Mean	Effect size ⁿ	Mean	Effect size ⁿ	
18. How would you evaluate your entire educational experience at this institution?																			
	evalexp	1	Poor	0	0	5	3	3	2	13	5	3.2	3.1	.09	3.2	-.01	2.9 *	.28	
		2	Fair	11	13	28	16	22	13	55	22								
		3	Good	51	59	90	51	86	52	123	48								
		4	Excellent	24	28	53	30	54	33	64	25								
		Total		86	100	176	100	165	100	255	100								
19. If you could start over again, would you go to the <i>same institution</i> you are now attending?																			
	sameinst	1	Definitely no	1	1	13	7	2	1	21	8	3.2	3.0	.15	3.2	-.05	2.9 *	.25	
		2	Probably no	15	17	26	15	24	15	48	19								
		3	Probably yes	39	45	79	45	78	47	110	43								
		4	Definitely yes	31	36	58	33	61	37	77	30								
		Total		86	100	176	100	165	100	256	100								

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

Respondent Profile: Engineering

University of Minnesota Duluth

Engineering

First-Year Students^a

Seniors^a

Item wording or description	Variable name	Response options	First-Year Students ^a								Seniors ^a							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
20a. How many majors do you plan to complete? (Do not count minors.)	MAJnum	One	88	92	106	82	51	88	178	88	83	97	160	91	136	82	226	88
		More than one	8	8	24	18	7	12	25	12	3	3	16	9	29	18	30	12
		Total	96	100	130	100	58	100	203	100	86	100	176	100	165	100	256	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 (Recoded from MAJfirst.)	Arts & Humanities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Biological Sci., Agriculture, & Natural Resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Physical Sci., Mathematics, & Computer Science	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		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	96	100	130	100	58	100	203	100	86	100	176	100	165	100	256	100
		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	96	100	130	100	58	100	203	100	86	100	176	100	165	100	256	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 (Recoded from MAJsecond.)	Arts & Humanities	1	13	1	4	1	20	0	0	1	33	2	13	5	17	1	3
		Biological Sci., Agriculture, & Natural Resources	1	13	1	4	1	20	3	12	2	67	2	13	2	7	2	7
		Physical Sci., Mathematics, & Computer Science	1	13	5	21	2	40	5	20	0	0	4	27	5	17	7	24
		Social Sciences	0	0	0	0	1	20	1	4	0	0	0	0	0	0	1	3
		Business	1	13	5	21	0	0	5	20	0	0	1	7	0	0	1	3
		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	4	50	8	33	0	0	7	28	0	0	5	33	11	38	15	52
		Health Professions	0	0	0	0	0	0	1	4	0	0	0	0	1	3	0	0
		Social Service Professions	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
		All Other	0	0	3	13	0	0	2	8	0	0	1	7	5	17	1	3
		Undecided, Undeclared	0	0	1	4	0	0	1	4	0	0	0	0	0	0	0	0
		Total	8	100	24	100	5	100	25	100	3	100	15	100	29	100	29	100

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

Respondent Profile: Engineering

University of Minnesota Duluth

Engineering

First-Year Students^a

Seniors^a

Item wording or description	Variable name	Response options	First-Year Students ^a								Seniors ^a							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
			Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
21. What is your class level?	class	Freshman/First-year	90	94	116	90	54	93	174	86	0	0	1	1	1	1	0	0
		Sophomore	4	4	9	7	4	7	25	12	1	1	4	2	7	4	6	2
		Junior	2	2	4	3	0	0	3	1	15	17	35	20	49	30	43	17
		Senior	0	0	0	0	0	0	0	0	70	81	136	77	106	64	206	80
		Unclassified	0	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0
		Total	96	100	129	100	58	100	202	100	86	100	176	100	165	100	256	100
22. Thinking about this current academic term, are you a full-time student?	fulltime	No	0	0	5	4	2	3	12	6	6	7	24	14	43	26	58	23
		Yes	96	100	123	96	56	97	188	94	77	93	152	86	121	74	198	77
		Total	96	100	128	100	58	100	200	100	83	100	176	100	164	100	256	100
23a. How many courses are you taking for credit this current academic term?	coursenum	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	4	2
		1	0	0	0	0	0	0	1	0	1	1	3	2	11	7	8	3
		2	0	0	2	2	0	0	5	2	0	0	5	3	15	9	22	9
		3	3	3	2	2	1	2	7	3	4	5	9	5	23	14	22	9
		4	24	25	36	28	12	21	75	37	27	32	38	22	30	18	63	25
		5	46	48	43	33	20	34	74	37	39	46	57	32	38	23	66	26
		6	13	14	30	23	17	29	25	12	9	11	34	19	23	14	30	12
		7 or more	10	10	16	12	8	14	14	7	5	6	28	16	24	15	41	16
		Total	96	100	129	100	58	100	201	100	85	100	176	100	164	100	256	100
b. Of these, how many are entirely online?	onlinenum	0	93	98	115	89	48	83	166	82	77	91	158	90	99	61	204	81
		1	1	1	11	9	9	16	29	14	5	6	12	7	28	17	39	15
		2	0	0	1	1	0	0	5	2	3	4	2	1	11	7	6	2
		3	0	0	1	1	1	2	2	1	0	0	1	1	16	10	3	1
		4	1	1	1	1	0	0	0	0	0	0	0	0	5	3	0	0
		5	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0
		6	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0
		7 or more	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0
		Total	95	100	129	100	58	100	202	100	85	100	175	100	163	100	253	100
Collapsed recode of courses taken online (Based on responses to coursenum and onlinenum)	onlinecrscol	No courses taken online	93	98	115	89	48	83	165	82	77	91	158	90	99	61	204	81
		Some courses taken online	2	2	11	9	9	16	34	17	8	9	14	8	21	13	48	19
		All courses taken online	0	0	3	2	1	2	2	1	0	0	3	2	43	26	1	0
		Total	95	100	129	100	58	100	201	100	85	100	175	100	163	100	253	100

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

Respondent Profile: Engineering

University of Minnesota Duluth

Engineering

Engineering			First-Year Students ^a								Seniors ^a							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
Item wording or description	Variable name	Response options	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	1	1	4	3	1	2	7	3	0	0	0	0	2	1	0	0
		C	4	4	4	3	1	2	4	2	3	4	5	3	8	5	9	4
		C+	2	2	7	5	5	9	9	4	2	2	11	6	6	4	16	6
		B-	16	17	8	6	3	5	9	4	5	6	22	13	11	7	25	10
		B	21	22	26	20	16	28	48	24	25	29	40	23	44	27	61	24
		B+	22	23	30	23	9	16	32	16	15	18	38	22	34	21	51	20
		A-	20	21	21	16	6	10	34	17	22	26	25	14	19	12	38	15
		A	10	10	29	22	17	29	59	29	13	15	35	20	41	25	55	22
Total		96	100	129	100	58	100	202	100	85	100	176	100	165	100	255	100	
25. Did you begin college at this institution or elsewhere?	begincol	Started here	86	91	112	88	49	84	180	90	47	56	65	37	70	42	113	44
		Started elsewhere	9	9	16	13	9	16	21	10	37	44	110	63	95	58	142	56
		Total	95	100	128	100	58	100	201	100	84	100	175	100	165	100	255	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	2	2	2	2	1	2	10	5	5	6	18	10	24	15	36	14
	attend_com	Community or junior college	5	5	11	9	6	11	14	7	24	28	91	52	75	45	109	43
	attend_col	4-year college or university other than this one	8	8	10	8	5	9	16	8	17	20	59	34	65	39	84	33
	attend_none	None	75	79	101	80	43	75	163	81	45	53	50	29	58	35	78	31
	attend_other	Other	7	7	4	3	3	5	5	2	3	4	6	3	7	4	14	6
27. What is the highest level of education you ever expect to complete?	edaspire	Some college but less than a bachelor's degree	5	5	10	8	6	10	14	7	1	1	11	6	16	10	16	6
		Bachelor's degree (B.A., B.S., etc.)	50	53	52	40	28	48	96	48	39	46	72	41	71	43	104	41
		Master's degree (M.A., M.S., etc.)	33	35	52	40	17	29	68	34	35	42	80	45	64	39	106	42
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	6	6	15	12	7	12	22	11	9	11	13	7	14	8	28	11
		Total	94	100	129	100	58	100	200	100	84	100	176	100	165	100	254	100

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

Respondent Profile: Engineering

University of Minnesota Duluth

Engineering

			First-Year Students ^a								Seniors ^a							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
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	2	2	4	3	1	2	2	1	0	0	8	5	3	2	9	4
		High school diploma or G.E.D.	3	3	27	21	8	14	39	19	11	13	18	10	25	15	46	18
		Attended college, but did not complete degree	6	6	16	12	7	12	32	16	6	7	18	10	16	10	29	11
		Associate's degree (A.A., A.S., etc.)	13	14	15	12	8	14	31	15	9	11	30	17	39	24	38	15
		Bachelor's degree (B.A., B.S., etc.)	45	47	29	22	18	32	56	28	41	49	68	39	50	30	85	33
		Master's degree (M.A., M.S., etc.)	22	23	32	25	12	21	38	19	13	15	31	18	18	11	40	16
		Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	4	4	6	5	3	5	3	1	4	5	3	2	14	8	7	3
		Total	95	100	129	100	57	100	201	100	84	100	176	100	165	100	254	100
First-generation status (No parent holds a bachelor's degree)	firstgen	Not first-generation	71	75	67	52	33	58	97	48	58	69	102	58	82	50	132	52
	(Recoded from parented)	First-generation	24	25	62	48	24	42	104	52	26	31	74	42	83	50	122	48
		Total	95	100	129	100	57	100	201	100	84	100	176	100	165	100	254	100
29. What is your gender identity?	genderid	Man	77	81	89	69	37	64	145	72	60	71	147	84	125	76	212	84
		Woman	17	18	34	26	20	34	54	27	20	24	24	14	36	22	31	12
		Another gender identity	0	0	4	3	0	0	1	0	1	1	0	0	1	1	1	0
		I prefer not to respond	1	1	2	2	1	2	1	0	3	4	5	3	3	2	8	3
		Total	95	100	129	100	58	100	201	100	84	100	176	100	165	100	252	100
30. Enter your year of birth (e.g., 1994):	agecat	19 or younger	92	99	109	86	52	90	165	83	0	0	0	0	3	2	0	0
	(Recoded from the information entered in birthyear)	20-23	1	1	10	8	3	5	20	10	63	74	107	61	85	52	122	49
		24-29	0	0	3	2	2	3	5	3	17	20	35	20	34	21	68	27
		30-39	0	0	4	3	1	2	6	3	5	6	19	11	29	18	39	16
		40-55	0	0	1	1	0	0	3	2	0	0	13	7	14	8	19	8
		Over 55	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	1
		Total	93	100	127	100	58	100	199	100	85	100	175	100	165	100	250	100
31a. Are you an international student?	internat	No	93	100	115	90	53	91	184	92	85	100	163	93	156	95	231	91
		Yes	0	0	13	10	5	9	15	8	0	0	13	7	8	5	22	9
		Total	93	100	128	100	58	100	199	100	85	100	176	100	164	100	253	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	Africa Sub-Saharan	0	0	1	9	1	20	2	14	0	0	1	8	2	29	3	15
	(Recoded from country.)	Asia	0	0	4	36	1	20	5	36	0	0	1	8	2	29	3	15
		Canada	0	0	0	0	1	20	0	0	0	0	0	0	1	14	0	0
		Europe	0	0	1	9	0	0	1	7	0	0	7	58	2	29	7	35
		Latin America and Caribbean	0	0	1	9	1	20	1	7	0	0	0	0	0	0	0	0
		Middle East and North Africa	0	0	4	36	1	20	5	36	0	0	3	25	0	0	7	35
		Oceania	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Unknown region/uncoded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	0	0	11	100	5	100	14	100	0	0	12	100	7	100	20	100

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Respondent Profile: Engineering

University of Minnesota Duluth

Engineering

First-Year Students^a

Seniors^a

			First-Year Students ^a								Seniors ^a							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
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	1	1	6	5	1	2	3	1	1	1	1	1	0	0	0	0
	re_asian	Asian	3	3	20	16	5	9	17	8	2	2	10	6	10	6	17	7
	re_black	Black or African American	4	4	8	6	2	3	13	6	0	0	7	4	8	5	8	3
	re_latino	Hispanic or Latino	5	5	10	8	3	5	4	2	2	2	5	3	6	4	7	3
	re_pacific	Native Hawaiian or Other Pacific Islander	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
	re_white	White	82	86	94	73	48	83	163	81	74	87	142	81	137	83	206	81
	re_other	Other	0	0	7	5	1	2	8	4	1	1	4	2	2	1	8	3
	re_pnr	I prefer not to respond	3	3	4	3	1	2	7	3	6	7	9	5	6	4	14	6
	Racial or ethnic identification	re_all	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0
		(Recoded from re_amind through re_pnr where each student is represented only once)	3	3	11	9	3	5	11	5	2	2	10	6	9	5	16	6
33. Are you a member of a social fraternity or sorority?	greek	No	92	97	118	93	53	93	190	95	80	94	166	95	155	95	235	93
		Yes	3	3	9	7	4	7	11	5	5	6	9	5	9	5	19	7
		Total	95	100	127	100	57	100	201	100	85	100	175	100	164	100	254	100
	living	Dormitory or other campus housing (not fraternity or sorority house)	80	84	75	60	40	70	70	35	4	5	9	5	16	10	17	7
		Fraternity or sorority house	0	0	1	1	0	0	1	1	2	2	0	0	3	2	4	2
		Residence (house, apartment, etc.) within walking distance to the institution	8	8	7	6	4	7	13	7	28	33	54	31	50	30	54	21
		Residence (house, apartment, etc.) farther than walking distance to the institution	5	5	39	31	12	21	104	52	49	58	109	62	82	50	170	67
		None of the above	2	2	4	3	1	2	12	6	2	2	4	2	13	8	8	3
		Total	95	100	126	100	57	100	200	100	85	100	176	100	164	100	253	100
	athlete	No	85	89	122	95	55	95	182	91	81	96	171	99	160	97	247	98
34. Which of the following best describes where you are living while attending college?		Yes	10	11	6	5	3	5	17	9	3	4	2	1	5	3	6	2
		Total	95	100	128	100	58	100	199	100	84	100	173	100	165	100	253	100
35. Are you a student-athlete on a team sponsored by your institution's athletics department?																		

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

Respondent Profile: Engineering

University of Minnesota Duluth

Engineering

First-Year Students^a

Seniors^a

Item wording or description	Variable name	Response options	First-Year Students ^a								Seniors ^a							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
			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	93	99	124	97	58	100	192	96	80	95	159	91	137	83	226	90
		Yes	1	1	4	3	0	0	9	4	4	5	16	9	28	17	25	10
		Total	94	100	128	100	58	100	201	100	84	100	175	100	165	100	251	100
37a. Have you been diagnosed with any disability or impairment?	disability	No	83	87	107	84	53	91	180	89	73	86	153	87	146	88	213	85
		Yes	10	11	14	11	5	9	14	7	7	8	14	8	14	8	28	11
		I prefer not to respond	2	2	7	5	0	0	8	4	5	6	8	5	5	3	11	4
		Total	95	100	128	100	58	100	202	100	85	100	175	100	165	100	252	100
b. [If answered "yes"] Which of the following has been diagnosed? (Select all that apply.)	dis_sense	A sensory impairment (vision or hearing)	1	10	0	0	1	20	2	15	0	0	4	29	1	7	7	26
	dis_mobility	A mobility impairment	0	0	2	14	1	20	1	8	0	0	1	7	3	21	3	11
	dis_learning	A learning disability (e.g., ADHD, dyslexia)	7	70	11	79	2	40	8	62	4	57	7	50	6	43	11	41
	dis_mental	A mental health disorder	3	30	2	14	2	40	3	23	3	43	3	21	3	21	4	15
	dis_other	A disability or impairment not listed above	0	0	2	14	1	20	2	15	1	14	5	36	3	21	9	33
Disability or impairment	disability_all	A sensory impairment	0	0	0	0	1	2	1	0	0	0	1	1	0	0	3	1
		A mobility impairment	0	0	0	0	0	0	0	0	0	0	1	1	3	2	3	1
	(Recoded from disability and dis_sense through dis_other where each student is represented only once)	A learning disability	6	6	9	7	0	0	5	2	3	4	4	2	6	4	8	3
		A mental health disorder	3	3	1	1	1	2	2	1	2	2	1	1	2	1	2	1
		A disability or impairment not listed	0	0	1	1	1	2	2	1	1	1	3	2	2	1	6	2
		More than one disability or impairment	1	1	3	2	2	3	3	1	1	1	4	2	1	1	5	2
		No disability or impairment	83	87	107	84	53	91	180	90	73	86	153	87	146	88	213	85
		Prefer not to respond	2	2	7	5	0	0	8	4	5	6	8	5	5	3	11	4
		Total	95	100	128	100	58	100	201	100	85	100	175	100	165	100	251	100
38. Which of the following best describes your sexual orientation? (Question administered per institution request)	sexorient14	Heterosexual	83	87	88	81	15	83	112	91	76	89	129	88	53	90	125	88
		Gay	1	1	2	2	1	6	2	2	0	0	1	1	0	0	0	0
		Lesbian	1	1	1	1	0	0	0	0	2	2	0	0	0	0	1	1
		Bisexual	0	0	1	1	0	0	0	0	1	1	3	2	1	2	2	1
		Another sexual orientation	3	3	7	6	2	11	3	2	1	1	1	1	1	2	1	1
		Questioning or unsure	1	1	2	2	0	0	0	0	2	2	2	1	1	2	1	1
		I prefer not to respond	6	6	8	7	0	0	6	5	3	4	11	7	3	5	12	8
		Total	95	100	109	100	18	100	123	100	85	100	147	100	59	100	142	100

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

Respondent Profile: Engineering

University of Minnesota Duluth

Engineering

First-Year Students^a

Seniors^a

Item wording or description	Variable name	Response options	First-Year Students ^a								Seniors ^a							
			UMD		UMD Peers		Competitors		NSSE Carnegie		UMD		UMD Peers		Competitors		NSSE Carnegie	
			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	18	19	34	26	20	34	53	26	20	23	23	13	35	21	32	13
		Male	78	81	96	74	38	66	150	74	66	77	153	87	130	79	224	88
		Total	96	100	130	100	58	100	203	100	86	100	176	100	165	100	256	100
Institution-reported race or ethnicity	IRrace	American Indian or Alaska Native	0	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
		Asian	3	3	4	3	2	3	7	4	2	2	6	3	5	3	12	5
		Black or African American	4	4	5	4	1	2	10	5	0	0	6	3	6	4	5	2
		Hispanic or Latino	5	5	11	9	3	5	5	3	1	1	6	3	6	4	7	3
		Native Hawaiian/Other Pac. Islander	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		White	84	88	80	65	46	79	157	79	81	94	132	75	135	82	192	76
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Foreign or nonresident alien	0	0	14	11	5	9	15	8	0	0	12	7	7	4	22	9
		Two or more races/ethnicities	0	0	9	7	1	2	3	2	0	0	3	2	1	1	5	2
		Unknown	0	0	1	1	0	0	1	1	1	1	9	5	5	3	8	3
		Total	96	100	124	100	58	100	199	100	86	100	175	100	165	100	251	100
Institution-reported class level	IRclass	Freshman/First-Year	96	100	130	100	58	100	203	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	86	100	176	100	165	100	256	100
		Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Total	96	100	130	100	58	100	203	100	86	100	176	100	165	100	256	100
Institution-reported first-time first-year (FTFY) status	IRftfy	No	1	1	16	12	5	9	36	18	86	100	176	100	165	100	256	100
		Yes	95	99	114	88	53	91	167	82	0	0	0	0	0	0	0	0
		Total	96	100	130	100	58	100	203	100	86	100	176	100	165	100	256	100
Institution-reported enrollment status	IRenrollment	Not full-time	1	1	3	2	2	3	10	5	6	7	20	11	48	29	51	20
		Full-time	95	99	127	98	56	97	193	95	80	93	156	89	117	71	205	80
		Total	96	100	130	100	58	100	203	100	86	100	176	100	165	100	256	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 $\pm 1.96 \times \text{SEM}$.
- 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.