University of North Dakota NSSE 2019 Major Field Report, Part II Comparisons to Other Institutions Aero and 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 'Aero and Engineering' includes the following majors: Aero-, astronautical engineering; Astronomy; Atmospheric science (including meteorology); Bioengineering; Biomedical engineering; Chemical engineering; Civil engineering; Computer engineering and technology; Earth science (including geology); Electrical or electronic engineering; Engineering (general); Industrial engineering; Materials engineering; Mechanical engineering; Other engineering; Petroleum engineering; Software 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.

IPEDS: 200280



NSSE 2019 Major Field Report, Part II

About This Report

About Your Major Field Report, Part II

NSSE data serve to identify institutional strengths and weaknesses in reference to selected comparison institutions, yet institutionlevel 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: Aero and Engineering.

NSSE results included in MFR, Part II

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

Related-Major Groups

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

Sample

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

Class

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

Technical Requirements

Frequencies will be reported for related-major groups that have at least 5 respondents, but NSSE requires a group to have at least 20 respondents for statistical comparisons (e.g., means and t-tests). Comparison groups must contain at least 20 respondents in the major category, or they remain blank. Although 20 is a minimum requirement for all other statistics (Engagement Indicators, means, etc.), keep in mind that any statistical result requires a sufficient number of respondents per group to produce a reliable estimate. Due to the disaggregation of results by student-reported major, *Major Field Report* results are unweighted.

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

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



Overview of Engagement Indicators: Aero and Engineering University of North Dakota

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.
- \triangle 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.
- **Vour students' average** was significantly lower (p<.05) with an effect size at least .3 in magnitude.

		First-Year S	students in Aero and	Engineering	Senio	ors in Aero and Engine	eering
		Your first-year students compared with	Your first-year students compared with	Your first-year students compared with	Your seniors compared with	Your seniors compared with	Your seniors compared with
Theme	Engagement Indicator	Plains Public	Carnegie Class	One UND	Plains Public	Carnegie Class	One UND
	Higher-Order Learning						
Academic	Reflective & Integrative Learning						
Challenge	Learning Strategies						
	Quantitative Reasoning						
Learning with	Collaborative Learning						
Peers	Discussions with Diverse Others				V	V	V
Experiences	Student-Faculty Interaction						
with Faculty	Effective Teaching Practices						
Campus	Quality of Interactions						
Environment	Supportive Environment						



Engagement Indicators: Aero and Engineering

University of North Dakota

First-year students^a in

Aero and Engineering	Mea	n statistics			Percer	ntile ^d scores			(Comparison re	sults	
										Mean		Effect
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	diff.	Sig. ^f	size ^g
Academic Challenge												
Higher-Order Learning												
UND (N = 58)	35.3	10.1	1.33	20	30	35	40	55				
Plains Public	37.0	12.5	.42	20	30	40	45	60	919	-1.7		139
Carnegie Class	38.2	12.1	.20	20	30	40	45	60	3,868	-2.9		243
One UND	36.5	11.8	.89	20	30	35	45	60	234	-1.3		112
Reflective & Integrative Learning												-
UND (N = 59)	30.3	8.9	1.16	17	23	31	37	46				
Plains Public	33.1	11.6	.39	14	26	31	40	54	72	-2.8	*	248
Carnegie Class	33.2	11.1	.18	17	26	31	40	54	3,903	-2.9	*	263
One UND	31.4	12.0	.90	11	23	31	40	54	133	-1.1		100
Learning Strategies												
UND $(N = 59)$	30.5	13.9	1.80	7	20	33	40	53				
Plains Public	35.4	13.5	.46	13	27	33	47	60	919	-4.9	**	364
Carnegie Class	35.8	13.3	.22	13	27	33	47	60	3,850	-5.3	**	394
One UND	33.4	12.9	.97	13	27	33	40	60	233	-2.9		218
Quantitative Reasoning												
UND $(N = 59)$	29.8	11.0	1.44	7	20	27	40	53				
Plains Public	31.8	13.8	.47	7	20	33	40	60	71	-2.0		148
Carnegie Class	31.4	14.3	.23	7	20	33	40	60	61	-1.5		109
One UND	29.5	14.1	1.06	7	20	33	40	60	127	.3		.021
Learning with Peers												
Collaborative Learning												
UND $(N = 58)$	36.6	13.2	1.74	15	30	38	45	60				
Plains Public	37.5	13.8	.47	15	30	40	50	60	921	9		063
Carnegie Class	37.8	13.6	.22	15	30	40	50	60	3,897	-1.2		087
One UND	37.2	13.1	.98	15	25	40	45	60	233	5		041
Discussions with Diverse Others												
UND (N = 58)	35.9	13.6	1.79	20	25	35	40	60				
Plains Public	39.1	14.8	.50	15	30	40	50	60	923	-3.2		215
Carnegie Class	39.4	14.8	.24	15	30	40	50	60	3,859	-3.5		235
One UND	40.4	14.2	1.07	20	30	40	55	60	233	-4.5	*	318



Engagement Indicators: Aero and Engineering

University of North Dakota

First-year students^a in

Aero and Engineering	Mea	n statistics			Percei	ntile ^d scores			(Comparison re	sults	
										Mean		Effect
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	diff.	Sig. ^f	size ^g
Experiences with Faculty												
Student-Faculty Interaction												
UND (N = 59)	19.3	11.7	1.52	5	10	15	25	40				
Plains Public	21.3	14.0	.48	0	10	20	30	45	918	-2.0		143
Carnegie Class	19.0	13.7	.22	0	10	15	25	45	3,877	.3		.024
One UND	19.9	13.1	.98	0	10	20	25	45	234	5		042
Effective Teaching Practices												
UND (N = 59)	31.4	10.0	1.30	16	24	32	40	52				
Plains Public	37.0	11.9	.40	16	28	36	44	60	924	-5.6	***	479
Carnegie Class	36.7	12.4	.20	16	28	36	44	60	61	-5.3	***	434
One UND	36.4	11.8	.89	16	28	36	44	56	234	-5.0	**	440
Campus Environment												
Quality of Interactions												
UND (N = 55)	40.8	9.4	1.26	24	34	42	48	56				
Plains Public	42.8	11.2	.39	23	36	44	50	60	896	-2.1		186
Carnegie Class	42.4	11.3	.19	22	36	44	50	60	3,693	-1.6		141
One UND	43.3	10.2	.78	26	36	45	50	60	223	-2.5		251
Supportive Environment												
UND (N = 59)	30.1	10.1	1.31	13	23	30	38	49				
Plains Public	35.8	11.7	.40	18	28	35	43	58	924	-5.8	***	496
Carnegie Class	35.2	12.7	.21	15	28	35	43	60	61	-5.1	***	407
One UND	37.0	12.5	.95	15	30	38	45	60	123	-6.9	***	581



Engagement Indicators: Aero and Engineering

University of North Dakota

Seniors^a in

Aero and Engineering	Mea	n statistics			Percer	ntile ^d scores				Comparison re	sults	
		. h								Mean	. f	Effect
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom ^e	diff.	Sig. ^f	size ^g
Academic Challenge												
Higher-Order Learning												
UND $(N = 148)$	37.2	13.1	1.08	15	30	40	45	60				
Plains Public	36.9	13.0	.36	15	30	40	45	60	1,472	.3		.019
Carnegie Class	37.8	13.0	.19	15	30	40	45	60	4,607	6		047
One UND	36.6	11.9	.70	15	30	40	45	55	434	.6		.049
Reflective & Integrative Learning												
UND (N = 148)	30.3	11.8	.97	11	23	29	37	51				
Plains Public	31.7	11.4	.31	14	23	31	40	51	1,487	-1.3		118
Carnegie Class	32.8	11.3	.17	14	26	31	40	51	4,647	-2.5	**	220
One UND	32.1	11.1	.65	14	24	31	40	49	438	-1.8		155
Learning Strategies												
UND $(N = 147)$	36.3	14.8	1.22	13	27	33	47	60				
Plains Public	33.1	14.5	.40	7	20	33	40	60	1,475	3.2	*	.219
Carnegie Class	33.9	14.1	.21	13	27	33	40	60	4,597	2.4	*	.169
One UND	32.9	14.0	.83	13	20	33	40	60	433	3.4	*	.235
Quantitative Reasoning												
UND $(N = 148)$	36.3	15.4	1.27	13	27	33	47	60				
Plains Public	35.1	14.9	.41	13	27	33	47	60	1,471	1.1		.075
Carnegie Class	35.0	14.7	.22	13	27	33	47	60	4,600	1.3		.088
One UND	33.6	14.0	.82	13	20	33	40	60	435	2.6		.181
Learning with Peers												
Collaborative Learning												
UND $(N = 147)$	28.4	18.3	1.51	0	10	30	40	60				
Plains Public	40.0	13.5	.37	20	30	40	50	60	164	-11.5	***	824
Carnegie Class	40.5	13.8	.21	15	30	40	50	60	152	-12.0	***	860
One UND	40.5	13.3	.78	20	30	40	50	60	227	-12.1	***	798
Discussions with Diverse Others												
UND (N = 145)	31.6	17.9	1.49	0	20	30	45	60				
Plains Public	39.8	15.5	.43	15	30	40	55	60	169	-8.2	***	520
Carnegie Class	39.4	15.9	.24	15	30	40	55	60	151	-7.8	***	491
One UND	38.2	14.8	.87	15	30	40	50	60	246	-6.6	***	417



Engagement Indicators: Aero and Engineering

University of North Dakota

Seniors^a in

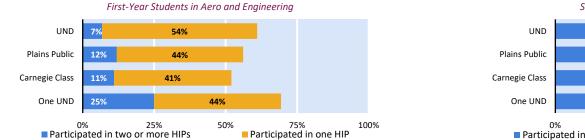
Aero and Engineering	Mea	n statistics			Percer	ntile ^d scores			C	omparison re	sults	
										Mean		Effect
	Mean	SD ^b	SEM ^c	5th	25th	50th	75th	95th	Deg. of freedom e	diff.	Sig. ^f	size ^g
Experiences with Faculty												
Student-Faculty Interaction												
UND (N = 146)	19.1	14.8	1.22	0	5	20	30	40				
Plains Public	24.8	15.0	.41	0	15	20	35	55	1,470	-5.7	***	382
Carnegie Class	23.1	15.0	.22	0	10	20	35	50	4,603	-4.0	**	265
One UND	25.0	15.2	.89	0	15	20	35	60	435	-6.0	***	395
Effective Teaching Practices												
UND (N = 148)	37.2	12.7	1.04	16	28	36	44	60				
Plains Public	35.6	12.8	.35	16	28	36	44	60	1,482	1.6		.125
Carnegie Class	36.3	12.9	.19	16	28	36	44	60	4,638	.9		.069
One UND	34.9	11.5	.68	16	28	36	40	52	434	2.3		.194
Campus Environment												
Quality of Interactions												
UND (N = 129)	40.8	12.1	1.06	18	34	42	50	60				
Plains Public	41.8	11.1	.31	20	35	42	50	60	1,408	9		081
Carnegie Class	40.4	11.7	.18	18	34	42	48	60	4,422	.5		.039
One UND	41.9	10.1	.60	24	36	43	48	56	214	-1.1		099
Supportive Environment												-
UND (N = 145)	28.2	13.8	1.15	8	18	28	38	55				
Plains Public	30.2	12.8	.35	8	20	30	40	53	1,477	-2.0		153
Carnegie Class	29.5	13.2	.20	8	20	30	40	53	4,614	-1.3		101
One UND	30.2	12.4	.73	10	23	30	40	53	432	-2.0		154

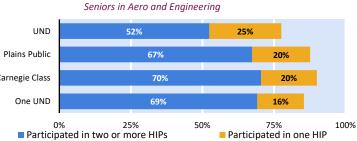


High-Impact Practices: Aero and Engineering University of North Dakota

Overall HIP Participation^{a,h}

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





Statistical Comparisons

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

			You	r students' participation con	npared with:			
	UND	Plains Public		Carnegie Class		One UND		
First-Year Students in Aero and Engineering	%	Difference ⁱ	ES ^j	<i>Difference</i> ^{<i>i</i>}	ES ^j	Difference ⁱ		ES ^j
12. Service-Learning	46	-1	02	+2	.04	-10		20
11c. Learning Community	22	+6	.14	+7	.18	-11		24
11e. Research with Faculty	0	-7	*53	-6	48	-7	*	55
Participated in at least one	61	+5	.10	+9	.18	-8		17
Participated in two or more	7	-5	18	-4	15	-18	**	52
Seniors in Aero and Engineering								
12. Service-Learning	46	-1	02	-1	03	-4		08
11c. Learning Community	20	-5	11	-6	14	-12	**	27
11e. Research with Faculty	26	-5	11	-7	15	-8		17
11a. Internship or Field Exp.	52	-5	10	-10	*20	-5		10
11d. Study Abroad	6	-7	*25	-8	**27	-7	*	24
11f. Culminating Senior Exp.	40	-12	**24	-18	***37	-11	*	22
Participated in at least one	78	-10	***27	-12	***34	-8	*	20
Participated in two or more	52	-15	***31	-18	***37	-17	**:	*35



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stu	idents ^a in					Frequer	ncy D	istributior	S				Sta	atistical	Comparis	sons ^k		
Aero and Eng	ineering													Your fi	rst-year stude	ents compar	ed with	
				UND		Plains Pub	lic	Carnegie C	ass	One UNI	C	UND	Plains	Public	Carnegie	e Class	One L	JND
Item wording or description	Variable name ^I	Values [*]	' Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
1. During the current s	school year, abou	t how o	often have you done th	e following?														
a. Asked questions or	askquest	1	Never	1	2	36	4	154	4	10	6							
contributed to course		2	Sometimes	29	51	334	38	1,590	41	83	47							
discussions in other		3	Often	20	35	343	39	1,419	37	61	34	2.6	2.7	17	2.7	14	2.6	.03
ways		4	Very often	7	12	159	18	697	18	24	13							
			Total	57	100	872	100	3,860	100	178	100							
b. Prepared two or more	drafts	1	Never	8	14	194	22	805	21	47	26							
drafts of a paper or		2	Sometimes	14	24	338	39	1,451	38	66	37							
assignment before		3	Often	30	51	223	26	1,094	28	46	26	2.6	2.3 *	.33	2.3 *	.29	2.2 **	.43
turning it in		4	Very often	7	12	114	13	504	13	19	11				Δ			
			Total	59	100	869	100	3,854	100	178	100							
c. Come to class without	unpreparedr	1	Very often	6	10	48	5	183	5	9	5							
completing readings or	(Reverse-coded	2	Often	11	19	112	13	510	13	19	11							
assignments	version of	3	Sometimes	32	54	496	57	2,179	56	105	59	2.8	3.0 *	30	3.0 *	33	3.0 *	34
	unprepared	4	Never	10	17	217	25	992	26	45	25		▽		•		•	
	created by NSSE.)		Total	59	100	873	100	3,864	100	178	100							
d. Attended an art exhibit,	, attendart	1	Never	32	54	408	47	1,642	43	68	38							
play, or other arts		2	Sometimes	12	20	318	36	1,518	39	73	41							
performance (dance,		3	Often	11	19	91	10	500	13	26	15	1.8	1.8	.02	1.8	03	1.9	12
music, etc.)		4	Very often	4	7	55	6	198	5	11	6							
			Total	59	100	872	100	3,858	100	178	100							
e. Asked another student	CLaskhelp	1	Never	3	5	31	4	172	4	6	3							
to help you understand		2	Sometimes	17	29	257	29	1,112	29	50	28							
course material		3	Often	25	42	361	41	1,483	38	79	44	2.8	2.9	05	2.9	07	2.9	06
		4	Very often	14	24	224	26	1,100	28	43	24							
			Total	59	100	873	100	3,867	100	178	100							
f. Explained course	CLexplain	1	Never	2	3	21	2	84	2	5	3							
material to one or more	;	2	Sometimes	16	28	233	27	1,053	27	48	27							
students		3	Often	29	50	367	42	1,640	42	77	44	2.8	3.0	15	3.0	15	2.9	12
		4	Very often	11	19	248	29	1,084	28	47	27							
			Total	58	100	869	100	3,861	100	177	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stud	lents ^a in					Frequer	ncy D	istribution	S				Sta	atistical	Comparis	ons ^k		
Aero and Engi	neering													Your fi	rst-year stude	nts compar	ed with	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UND	b	UND	Plains	Public	Carnegie	Class	One l	UND
Item wording	Variable name ^I		"			<u> </u>	%	c	%					Effect size "		Effect size ⁿ		Effect
or description g. Prepared for exams by	CLstudy	Values' 1	ⁿ Response options Never	Count 5	% 8	Count 82	<u>%</u> 9	Count 372	10	Count 15	<u>%</u> 8	Mean	Mean	size	Mean	size	Mean	size "
discussing or working	-	2	Sometimes	17	29	263	30	1,147	30	53	30							
through course material		3	Often	25	42	289	33	1,329	34	68	38	2.7	2.8	04	2.8	03	2.8	03
with other students		4	Very often	12	20	237	27	1,011	26	42	24							
			Total	59	100	871	100	3,859	100	178	100							
h. Worked with other	CLproject	1	Never	1	2	37	4	124	3	5	3							
students on course		2	Sometimes	16	27	270	31	1,089	28	56	31							
projects or assignments		3	Often	30	51	340	39	1,630	42	79	44	2.9	2.9	.04	2.9	02	2.8	.07
		4	Very often	12	20	223	26	1,016	26	38	21							
			Total	59	100	870	100	3,859	100	178	100							
i. Given a course	present	1	Never	10	17	228	26	707	18	36	20							
presentation		2	Sometimes	33	56	382	44	1,901	49	75	42							
		3	Often	13	22	188	22	901	23	54	31	2.2	2.1	.04	2.2	09	2.2	10
		4	Very often	3	5	70	8	350	9	12	7							
			Total	59	100	868	100	3,859	100	177	100							
2. During the current scl	hool vear, abo	ut how	often have you done th	e following?							'							
a. Combined ideas from	Rlintegrate	1	Never	4	7	54	6	290	8	15	8							
different courses when	-	2	Sometimes	20	34	365	42	1,623	42	77	43							
completing assignments		3	Often	31	53	314	36	1,451	38	68	38	2.6	2.6	05	2.6	.02	2.5	.09
		4	Very often	3	5	137	16	490	13	18	10							
			Total	58	100	870	100	3,854	100	178	100							
b. Connected your	RIsocietal	1	Never	7	12	120	14	552	14	32	18							
learning to societal		2	Sometimes	37	63	434	50	1,821	47	93	52							
problems or issues		3	Often	14	24	225	26	1,105	29	40	22	2.2	2.3 *	21	2.3 *	22	2.2	05
		4	Very often	1	2	91	10	377	10	13	7		V		∇			
			Total	59	100	870	100	3,855	100	178	100							
c. Included diverse	RIdiverse	1	Never	10	17	158	18	639	17	33	19							
perspectives (political,		2	Sometimes	33	56	382	44	1,732	45	86	49							
religious, racial/ethnic, gender, etc.) in course		3	Often	14	24	254	29	1,066	28	45	25	2.1	2.3	18	2.3	22	2.2	10
discussions or		4	Very often	2	3	77	9	412	11	13	7							
assignments			Total	59	100	871	100	3,849	100	177	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stud	dents ^a in					Freque	ncy D	istribution	S				Sta	atistical	Comparis	sons ^k		
Aero and Engi	neering													Your fi	rst-year stude	ents compai	red with	
_	-			UND		Plains Pub	lic	Carnegie Cl	ass	One UNI	D	UND	Plains	Public	Carnegie	e Class	One	UND
Item wording or description	Variable name ^I	Values [*]	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
d. Examined the strengths	RIownview	1	Never	1	2	50	6	211	5	12	7							
and weaknesses of		2	Sometimes	25	42	305	35	1,291	34	74	42							
your own views on a topic or issue		3	Often	28	47	383	44	1,743	45	65	37	2.6	2.7	07	2.7	11	2.6	.04
topic of issue		4	Very often	5	8	132	15	607	16	26	15							
			Total	59	100	870	100	3,852	100	177	100							
e. Tried to better	RIperspect	1	Never	2	3	35	4	141	4	11	6							
understand someone		2	Sometimes	22	37	249	29	1,094	28	55	31							
else's views by		3	Often	28	47	406	47	1,804	47	76	43	2.7	2.8	21	2.9	22	2.8	11
imagining how an issue looks from their		4	Very often	7	12	181	21	812	21	36	20							
perspective			Total	59	100	871	100	3,851	100	178	100							
f. Learned something that	RInewview	1	Never	1	2	27	3	130	3	8	4							
changed the way you		2	Sometimes	24	41	283	33	1,261	33	60	34							
understand an issue or concept		3	Often	27	46	377	43	1,686	44	77	43	2.7	2.8	18	2.8	16	2.8	10
concept		4	Very often	7	12	181	21	762	20	33	19							
			Total	59	100	868	100	3,839	100	178	100							
g. Connected ideas from	RIconnect	1	Never	0	0	9	1	51	1	2	1							
your courses to your		2	Sometimes	17	30	191	22	824	21	43	24							
prior experiences and knowledge		3	Often	36	63	454	52	1,968	51	91	52	2.8	3.0 *	33	3.0 *	34	3.0	27
Kilowicage		4	Very often	4	7	215	25	1,005	26	40	23		•		▼			
			Total	57	100	869	100	3,848	100	176	100							
3. During the current sc	hool year, abo	ut how o	often have you done th	e following?														
a. Talked about career	SFcareer	1	Never	9	15	145	17	977	25	34	19							
plans with a faculty		2	Sometimes	29	49	399	46	1,705	44	87	49							
member		3	Often	16	27	231	27	790	21	38	21	2.3	2.3	03	2.1	.16	2.2	.06
		4	Very often	5	8	95	11	371	10	19	11							
			Total	59	100	870	100	3,843	100	178	100							
b. Worked with a faculty	SFotherwork	1	Never	29	49	376	43	1,975	51	91	51							
member on activities		2	Sometimes	22	37	294	34	1,191	31	53	30							
other than coursework (committees, student		3	Often	8	14	144	17	481	13	24	14	1.6	1.9	24	1.7	08	1.7	09
groups, etc.)		4	Very often	0	0	55	6	198	5	9	5							
5-04P0, etc.)			Total	59	100	869	100	3,845	100	177	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stud	dents ^a in					Frequer	ncy D	istributior	IS				St	atistical	Comparis	sons ^k		
Aero and Engi	neering													Your fi	rst-year stude	ents compai	red with	
				UND		Plains Pub	lic	Carnegie C	ass	One UNI	D	UND	Plains	Public	Carnegie	e Class	One	UND
Item wording or description	Variable name ^I	Values'	^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
c. Discussed course	SFdiscuss	1	Never	19	32	251	29	1,242	32	47	26	Meun	weam	3120	Weam	3120	Weam	3120
topics, ideas, or		2	Sometimes	26	44	392	45	1,756	46	91	51							
concepts with a faculty member outside of		3	Often	13	22	167	19	612	16	30	17	1.9	2.0	12	2.0	03	2.0	11
class		4	Very often	1	2	58	7	233	6	10	6							
Chasts			Total	59	100	868	100	3,843	100	178	100							
d. Discussed your	SFperform	1	Never	10	17	228	26	1,151	30	48	27							
academic performance		2	Sometimes	39	66	412	47	1,821	47	89	50							
with a faculty member		3	Often	10	17	182	21	653	17	33	19	2.0	2.1	08	2.0	.02	2.0	01
		4	Very often	0	0	51	6	222	6	8	4							
			Total	59	100	873	100	3,847	100	178	100							
4. During the current sci	hool year, how	much l	has your coursework e	mphasized th	e follo	owing?												
a. Memorizing course	memorize	1	Very little	1	2	26	3	129	3	7	4							
material		2	Some	19	32	254	29	1,125	29	49	28							
		3	Quite a bit	27	46	417	48	1,765	46	93	53	2.8	2.8	.00	2.9	01	2.8	.06
		4	Very much	12	20	173	20	825	21	28	16							
			Total	59	100	870	100	3,844	100	177	100							
b. Applying facts,	HOapply	1	Very little	0	0	15	2	76	2	1	1							
theories, or methods to		2	Some	15	25	153	18	669	17	35	20							
practical problems or		3	Quite a bit	29	49	418	48	1,831	48	82	46	3.0	3.1	16	3.1	15	3.1	18
new situations		4	Very much	15	25	287	33	1,269	33	60	34							
			Total	59	100	873	100	3,845	100	178	100							
c. Analyzing an idea,	HOanalyze	1	Very little	1	2	36	4	116	3	3	2							
experience, or line of		2	Some	14	24	227	26	904	24	51	29							
reasoning in depth by		3	Quite a bit	30	51	395	45	1,769	46	78	44	3.0	2.9	.08	3.0	02	2.9	.04
examining its parts		4	Very much	14	24	211	24	1,052	27	46	26							
			Total	59	100	869	100	3,841	100	178	100							
d. Evaluating a point of	HOevaluate	1	Very little	3	5	73	8	225	6	23	13							
view, decision, or		2	Some	27	47	323	37	1,257	33	59	33							
information source		3	Quite a bit	23	40	346	40	1,653	43	73	41	2.5	2.6	11	2.7 *	27	2.5	03
		4	Very much	5	9	128	15	698	18	23	13				V			
			Total	58	100	870	100	3,833	100	178	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stud	lents ^a in					Freque	ncy D	istributior	S				Sta	atistical	Comparis	ons ^k		
Aero and Engi	neering													Your fi	irst-year stude	ents compai	red with	
				UND		Plains Pub	lic	Carnegie C	ass	One UND)	UND	Plains I	Public	Carnegie	e Class	One l	JND
Item wording or description	Variable name ^I	Values'	^a Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
e. Forming a new idea or	HOform	1	Very little	3	5	50	6	152	4	8	4	Wean	weun	3120	weun	3120	Weun	3120
understanding from		2	Some	23	39	264	30	1,194	31	67	38							
various pieces of information		3	Quite a bit	29	49	384	44	1,730	45	73	41	2.6	2.8	24	2.8 *	29	2.7	16
mormation		4	Very much	4	7	170	20	764	20	30	17				V			
			Total	59	100	868	100	3,840	100	178	100							
5. During the current scl	hool year, to w	hat exte	ent have your instructo	ors done the f	follow	ing?												
a. Clearly explained	ETgoals	1	Very little	2	3	22	3	109	3	5	3							
course goals and		2	Some	23	39	182	21	870	23	39	22							
requirements		3	Quite a bit	28	47	443	51	1,814	47	89	50	2.6	3.0 ***	47	3.0 ***	44	3.0 **	44
		4	Very much	6	10	221	25	1,049	27	45	25		V		▼		▼	
			Total	59	100	868	100	3,842	100	178	100							
b. Taught course sessions	ETorganize	1	Very little	3	5	28	3	134	3	6	3							
in an organized way		2	Some	17	29	171	20	885	23	36	20							
		3	Quite a bit	34	58	454	52	1,783	46	99	56	2.7	3.0 **	38	3.0 **	34	2.9 *	33
		4	Very much	5	8	213	25	1,035	27	36	20		▼		▼		▼	
			Total	59	100	866	100	3,837	100	177	100							
c. Used examples or	ETexample	1	Very little	2	3	25	3	127	3	4	2							
illustrations to explain		2	Some	21	36	168	19	842	22	35	20							
difficult points		3	Quite a bit	29	49	407	47	1,735	45	87	49	2.7	3.1 ***	47	3.0 **	39	3.1 **	47
		4	Very much	7	12	269	31	1,135	30	52	29		V		▼		▼	
			Total	59	100	869	100	3,839	100	178	100							
d. Provided feedback on a	ETdraftfb	1	Very little	6	10	94	11	392	10	21	12							
draft or work in		2	Some	29	49	309	36	1,344	35	64	37							
progress		3	Quite a bit	18	31	313	36	1,419	37	63	36	2.4	2.6	21	2.6	24	2.5	16
		4	Very much	6	10	149	17	679	18	27	15							
			Total	59	100	865	100	3,834	100	175	100							
e. Provided prompt and	ETfeedback	1	Very little	5	8	83	10	369	10	22	12							
detailed feedback on tests or completed		2	Some	30	51	291	34	1,420	37	54	31							
assignments		3	Quite a bit	19	32	364	42	1,463	38	77	44	2.4	2.6	26	2.6	21	2.6	21
		4	Very much	5	8	130	15	588	15	24	14							
			Total	59	100	868	100	3,840	100	177	100							



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

First-Year Stu	idents ^a in					Frequer	ncy D	istribution	S				Sta	atistical	Comparis	ons ^k		
Aero and Eng	gineering													Your fi	rst-year stude	ents compar	red with	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNI)	UND	Plains	Public	Carnegie	e Class	One U	ND
Item wording or description	Variable name ^I	Values [*]	^a Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
6. During the current	school year, about	how o	often have you done th	e following?														
a. Reached conclusions	QRconclude	1	Never	2	3	33	4	169	4	10	6							
based on your own		2	Sometimes	12	20	209	24	1,094	29	49	28							
analysis of numerical		3	Often	36	61	416	48	1,715	45	79	45	2.9	2.9	06	2.8	.04	2.8	.06
information (numbers, graphs, statistics, etc.)		4	Very often	9	15	210	24	856	22	39	22							
graphs, statistics, etc.)			Total	59	100	868	100	3,834	100	177	100							
b. Used numerical	QRproblem	1	Never	12	20	161	19	653	17	45	25							-
information to examine		2	Sometimes	26	44	316	36	1,484	39	60	34							
a real-world problem o	r	3	Often	16	27	273	31	1,195	31	53	30	2.2	2.4	18	2.4	18	2.3	02
issue (unemployment, climate change, public		4	Very often	5	8	120	14	501	13	19	11							
health, etc.)			Total	59	100	870	100	3,833	100	177	100							
ilouilii, otoiy								-,										
c. Evaluated what others	QRevaluate	1	Never	8	14	112	13	475	12	24	14							
have concluded from		2	Sometimes	25	42	347	40	1,568	41	80	45							
numerical information		3	Often	23	39	325	37	1,324	35	58	33	2.4	2.4	11	2.5	12	2.4	.00
		4	Very often	3	5	87	10	452	12	14	8							
			Total	59	100	871	100	3,819	100	176	100							
7. During the current	school year, about	how 1	nany papers, reports,	or other writ	ing ta	sks of the fo	llowin	g lengths ha	ve you	been assig	ned? (1	Include those not	yet comp	leted.)				
a. Up to 5 pages	wrshortnum	0	None	1	2	97	11	268	7	20	11							
	(Recoded version	1.5	1-2	10	17	232	27	844	22	44	25							
	of wrshort created	4	3-5	25	42	260	30	1,295	34	50	28							
	by NSSE. Values	8	6-10	13	22	155	18	807	21	39	22	6.3	5.4	.16	6.0	.04	5.5	.14
	are estimated	13	11-15	7	12	68	8	337	9	12	7							
	number of papers, reports, etc.)	18	16-20	2	3	31	4	132	3	7	4							
	reports, etc.)	23	More than 20	1	2	27	3	151	4	5	3							
			Total	59	100	870	100	3,834	100	177	100							
b. Between 6 and 10	wrmednum	0	None	12	20	388	45	1,372	36	79	45							
pages	(Recoded version	1.5	1-2	21	36	300	35	1,578	41	63	36							
	of wrmed created	4	3-5	22	37	102	12	589	15	21	12							
	by NSSE. Values	8	6-10	3	5	57	7	204	5	11	6	2.8	1.9 *	.33	2.0 *	.27	1.7 **	.40
	are estimated	13	11-15	0	0	18	2	55	1	1	1				Δ			
	number of papers,	18	16-20	0	0	1	0	12	0	1	1							
	reports, etc.)	23	More than 20	1	2	2	0	18	0	0	0							
			Total	59	100	868	100	3,828	100	176	100							



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

First-Year St	udents ^a in					Freque	ncy D	istributior	IS				St	atistical	Comparis	ons ^k		
Aero and En	gineering													Your fi	rst-year stude	nts compar	ed with	
				UND		Plains Put	olic	Carnegie C	lass	One UNI	D	UND	Plains	Public	Carnegie	Class	One U	JND
Item wording or description	Variable name ^I	Values'	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
c. 11 pages or more	wrlongnum	0	None	37	64	683	79	2,861	75	143	81		mean	5120	mean	5,20	mean	5120
	(Recoded version	1.5	1-2	20	34	116	13	683	18	23	13							
	of wrlong created	4	3-5	0	0	29	3	147	4	7	4							
	by NSSE. Values	8	6-10	0	0	19	2	71	2	1	1	.9	.8	.03	.9	.02	.5	.17
	are estimated number of papers,	13	11-15	0	0	14	2	38	1	2	1							
	reports, etc.)	18	16-20	0	0	2	0	14	0	0	0							
	• • •	23	More than 20	1	2	3	0	16	0	0	0							
			Total	58	100	866	100	3,830	100	176	100							
Estimated number of assigned pages of	wrpages											55.1	43.5	.18	46.8	.13	38.3 *	.30
student writing.	(Continuous variab from wrshort, wrm estimated pages of	ed, and	-									55.1	43.5	.10	40.8	.15	▲	.50
8. During the current	t school year, abou	t how	often have you had dise	cussions with	peop	le from the f	ollowi	ng groups?										
a. People of a race or	DDrace	1	Never	1	2	42	5	185	5	12	7							
ethnicity other than		2	Sometimes	30	51	261	30	1,081	28	50	28							
your own		3	Often	16	27	315	36	1,180	31	60	34	2.7	2.9	26	3.0 **	35	2.9	26
		4	Very often	12	20	251	29	1,387	36	55	31				▼			
			Total	59	100	869	100	3,833	100	177	100							
b. People from an	DDeconomic	1	Never	1	2	30	3	140	4	7	4							
economic background	1	2	Sometimes	20	34	224	26	921	24	37	21							
other than your own		3	Often	22	38	349	40	1,444	38	75	42	2.9	3.0	12	3.0	18	3.0	19
		4	Very often	15	26	267	31	1,326	35	58	33							
			Total	58	100	870	100	3,831	100	177	100							
c. People with religious	0	1	Never	2	3	40	5	277	7	9	5							
		2	Sometimes	24	41	237	27	1,042	27	33	19							
beliefs other than you	Ш	2					26	1,234	32	71	40	2.8	3.0	22	2.9	16	3.1 *	36
beliefs other than you own	II.	3	Often	19	32	316	36	1,254										
	Ш		Often Very often	19 14	32 24	316 277	36 32	1,279	33	64	36						▼	
	Ш	3		14 59						64 177	36 100						▼	
own d. People with political	DDpolitical	3	Very often	14	24	277	32	1,279	33								•	
own d. People with political views other than your	DDpolitical	3 4	Very often Total	14 59 2 20	24 100 3 34	277 870	32 100 4 25	1,279 3,832 193 1,066	33 100 5 28	177 6 37	100 3 21						•	
own d. People with political	DDpolitical	3 4	Very often Total Never	14 59 2	24 100 3 34 39	277 870 39	32 100 4 25 37	1,279 3,832 193 1,066 1,329	33 100 5 28 35	177	100 3 21 40	2.8	3.0	18	2.9	13	3.1 *	30
own d. People with political views other than your	DDpolitical	3 4 1 2	Very often Total Never Sometimes	14 59 2 20	24 100 3 34	277 870 39 218	32 100 4 25	1,279 3,832 193 1,066	33 100 5 28	177 6 37	100 3 21	2.8	3.0	18	2.9	13		30



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stu	dents ^a in					Freque	ncy D	istributior	IS				Sta	tistical	Comparis	ons ^k		
Aero and Engi	neering													Your fi	rst-year stude	nts compar	ed with	
				UND		Plains Put	olic	Carnegie C	lass	One UNI	D	UND	Plains I	Public	Carnegie	Class	One U	IND
Item wording or description	Variable name ^I	Values [*]	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
9. During the current so	chool year, abo	ut how o	often have you done th	e following?														
a. Identified key	LSreading	1	Never	2	3	36	4	115	3	9	5							
information from		2	Sometimes	20	34	269	31	1,068	28	61	35							
reading assignments		3	Often	34	58	397	46	1,872	49	73	41	2.6	2.8	20	2.9 *	28	2.7	12
		4	Very often	3	5	165	19	765	20	33	19				∇			
			Total	59	100	867	100	3,820	100	176	100							
b. Reviewed your notes	LSnotes	1	Never	8	14	40	5	210	5	12	7							
after class		2	Sometimes	23	39	302	35	1,277	33	63	36							
		3	Often	21	36	297	34	1,359	36	65	37	2.5	2.8 **	42	2.8 **	40	2.7 *	30
		4	Very often	7	12	228	26	977	26	37	21		•		▼		∇	
			Total	59	100	867	100	3,823	100	177	100							
c. Summarized what you	LSsummary	1	Never	9	15	58	7	288	8	16	9							
learned in class or from		2	Sometimes	21	36	327	38	1,367	36	71	40							
course materials		3	Often	21	36	311	36	1,422	37	66	38	2.5	2.7	25	2.7	25	2.5	08
		4	Very often	8	14	172	20	753	20	23	13							
			Total	59	100	868	100	3,830	100	176	100							
10. During the current	school year, to	what ex	tent have your courses	s challenged y	ou to	do your bes	t work	: ?										
	challenge	1	Not at all	1	2	6	1	36	1	0	0							
		2		2	3	9	1	45	1	3	2							
		3		4	7	36	4	166	4	1	1							
		4		3	5	91	10	385	10	18	10	5.3	5.5	13	5.5	13	5.6	27
		5		18	31	291	34	1,240	32	56	32							
		6		22	37	244	28	1,055	28	55	31							
		7	Very much	9	15	190	22	895	23	42	24							
			Total	59	100	867	100	3,822	100	175	100							
11. Which of the follow	ing have you de	one or d	o you plan to do befor	e you gradua	te?°													
a. Participate in an	intern		Have not decided	3	5	60	7	296	8	15	9							
internship, co-op, field	(Means indicate		Do not plan to do	4	7	39	5	106	3	6	3							
experience, student	the percentage		Plan to do	52	88	702	81	3,144	82	137	78	0%	8% *	56	7% *	55	10% *	63
teaching, or clinical placement	who responded		Done or in progress	0	0	65	8	285	7	17	10		V		▼		•	
placement	"Done or in progress.")		Total	59	100	866	100	3,831	100	175	100		•		*		•	



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

First-Year Stu	dents ^a in				Frequer	icy Di	stribution	S				St		Comparis			
Aero and Engi	neering												Your fi	rst-year stud	ents compai	red with	
			UND		Plains Pub	lic	Carnegie Cl	ass	One UNI	5	UND	Plains	Public	Carnegi	e Class	One l	UND
Item wording or description	Variable name ^I	Values ^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
b. Hold a formal	leader	Have not decided	19	34	203	23	1,045	27	45	26	mean	mean	5.20	mean	5,20	mean	5,20
leadership role in a	(Means indicate	Do not plan to do	10	18	159	18	799	21	33	19							
student organization or group	the percentage	Plan to do	21	38	374	43	1,537	40	67	38	11%	15%	13	12%	03	17%	19
group	who responded	Done or in progress	6	11	130	15	444	12	30	17							
	"Done or in progress.")	Total	56	100	866	100	3,825	100	175	100							
c. Participate in a learning		Have not decided	19	33	221	25	1,232	32	30	17							
community or some	(Means indicate	Do not plan to do	16	28	308	36	1,104	29	64	37							
other formal program	the percentage	Plan to do	10	17	193	22	893	23	22	13	22%	17%	.14	15%	.18	33%	24
where groups of students take two or	who responded	Done or in progress	13	22	145	17	589	15	58	33							
more classes together	"Done or in progress.")	Total	58	100	867	100	3,818	100	174	100							
d. Participate in a study	abroad	Have not decided	20	34	253	29	1,169	31	51	29							
abroad program	(Means indicate	Do not plan to do	28	47	330	38	1,292	34	61	35							
	the percentage	Plan to do	10	17	260	30	1,254	33	59	34	2%	3%	07	3%	06	3%	08
	who responded	Done or in progress	1	2	24	3	98	3	5	3							
	"Done or in progress.")	Total	59	100	867	100	3,813	100	176	100							
e. Work with a faculty	research	Have not decided	30	51	322	37	1,422	37	67	39							
member on a research	(Means indicate	Do not plan to do	9	15	144	17	549	14	27	16							
project	the percentage	Plan to do	20	34	343	40	1,642	43	67	39	0%	7% *	53	6%	48	7% *	55
	who responded	Done or in progress	0	0	59	7	215	6	13	7	0,0	•	100	070		▼	100
	"Done or in progress.")	Total	59	100	868	100	3,828	100	174	100		·				·	
f. Complete a culminating	capstone	Have not decided	18	31	241	28	930	24	43	24							
senior experience	(Means indicate	Do not plan to do	0	0	68	8	230	6	13	7							
(capstone course, senior project or thesis,	the percentage	Plan to do	41	69	543	62	2,612	68	119	68	0%	2%	28	1%	24	1%	15
comprehensive exam,	who responded	Done or in progress	0	0	17	2	57	1	1	1							
portfolio, etc.)	"Done or in progress.")	Total	59	100	869	100	3,829	100	176	100							
12. About how many of	your courses at	this institution have include	led a communit	v-base	ed project (se	ervice	learning)?										
· · · · · · · · · · · · · · · · · · ·	servcourse	1 None	32	54	462	53	2,155	56	78	44							
		2 Some	25	42	337	39	1,402	37	85	48							
		3 Most	2	3	55	6	217	6	12	7	1.5	1.6	10	1.5	04	1.6	23
		4 All	0	0	13	1	53	1	1	1							
		Total	59	100	867	100	3,827	100	176	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stu	ıdents ^a in				Frequer	ncy Di	istributior	IS				St	atistical	Comparis	sons ^k		
Aero and Eng	ineering												Your f	irst-year stud	ents compar	red with	
			UND		Plains Pub	lic	Carnegie C	lass	One UNI	D	UND	Plains	Public	Carnegi	e Class	One l	UND
Item wording or description	Variable name ^I	Values ^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
		ctions with the following pe				70	count	70	count	70	Mean	Wican	5120	mean	5120	mean	5120
a. Students	QIstudent	1 Poor	0	0	8	1	45	1	1	1							
		2	0	0	10	1	57	1	1	1							
		3	2	3	45	5	177	5	7	4							
		4	11	19	78	9	429	11	18	10							
		5	20	34	251	29	1,090	28	58	33	5.4	5.5	14	5.5	10	5.5	12
		6	16	27	259	30	1,068	28	55	31							
		7 Excellent	10	17	216	25	955	25	35	20							
		 Not applicable 	0	0	3	0	15	0	0	0							
		Total	59	100	870	100	3,836	100	175	100							
b. Academic advisors	QIadvisor	1 Poor	0	0	13	1	120	3	2	1							
		2	2	3	39	4	149	4	8	5							
		3	5	8	59	7	296	8	9	5							
		4	18	31	110	13	551	14	19	11							
		5	8	14	195	22	779	20	36	21	5.1	5.3	17	5.2	09	5.5	27
		6	14	24	213	25	797	21	47	27							
		7 Excellent	12	20	228	26	1,022	27	51	29							
		 Not applicable 	0	0	12	1	115	3	3	2							
		Total	59	100	869	100	3,829	100	175	100							
c. Faculty	QIfaculty	1 Poor	1	2	13	1	47	1	0	0							
		2	3	5	21	2	96	3	6	3							
		3	6	11	58	7	263	7	8	5							
		4	13	23	127	15	552	14	30	17							
		5	17	30	237	27	1,104	29	57	33	4.7	5.2 **	39	5.2 **	39	5.2 *	39
		6	13	23	253	29	1,035	27	49	28		V		▼		▼	
		7 Excellent	4	7	154	18	699	18	24	14							
		 Not applicable 	0	0	6	1	28	1	1	1							
		Total	57	100	869	100	3,824	100	175	100							



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

First-Year Stu	dents ^a in					Frequer	ncy Di	stribution	s				Sta	atistical	Compari	sons ^k		
Aero and Engi	neering													Your fi	rst-year stud	ents compar	ed with	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNE	C	UND	Plains	Public	Carnegi	e Class	One l	UND
Item wording or description	Variable name ^I	Values'	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
d. Student services staff	QIstaff	1	Poor	0	70	16	2	100	3	3	2	Meun	weun	5120	wean	SIZE	weun	SIZE
(career services,		2		1	2	34	4	126	3	5	3							
student activities,		3		3	5	58	7	276	7	7	4							
housing, etc.)		4		13	22	111	13	547	14	20	11							
		5		13	22	223	26	841	22	46	26	5.2	5.2	.01	5.1	.03	5.4	14
		6		18	31	190	22	843	22	43	25							
		7	Excellent	7	12	170	20	748	20	40	23							
		_	Not applicable	3	5	66	8	345	9	11	6							
			Total	58	100	868	100	3,826	100	175	100							
e. Other administrative	QIadmin	1	Poor	0	0	22	3	109	3	4	2							
staff and offices		2		1	2	25	3	147	4	2	1							
(registrar, financial aid,		3		6	10	58	7	261	7	10	6							
etc.)		4		15	25	134	15	563	15	34	19							
		5		13	22	202	23	877	23	36	20	4.9	5.1	14	5.1	09	5.2	15
		6		13	22	207	24	815	21	42	24							
		7	Excellent	7	12	163	19	727	19	29	16							
		_	Not applicable	4	7	56	6	333	9	19	11							
			Total	59	100	867	100	3,832	100	176	100							
14. How much does you	r institution em	phasize	e the following?															
a. Spending significant	empstudy	1	Very little	3	5	6	1	49	1	0	0							
amounts of time		2	Some	18	31	134	15	515	13	26	15							
studying and on		3	Quite a bit	27	46	445	51	1,840	48	87	49	2.8	3.2 ***	•54	3.2 **	*60	3.2 ***	*60
academic work		4	Very much	11	19	282	33	1,426	37	63	36		•		•		▼	
			Total	59	100	867	100	3,830	100	176	100							
b. Providing support to	SEacademic	1	Very little	2	3	18	2	105	3	3	2							
help students succeed		2	Some	19	33	168	19	739	19	40	23							
academically		3	Quite a bit	28	48	412	48	1,686	44	67	38	2.8	3.1 **	41	3.1 **	42	3.1 **	44
		4	Very much	9	16	269	31	1,301	34	65	37		•		•		▼	
			Total	58	100	867	100	3,831	100	175	100							
c. Using learning support	SElearnsup	1	Very little	3	5	31	4	118	3	10	6							
services (tutoring		2	Some	21	36	144	17	590	15	34	19							
services, writing		3	Quite a bit	28	47	397	46	1,522	40	60	34	2.7	3.1 ***	•55	3.2 **	*67	3.1 **	50
center, etc.)		4	Very much	7	12	293	34	1,594	42	71	41		•		•		•	
			Total	59	100	865	100	3,824	100	175	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stud	lents ^a in					Frequen	icy Di	istribution	S				Sta	tistical	Compariso	ons ^k		
Aero and Engi	neering													Your fii	rst-year studer	nts compare	ed with	
_	_			UND		Plains Pub	lic	Carnegie Cl	ass	One UND)	UND	Plains P	ublic	Carnegie	Class	One UI	ND
Item wording	Variable name ^I	Values'	^a Response options	Grunt		Count	0/	Count		Count				Effect size "		Effect size "		Effect size "
d. Encouraging contact	SEdiverse	values 1	Very little	Count 12	% 20	Count 86	% 10	Count 477	% 12	Count 16	<u>%</u> 9	Mean	Mean	size	Mean	size	Mean	size
among students from		2	Some	26	44	250	29	1,265	33	59	34							
different backgrounds (social, racial/ethnic,		3	Quite a bit	18	31	339	39	1,285	34	61	35	2.2	2.7 ***	58	2.6 ***	45	2.7 ***	56
(social, facial/etillic, religious, etc.)		4	Very much	3	5	191	22	792	21	40	23		•		▼		▼	
<u> </u>			Total	59	100	866	100	3,819	100	176	100							
e. Providing opportunities	SEsocial	1	Very little	2	3	33	4	199	5	6	3							
to be involved socially		2	Some	21	36	209	24	938	25	38	22							
		3	Quite a bit	34	58	395	46	1,633	43	80	45	2.6	2.9 **	42	2.9 **	37	3.0 ***	53
		4	Very much	2	3	229	26	1,052	28	52	30		V		▼		▼	
			Total	59	100	866	100	3,822	100	176	100							
f. Providing support for	SEwellness	1	Very little	2	3	30	3	262	7	7	4							
your overall well-being (recreation, health care,		2	Some	14	24	192	22	948	25	32	18							
counseling, etc.)		3	Quite a bit	36	61	409	47	1,599	42	68	39	2.8	3.0	21	2.9	08	3.1 **	39
B,)		4	Very much	7	12	235	27	1,011	26	69	39						▼	
			Total	59	100	866	100	3,820	100	176	100							
g. Helping you manage	SEnonacad	1	Very little	15	25	187	22	951	25	37	21							
your non-academic responsibilities (work,		2	Some	25	42	353	41	1,483	39	76	43							
family, etc.)		3	Quite a bit	17	29	238	27	988	26	41	23	2.1	2.3	18	2.2	12	2.3	19
,,,,,,		4	Very much	2	3	90	10	392	10	22	13							
			Total	59	100	868	100	3,814	100	176	100							
h. Attending campus	SEactivities	1	Very little	4	7	55	6	314	8	11	6							
activities and events (performing arts,		2	Some	16	27	253	29	1,087	28	37	21							
athletic events, etc.)		3	Quite a bit	31	53	365	42	1,561	41	78	45	2.7	2.8	09	2.8	05	2.9	25
		4	Very much	8	14	192	22	859	22	48	28							
			Total	59	100	865	100	3,821	100	174	100							
i. Attending events that	SEevents	1	Very little	12	20	124	14	696	18	22	13							
address important social, economic, or		2	Some	29	49	348	40	1,538	40	70	40							
political issues		3	Quite a bit	16	27	298	34	1,107	29	56	32	2.1	2.4 **	33	2.4 *	24	2.5 **	41
-		4	Very much	2	3	97	11	477	12	26	15		•		∇		▼	
			Total	59	100	867	100	3,818	100	174	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stu	dents ^a in					Frequer	ncy D	istributior	ıs				St	atistical	Comparis	sons ^k		
Aero and Eng	ineering													Your fi	irst-year stud	ents compar	ed with	
				UND		Plains Pub	olic	Carnegie C	lass	One UNI	D	UND	Plains	Public	Carnegi	e Class	One	UND
Item wording	Variable	_												Effect		Effect		Effect
or description 15. About how many he	name'		Response options	Count	% ing?	Count	%	Count	%	Count	%	Mean	Mean	size "	Mean	size ⁿ	Mean	size ⁿ
a. Preparing for class	tmprephrs	0 ma	0 hrs	0	ing. 0	3	0	10	0	0	0							
(studying, reading,	•••	3	1-5 hrs	6	10	60	7	275	7	13	7							
writing, doing	(Recoded version of tmprep created	8	6-10 hrs	7	12	159	18	625	16	24	14							
homework or lab work,	by NSSE. Values	13	11-15 hrs	16	27	168	19	814	21	33	19							
analyzing data,	are estimated	18	16-20 hrs	10	19	202	23	863	23	45	26	16.4	16.9	07	17.2	09	17.8	17
rehearsing, and other academic activities)	number of hours	23	21-25 hrs	12	20	128	15	566	15	27	15	2001	1012		17.2	.02	1/10	,
academic activities)	per week.)	28	26-30 hrs	4	7	78	9	304	8	12	7							
		33	More than 30 hrs	3	5	70	8	367	10	21	12							
		00	Total	59	100	868	100	3,824	100	175	100							
b. Participating in co-	tmcocurrhrs	0	0 hrs	16	27	192	22	1,027	27	43	25							
curricular activities	(Recoded version	3	1-5 hrs	22	37	318	37	1,408	37	65	37							
(organizations, campus	of tmcocurr	8	6-10 hrs	12	20	178	21	704	18	37	21							
publications, student	created by NSSE.	13	11-15 hrs	4	7	92	11	366	10	14	8							
government, fraternity or sorority,	Values are	18	16-20 hrs	2	3	38	4	172	5	9	5	5.9	6.3	05	5.6	.05	5.7	.03
intercollegiate or	estimated number	23	21-25 hrs	0	0	30	3	78	2	3	2							
intramural sports, etc.)	of hours per	28	26-30 hrs	0	0	9	1	24	1	1	1							
• • •	week.)	33	More than 30 hrs	3	5	6	1	39	1	2	1							
			Total	59	100	863	100	3,818	100	174	100							
c. Working for pay	tmworkonhrs	0	0 hrs	47	80	670	77	2,985	78	133	76							
on campus	(Recoded version	3	1-5 hrs	2	3	28	3	180	5	6	3							
	of tmworkon	8	6-10 hrs	2	3	59	7	291	8	9	5							
	created by NSSE.	13	11-15 hrs	5	8	58	7	184	5	15	9							
	Values are	18	16-20 hrs	3	5	30	3	133	3	9	5	2.4	2.7	06	2.3	.01	3.1	12
	estimated number	23	21-25 hrs	0	0	16	2	34	1	3	2							
	of hours per week.)	28	26-30 hrs	0	0	5	1	8	0	1	1							
	ween.j	33	More than 30 hrs	0	0	0	0	7	0	0	0							
			Total	59	100	866	100	3,822	100	176	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stu	idents ^a in					Frequen	cy D	istribution	S				Sta		Comparis			
Aero and Eng	ineering													Your fi	rst-year stude	ents compar	ed with	
_	_			UND		Plains Pub	lic	Carnegie Cl	ass	One UND)	UND	Plains	Public	Carnegie	e Class	One l	UND
Item wording or description	Variable name ^I	Values [*]	^a Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size ⁿ
d. Working for pay	tmworkoffhrs	0	0 hrs	42	71	630	73	2,999	78	132	75							
off campus	(Recoded version	3	1-5 hrs	1	2	38	4	129	3	9	5							
	of tmworkoff	8	6-10 hrs	2	3	43	5	143	4	10	6							
	created by NSSE.	13	11-15 hrs	7	12	48	6	163	4	10	6							
	Values are	18	16-20 hrs	3	5	47	5	179	5	10	6	4.8	4.1	.08	3.3	.20	3.2	.21
	estimated number	23	21-25 hrs	1	2	30	3	97	3	1	1							
	of hours per week.)	28	26-30 hrs	1	2	14	2	46	1	1	1							
	week.)	33	More than 30 hrs	2	3	16	2	67	2	3	2							
			Total	59	100	866	100	3,823	100	176	100							
Estimated number of	tmworkhrs																	
hours working for pay	(Continuous variable created by NSSE)											7.2	6.8	.03	5.6	.17	6.3	.09
e. Doing community	tmservicehrs	0	0 hrs	36	61	518	60	2,452	64	96	55							
service or volunteer	(Recoded version	3	1-5 hrs	19	32	254	29	1,050	27	69	39							
work	of tmservice	8	6-10 hrs	3	5	44	5	172	4	5	3							
	created by NSSE.	13	11-15 hrs	1	2	24	3	68	2	3	2							
	Values are	18	16-20 hrs	0	0	9	1	39	1	0	0	1.6	2.3	16	1.9	07	2.0	10
	estimated number	23	21-25 hrs	0	0	10	1	25	1	1	1							
	of hours per	28	26-30 hrs	0	0	3	0	7	0	0	0							
	week.)	33	More than 30 hrs	0	0	3	0	10	0	1	1							
			Total	59	100	865	100	3,823	100	175	100							
f. Relaxing and	tmrelaxhrs	0	0 hrs	1	2	16	2	56	1	2	1							
socializing (time with	(Recoded version	3	1-5 hrs	8	14	147	17	683	18	24	14							
friends, video games,	of tmrelax created	8	6-10 hrs	13	22	215	25	1,061	28	56	32							
TV or videos, keeping	by NSSE. Values	13	11-15 hrs	16	27	206	24	825	22	38	22							
up with friends online, etc.)	are estimated	18	16-20 hrs	11	19	140	16	579	15	23	13	13.8	13.2	.06	12.7	.13	13.5	.03
cit.)	number of hours	23	21-25 hrs	4	7	50	6	299	8	10	6							
	per week.)	28	26-30 hrs	2	3	27	3	102	3	4	2							
		33	More than 30 hrs	4	7	68	8	215	6	18	10							
			Total	59	100	869	100	3,820	100	175	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stu	idents ^a in					Freque	ncy D	istribution	S				St		Comparis			
Aero and Eng	ineering													Your fi	rst-year stud	ents compar	ed with	
				UND		Plains Pub	olic	Carnegie Cl	ass	One UNE)	UND	Plains	Public	Carnegi	e Class	One	UND
Item wording or description	Variable name ^I	Values [*]	Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
g. Providing care for	tmcarehrs	0	0 hrs	54	93	728	84	3,248	85	148	85							
dependents (children,	(Recoded version	3	1-5 hrs	2	3	61	7	272	7	14	8							
parents, etc.)	of tmcare created	8	6-10 hrs	0	0	18	2	120	3	6	3							
	by NSSE. Values	13	11-15 hrs	1	2	26	3	78	2	2	1							
	are estimated	18	16-20 hrs	0	0	16	2	51	1	3	2	.8	1.7	17	1.3	12	1.1	08
	number of hours per week.)	23	21-25 hrs	0	0	7	1	21	1	1	1							
	per week.)	28	26-30 hrs	1	2	0	0	6	0	0	0							
		33	More than 30 hrs	0	0	11	1	19	0	0	0							
			Total	58	100	867	100	3,815	100	174	100							
h. Commuting to campus	tmcommutehrs	0	0 hrs	12	20	319	37	1,745	46	69	39							
(driving, walking, etc.)	(Recoded version	3	1-5 hrs	35	59	373	43	1,381	36	73	42							
	of tmcommute	8	6-10 hrs	6	10	101	12	425	11	20	11							
	created by NSSE.	13	11-15 hrs	4	7	36	4	139	4	5	3							
	Values are	18	16-20 hrs	1	2	15	2	64	2	2	1	4.3	3.8	.10	3.3	.20	3.8	.09
	estimated number of hours per	23	21-25 hrs	0	0	14	2	31	1	0	0							
	week.)	28	26-30 hrs	0	0	3	0	16	0	2	1							
		33	More than 30 hrs	1	2	7	1	30	1	4	2							
			Total	59	100	868	100	3,831	100	175	100							
16. Of the time you spe	end preparing for	· class i	n a typical 7-day week	, about how	much	is on assigne	ed rea	ding?										
	reading	1	Very little	14	24	230	26	899	24	47	27							
		2	Some	26	44	378	44	1,789	47	91	52							
		3	About half	14	24	163	19	729	19	25	14	2.2	2.2	.04	2.2	.01	2.0	.19
		4	Most	3	5	81	9	305	8	9	5							,
		5	Almost all	2	3	16	2	100	3	3	2							
			Total	59	100	868	100	3,822	100	175	100							
								,										
	tmreadinghrs																	
of tmprephrs bas	able created by NSSE sed on reading, where t half=.50; Most=.75	e Very li										5.3	5.4	02	5.5	05	5.2	.01



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

First-Year St	udents ^a in					Frequer	ncy Di	stributior	IS				St	atistical	Compari	sons ^k		
Aero and En	gineering													Your fi	rst-year stud	ents compar	red with	
				UND		Plains Pub	olic	Carnegie C	ass	One UNI)	UND	Plains	Public	Carnegi	e Class	One	UND
Item wording or description	Variable name ^I	Values	^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
	tmreadinghrscol	1	0 hrs	0	0	3	0	10	0	0	0							
	(Collapsed version of tmreadinghrs	2	More than zero, up to 5 hrs	32	54	539	62	2,271	60	113	65							
	created by NSSE.)	3	More than 5, up to 10 hrs	20	34	217	25	1,060	28	44	25							
		4	More than 10, up to 15 hrs	5	8	50	6	241	6	7	4							
		5	More than 15, up to 20 hrs	1	2	32	4	124	3	5	3							
		6	More than 20, up to 25 hrs	1	2	23	3	79	2	2	1							
		7	More than 25 hrs	0	0	3	0	25	1	3	2							
			Total	59	100	867	100	3,810	100	174	100							
17. How much has yo	our experience at th	nis inst	itution contributed to	your knowled	lge, sl	ills, and per	sonal	developmen	t in th	e following	areas?							
a. Writing clearly and	pgwrite	1	Very little	9	16	123	14	500	13	27	15							
effectively		2	Some	21	36	341	39	1,373	36	78	45							
		3	Quite a bit	24	41	301	35	1,389	36	54	31	2.4	2.4	05	2.5	14	2.3	.07
		4	Very much	4	7	103	12	555	15	16	9							
			Total	58	100	868	100	3,817	100	175	100							
b. Speaking clearly and	pgspeak	1	Very little	11	19	132	15	656	17	32	18							
effectively		2	Some	25	42	340	39	1,477	39	71	41							
		3	Quite a bit	18	31	288	33	1,179	31	51	29	2.3	2.4	16	2.4	13	2.3	07
		4	Very much	5	8	108	12	513	13	21	12							
			Total	59	100	868	100	3,825	100	175	100							
c. Thinking critically and	d pgthink	1	Very little	3	5	28	3	156	4	7	4							
analytically		2	Some	14	24	155	18	758	20	29	17							
		3	Quite a bit	24	41	408	47	1,625	43	75	43	3.0	3.1	14	3.1	11	3.1	18
		4	Very much	18	31	278	32	1,282	34	64	37							
			Total	59	100	869	100	3,821	100	175	100							
d. Analyzing numerical	pganalyze	1	Very little	2	3	32	4	180	5	2	1							
and statistical		2	Some	15	25	158	18	811	21	44	25							
information		3	Quite a bit	23	39	377	44	1,543	40	71	41	3.0	3.1	11	3.0	04	3.1	07
		4	Very much	19	32	299	35	1,293	34	58	33							
			Total	59	100	866	100	3,827	100	175	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stud	st-Year Students ^a in ro and Engineering					Frequenc	cy Di	stribution	s				St		Compari			
Aero and Engi	neering													Your fi	rst-year stud	ents compar	ed with	
				UND		Plains Public	с	Carnegie Cla	ass	One UND)	UND	Plains	Public	Carnegi	e Class	One	UND
Item wording or description	Variable name ^I	Values ⁿ	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
e. Acquiring job- or work-	pgwork	1	Very little	4	7	95	11	475	12	19	11	Wean	Medil	5120	Weun	5126	Weun	3120
related knowledge and		2	Some	22	37	300	35	1,169	31	60	34							
skills		3	Quite a bit	23	39	313	36	1,394	36	68	39	2.7	2.6	.05	2.7	.01	2.6	.07
		4	Very much	10	17	160	18	788	21	28	16							
			Total	59	100	868	100	3,826	100	175	100							
f. Working effectively	pgothers	1	Very little	2	3	54	6	237	6	12	7							
with others		2	Some	18	31	250	29	1,025	27	46	26							
		3	Quite a bit	32	54	373	43	1,635	43	72	41	2.7	2.8	07	2.8	12	2.9	13
		4	Very much	7	12	190	22	924	24	45	26							
			Total	59	100	867	100	3,821	100	175	100							
g. Developing or	pgvalues	1	Very little	10	17	139	16	619	16	31	18							
clarifying a personal		2	Some	23	39	287	33	1,171	31	60	34							
code of values and ethics		3	Quite a bit	20	34	306	35	1,316	34	51	29	2.4	2.5	14	2.6	19	2.5	12
ennes		4	Very much	6	10	136	16	720	19	33	19							
			Total	59	100	868	100	3,826	100	175	100							
h. Understanding people	pgdiverse	1	Very little	13	22	115	13	637	17	27	15							
of other backgrounds		2	Some	21	36	298	34	1,296	34	60	34							
(economic, racial/ethnic, political,		3	Quite a bit	20	34	301	35	1,221	32	53	30	2.3	2.6 *	30	2.5	22	2.5	27
religious, nationality,		4	Very much	5	8	150	17	667	17	35	20		∇					
etc.)			Total	59	100	864	100	3,821	100	175	100							
i. Solving complex real-	pgprobsolve	1	Very little	7	12	73	8	395	10	24	14							
world problems		2	Some	21	36	296	34	1,197	31	64	37							
		3	Quite a bit	24	41	321	37	1,402	37	56	32	2.5	2.7	19	2.7	19	2.5	.00
		4	Very much	7	12	175	20	834	22	30	17							
			Total	59	100	865	100	3,828	100	174	100							
j. Being an informed and	pgcitizen	1	Very little	12	20	142	16	718	19	34	20							
active citizen		2	Some	24	41	357	41	1,414	37	73	42							
		3	Quite a bit	19	32	240	28	1,134	30	42	24	2.3	2.4	17	2.4	15	2.3	09
		4	Very much	4	7	128	15	559	15	25	14							
			Total	59	100	867	100	3,825	100	174	100							



Frequencies and Statistical Comparisons: Aero and Engineering

First-Year Stu	dents ^a in					Frequer	ncy D	istributior	IS				Sta	atistical	Comparis	ons ^k		
Aero and Engi	ineering													Your fi	irst-year stude	nts compai	red with	
				UND		Plains Pub	lic	Carnegie C	lass	One UNI	C	UND	Plains	Public	Carnegie	Class	One U	ND
Item wording or description	Variable name ^I	Values'	^a Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
18. How would you eva	luate your enti	re educa	tional experience at th	is institution	?													
	evalexp	1	Poor	1	2	19	2	80	2	2	1							
		2	Fair	13	22	101	12	509	13	18	10							
		3	Good	37	63	483	55	1,928	50	106	60	2.9	3.1 **	38	3.2 **	39	3.2 **	43
		4	Excellent	8	14	268	31	1,312	34	50	28		▼		▼		▼	
			Total	59	100	871	100	3,829	100	176	100							
19. If you could start ov	ver again, woul	d you go	to the same institution	you are nov	v atte	nding?												
	sameinst	1	Definitely no	2	3	18	2	109	3	1	1							
		2	Probably no	3	5	82	9	444	12	17	10							
		3	Probably yes	38	64	419	48	1,762	46	97	55	3.2	3.3	16	3.2	10	3.2	13
		4	Definitely yes	16	27	352	40	1,525	40	61	35							
			Total	59	100	871	100	3,840	100	176	100							
20. Do you intend to ret	turn to this inst	titution 1	next year? ^f															
	returnexp		No	1	2	25	3	116	3	3	2							
(Means indicate	the percentage wh		Yes	55	93	797	92	3,495	91	167	95	93%	92%	.06	91%	.08	95%	10
	responded "Yes.	")	Not sure	3	5	47	5	222	6	5	3							
			Total	59	100	869	100	3,833	100	175	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Freque	ncy D	istribution	S				Sta	atistical	Compariso	ons ^k		
Aero and Eng	ineering)	our seniors co	mpared wi	th	
				UND		Plains Pub	olic	Carnegie Cl	ass	One UNI)	UND	Plains	Public	Carnegie	Class	One U	IND
Item wording or description	Variable name ^I	Values	^a Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
1. During the current s							,-											
a. Asked questions or	askquest	1	•	9	6	60	4	177	4	12	4							
contributed to course		2	Sometimes	62	42	476	36	1,691	38	118	40							
discussions in other		3	Often	48	33	462	34	1,466	33	100	34	2.6	2.8 *	20	2.8 *	19	2.7	11
ways		4	Very often	27	18	342	26	1,156	26	62	21		∇		V			
			Total	146	100	1,340	100	4,490	100	292	100		·		•			
b. Prepared two or more	drafts	1	Never	23	15	341	25	1,282	29	81	28							
drafts of a paper or		2	Sometimes	61	41	520	39	1,694	38	110	38							
assignment before		3	Often	40	27	331	25	1,004	22	65	22	2.4	2.2 **	.25	2.2 ***	.29	2.2 **	.27
turning it in		4	Very often	25	17	150	11	512	11	35	12		Δ		Δ		Δ	
			Total	149	100	1,342	100	4,492	100	291	100							
c. Come to class without	unpreparedr	1	Very often	5	3	75	6	298	7	19	6							
completing readings or	(Reverse-coded	2	Often	19	13	220	16	761	17	60	20							
assignments	version of	3	Sometimes	83	56	705	52	2,431	54	147	50	3.1	3.0	.13	2.9 *	.20	2.9 *	.24
	unprepared	4	Never	42	28	345	26	1,016	23	67	23				Δ		Δ	
	created by NSSE.)		Total	149	100	1,345	100	4,506	100	293	100							
d. Attended an art exhibit,	attendart	1	Never	90	60	718	54	2,208	49	136	46							
play, or other arts		2	Sometimes	43	29	465	35	1,651	37	111	38							
performance (dance,		3	Often	12	8	115	9	449	10	32	11	1.5	1.6	11	1.7 *	20	1.7 *	26
music, etc.)		4	Very often	4	3	42	3	188	4	14	5				V		∇	
			Total	149	100	1,340	100	4,496	100	293	100							
e. Asked another student	CLaskhelp	1	Never	40	27	62	5	256	6	14	5							
to help you understand		2	Sometimes	41	28	456	34	1,322	29	91	31							
course material		3	Often	48	32	470	35	1,636	36	95	32	2.3	2.8 ***	59	2.9 ***	64	2.9 ***	64
		4	Very often	19	13	358	27	1,295	29	93	32		•		•		V	
			Total	148	100	1,346	100	4,509	100	293	100							
f. Explained course	CLexplain	1	Never	28	19	20	1	86	2	3	1							
material to one or more		2	Sometimes	54	36	343	26	1,068	24	79	27							
students		3	Often	44	30	568	42	1,863	41	122	42	2.4	3.0 ***	76	3.1 ***	81	3.0 ***	•72
		4	Very often	22	15	413	31	1,488	33	89	30		▼		V		•	
			Total	148	100	1,344	100	4,505	100	293	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequer	ncy D	istribution	s				Sta	tistical	Compariso	ons ^k		
Aero and Engi	neering													Ŷ	our seniors cor	npared wi	h	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNI	C	UND	Plains P	ublic	Carnegie	Class	One UI	ND
Item wording	Variable name ^I	Values	^m		~	<u> </u>	%	a 1		<u> </u>				Effect size "		Effect size "		Effect size ⁿ
g. Prepared for exams by	CLstudy	values 1	^m Response options Never	Count 53	% 36	Count 101	8	Count 415	% 9	Count 21	<u>%</u> 7	Mean	Mean	size	Mean	size	Mean	size
discussing or working	-	2	Sometimes	37	25	381	28	1,173	26	81	28							
through course material		3	Often	31	21	415	31	1,426	32	87	30	2.2	2.9 ***	69	2.9 ***	67	2.9 ***	69
with other students		4	Very often	28	19	445	33	1,491	33	103	35						▼	
			Total	149	100	1,342	100	4,505	100	292	100		•		•		•	
h. Worked with other	CLproject	1	Never	23	15	17	1	93	2	1	0							
students on course		2	Sometimes	40	27	240	18	692	15	51	17							
projects or assignments		3	Often	38	26	486	36	1,632	36	113	39	2.7	3.2 ***	61	3.3 ***	65	3.3 ***	59
		4	Very often	48	32	600	45	2,088	46	128	44		V		•		V	
			Total	149	100	1,343	100	4,505	100	293	100		·		•			
i. Given a course	present	1	Never	32	21	162	12	418	9	35	12							
presentation		2	Sometimes	53	36	545	41	1,604	36	106	36							
		3	Often	40	27	381	28	1,459	32	98	33	2.4	2.5 *	18	2.7 ***	33	2.6 *	22
		4	Very often	24	16	257	19	1,022	23	54	18		V		•		∇	
			Total	149	100	1,345	100	4,503	100	293	100							
2. During the current scl	hool vear, abo	out how	often have vou done th	e following?														
a. Combined ideas from	RIintegrate	1	Never	4	3	26	2	117	3	5	2							
different courses when		2	Sometimes	50	34	411	31	1,254	28	83	28							
completing assignments		3	Often	63	43	555	41	1,917	43	125	43	2.8	2.9	13	2.9	16	3.0	18
		4	Very often	30	20	350	26	1,219	27	79	27							
			Total	147	100	1,342	100	4,507	100	292	100							
b. Connected your	RIsocietal	1	Never	28	19	245	18	659	15	47	16							
learning to societal		2	Sometimes	72	48	644	48	2,081	46	143	49							
problems or issues		3	Often	37	25	318	24	1,256	28	72	25	2.2	2.3	04	2.4	16	2.3	09
		4	Very often	12	8	135	10	509	11	31	11							
			Total	149	100	1,342	100	4,505	100	293	100							
c. Included diverse	RIdiverse	1	Never	57	39	482	36	1,483	33	105	36							
perspectives (political,		2	Sometimes	57	39	582	43	2,007	45	127	44							
religious, racial/ethnic, gender, etc.) in course		3	Often	26	18	184	14	751	17	44	15	1.9	1.9	02	2.0	06	1.9	.01
discussions or		4	Very often	8	5	92	7	261	6	15	5							
assignments			Total	148	100	1,340	100	4,502	100	291	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequer	icy D	istribution	S				Sta		Comparis			
Aero and Engi	neering													Ŷ	'our seniors co	mpared wi	th	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNI	D	UND	Plains I	Public	Carnegie	Class	One U	ND
Item wording or description	Variable name ^I	Values [*]	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
d. Examined the strengths	RIownview	1	Never	18	12	142	11	419	9	27	9	Wean	weun	5120	Weun	3120	Weun	5120
and weaknesses of		2	Sometimes	63	42	526	39	1,731	39	120	41							
your own views on a		3	Often	49	33	500	37	1,697	38	103	35	2.5	2.5	07	2.6	13	2.5	10
topic or issue		4	Very often	19	13	173	13	648	14	42	14							
			Total	149	100	1,341	100	4,495	100	292	100							
e. Tried to better	RIperspect	1	Never	14	9	89	7	266	6	19	6							
understand someone		2	Sometimes	73	49	474	35	1,473	33	111	38							
else's views by		3	Often	44	30	545	41	1,912	42	119	41	2.4	2.7 ***	29	2.7 ***	36	2.6 *	24
imagining how an issue looks from their		4	Very often	18	12	233	17	849	19	44	15		V		•		∇	
perspective			Total	149	100	1,341	100	4,500	100	293	100							
f. Learned something that	RInewview	1	Never	6	4	61	5	150	3	11	4							
changed the way you		2	Sometimes	51	34	466	35	1,397	31	97	33							
understand an issue or concept		3	Often	63	42	569	43	1,982	44	123	42	2.8	2.7	.04	2.8	08	2.8	04
concept		4	Very often	29	19	241	18	963	21	61	21							
			Total	149	100	1,337	100	4,492	100	292	100							
g. Connected ideas from	RIconnect	1	Never	2	1	18	1	60	1	3	1							
your courses to your		2	Sometimes	34	23	288	22	894	20	55	19							
prior experiences and knowledge		3	Often	74	50	652	49	2,184	49	146	50	3.0	3.0	05	3.1	09	3.1	11
kilowieuge		4	Very often	39	26	378	28	1,351	30	87	30							
			Total	149	100	1,336	100	4,489	100	291	100							
3. During the current so	hool year, abo	ut how o	often have you done th	e following?														
a. Talked about career	SFcareer	1	Never	45	31	243	18	924	21	49	17							
plans with a faculty		2	Sometimes	66	45	532	40	1,851	41	119	41							
member		3	Often	23	16	343	26	1,073	24	74	25	2.0	2.4 ***	39	2.3 ***	31	2.4 ***	42
		4	Very often	13	9	218	16	642	14	50	17		V		▼		▼	
			Total	147	100	1,336	100	4,490	100	292	100							
b. Worked with a faculty	SFotherwork	1	Never	74	50	442	33	1,746	39	101	35							
member on activities		2	Sometimes	37	25	473	35	1,496	33	104	36							
other than coursework (committees, student		3	Often	22	15	259	19	778	17	47	16	1.9	2.1 **	25	2.0	15	2.1 *	23
groups, etc.)		4	Very often	15	10	163	12	474	11	40	14		∇				∇	
. /			Total	148	100	1,337	100	4,494	100	292	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Freque	ncy D	istributior	IS				Sta	tistical	Comparis	ons ^k		
Aero and Engi	neering													Y	our seniors co	mpared wi	th	
				UND		Plains Pub	lic	Carnegie C	ass	One UNI	C	UND	Plains F	Public	Carnegie	Class	One U	ND
Item wording	Variable													Effect		Effect		Effect
or description c. Discussed course	name ¹ SFdiscuss	Values'	ⁿ Response options Never	Count 52	% 35	Count 238	% 18	Count 961	% 21	Count 47	% 16	Mean	Mean	size "	Mean	size ⁿ	Mean	size ⁿ
topics, ideas, or	51 diseuss	2	Sometimes	51	34	623	47	1,986	44	127	44							
concepts with a faculty		2	Often	38	26	326	24	1,065	24	86	30	2.0	2.3 ***	31	2.2 **	24	2.3 ***	38
member outside of		4	Very often	8	5	149	11	474	11	31	11	2.0	2.3	51	▼	24		30
class		4	Total	8 149	100	1,336	100	4,486	100	291	100				v		•	
d. Discussed your	SFperform	1	Never	51	34	299	22	1,234	27	71	24							
academic performance	51 perioriti	2	Sometimes	69	46	635	47	2,072	46	135	46							
with a faculty member		2	Often	22	15	295	22	844	19	59	20	1.9	2.2 ***	30	2.1 *	19	2.1 **	28
		4	Very often	7	5	108	8	343	8	27	9	1.7	2.2	30	2.1 ·	19	2.1 ↔	20
		-	Total	, 149	100	1,337	100	4,493	100	292	100				v		v	
4. During the current scl	hool voor hou	much					100	1,195	100		100							
a. Memorizing course	memorize	1 1111	Very little	16	11	114	9	431	10	29	10							
material	memorile	2	Some	57	39	519	39	1,634	36	125	43							
		- 3	Quite a bit	55	37	473	35	1,691	38	102	35	2.5	2.6	09	2.6	09	2.5	.04
		4	Very much	20	14	232	17	740	16	36	12	2.0	2.0	09	2.0	02	2.5	.04
		-	Total	148	100	1,338	100	4,496	100	292	100							
b. Applying facts,	HOapply	1	Very little	2	1	26	2	97	2	4	1							
theories, or methods to		2	Some	28	19	192	14	635	14	42	14							
practical problems or		3	Quite a bit	60	41	555	42	1,884	42	133	46	3.2	3.2	08	3.2	08	3.2	05
new situations		4	Very much	58	39	560	42	1,878	42	112	38							
			Total	148	100	1,333	100	4,494	100	291	100							
c. Analyzing an idea,	HOanalyze	1	Very little	9	6	54	4	196	4	8	3							
experience, or line of		2	Some	31	21	313	23	940	21	69	24							
reasoning in depth by		3	Quite a bit	68	46	526	39	1,887	42	120	42	2.9	3.0	08	3.0	10	3.0	09
examining its parts		4	Very much	41	28	442	33	1,464	33	91	32							
			Total	149	100	1,335	100	4,487	100	288	100							
d. Evaluating a point of	HOevaluate	1	Very little	16	11	210	16	619	14	52	18							
view, decision, or		2	Some	56	38	521	39	1,651	37	117	40							
information source		3	Quite a bit	54	36	413	31	1,503	33	87	30	2.6	2.4	.14	2.5	.05	2.4 *	.23
		4	Very much	23	15	192	14	714	16	34	12						Δ	
			Total	149	100	1,336	100	4,487	100	290	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequer	ncy D	istributior	IS				St	atistical	Compari	sons ^k		
Aero and Engi	neering													}	our seniors c	ompared wi	ith	
				UND		Plains Pub	lic	Carnegie C	ass	One UNI	D	UND	Plains	Public	Carnegi	e Class	One l	JND
Item wording	Variable									_				Effect		Effect		Effect
e. Forming a new idea or	name' HOform	Values ⁿ 1	^a Response options Very little	Count 8	% 5	Count 95	% 7	Count 290	%	Count 14	<u>%</u> 5	Mean	Mean	size "	Mean	size "	Mean	size "
understanding from		2	Some	48	32	471	35	1,360	30	94	32							
various pieces of		3	Quite a bit	63	42	523	39	1,921	43	141	49	2.8	2.7	.10	2.8	.00	2.7	.06
information		4	Very much	30	20	246	18	919	20	41	14							
			Total	149	100	1,335	100	4,490	100	290	100							
5. During the current sci	hool year, to v	vhat exte	ent have your instructo	ors done the f	ollow	ing?												
a. Clearly explained	ETgoals	1	Very little	1	1	37	3	126	3	6	2							
course goals and		2	Some	33	22	327	24	1,030	23	83	29							
requirements		3	Quite a bit	69	46	617	46	2,109	47	139	48	3.1	3.0	.14	3.0	.11	2.9 *	.25
		4	Very much	46	31	356	27	1,221	27	62	21						Δ	
			Total	149	100	1,337	100	4,486	100	290	100							
b. Taught course sessions	ETorganize	1	Very little	5	3	54	4	166	4	7	2							
in an organized way		2	Some	34	23	334	25	1,050	23	76	26							
		3	Quite a bit	69	46	644	48	2,156	48	151	52	3.0	2.9	.11	2.9	.05	2.9	.14
		4	Very much	41	28	302	23	1,117	25	54	19							
			Total	149	100	1,334	100	4,489	100	288	100							
c. Used examples or	ETexample	1	Very little	2	1	40	3	147	3	5	2							
illustrations to explain		2	Some	29	20	303	23	864	19	65	22							
difficult points		3	Quite a bit	64	43	598	45	2,024	45	141	49	3.1	3.0	.16	3.1	.09	3.0	.16
		4	Very much	53	36	393	29	1,452	32	79	27							
			Total	148	100	1,334	100	4,487	100	290	100							
d. Provided feedback on a	ETdraftfb	1	Very little	22	15	196	15	715	16	42	15							
draft or work in		2	Some	55	37	529	40	1,730	39	121	42							
progress		3	Quite a bit	41	28	440	33	1,378	31	100	35	2.5	2.4	.12	2.4	.11	2.4	.20
		4	Very much	31	21	171	13	664	15	24	8							
			Total	149	100	1,336	100	4,487	100	287	100							
e. Provided prompt and	ETfeedback	1	Very little	12	8	120	9	399	9	20	7							
detailed feedback on		2	Some	64	43	515	39	1,564	35	117	40							
tests or completed assignments		3	Quite a bit	49	33	495	37	1,781	40	119	41	2.6	2.6	03	2.6	09	2.6	01
		4	Very much	23	16	204	15	744	17	33	11							
			Total	148	100	1,334	100	4,488	100	289	100							



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

Seniors ^a in						Freque	ncy D	istribution	S				St	atistical	Comparis	ons ^k		
Aero and Eng	ineering													}	our seniors co	ompared wi	th	
-	-			UND		Plains Pub	lic	Carnegie Cl	ass	One UNI	C	UND	Plains	Public	Carnegie	e Class	One U	ND
Item wording or description	Variable name ^I	Values [*]	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
6. During the current s	school year, abou	t how o	often have you done th	e following?														
a. Reached conclusions	QRconclude	1	Never	2	1	33	2	93	2	3	1							
based on your own		2	Sometimes	32	22	286	21	883	20	70	24							
analysis of numerical		3	Often	56	38	546	41	1,947	43	121	42	3.1	3.1	.08	3.1	.05	3.1	.10
information (numbers, graphs, statistics, etc.)		4	Very often	58	39	469	35	1,562	35	96	33							
graphs, statistics, etc.)			Total	148	100	1,334	100	4,485	100	290	100							
b. Used numerical	QRproblem	1	Never	20	14	222	17	825	18	61	21							
information to examine		2	Sometimes	47	32	463	35	1,451	32	98	34							
a real-world problem or	ſ	3	Often	41	28	364	27	1,297	29	87	30	2.7	2.5	.15	2.5 *	.17	2.4 **	.30
issue (unemployment, climate change, public		4	Very often	40	27	281	21	904	20	43	15				Δ		Δ	
health, etc.)			Total	148	100	1,330	100	4,477	100	289	100							
c. Evaluated what others	QRevaluate	1	Never	18	12	119	9	434	10	27	9							
have concluded from		2	Sometimes	52	35	489	37	1,631	36	113	39							
numerical information		3	Often	48	32	457	34	1,595	36	102	35	2.6	2.7	05	2.6	02	2.6	.02
		4	Very often	30	20	265	20	817	18	48	17							
			Total	148	100	1,330	100	4,477	100	290	100							
7. During the current s	school year, abou	t how 1	many papers, reports,	or other writ	ing tas	sks of the fo	llowin	g lengths ha	ve you	been assig	ned? ()	Include those not	yet comp	leted.)				
a. Up to 5 pages	wrshortnum	0	None	18	12	145	11	394	9	34	12		Ī					
	(Recoded version	1.5	1-2	31	21	311	23	1,005	22	62	21							
	of wrshort created	4	3-5	45	31	371	28	1,217	27	63	22							
	by NSSE. Values	8	6-10	24	16	251	19	883	20	65	22	6.1	6.3	02	6.8	10	6.9	12
	are estimated	13	11-15	12	8	116	9	442	10	31	11							
	number of papers, reports, etc.)	18	16-20	9	6	49	4	222	5	14	5							
	reports, etc.)	23	More than 20	7	5	87	7	306	7	21	7							
			Total	146	100	1,330	100	4,469	100	290	100							
b. Between 6 and 10	wrmednum	0	None	36	25	419	32	1,248	28	80	28							
pages	(Recoded version	1.5	1-2	47	32	408	31	1,404	31	97	33							
	of wrmed created	4	3-5	32	22	256	19	929	21	52	18							
	by NSSE. Values	8	6-10	19	13	149	11	514	12	40	14	3.9	3.4	.12	3.6	.07	3.6	.07
	are estimated	13	11-15	4	3	48	4	199	4	8	3							
	number of papers, reports, etc.)	18	16-20	3	2	14	1	70	2	7	2							
	reports, etc.)	23	More than 20	5	3	33	2	94	2	6	2							
			Total	146	100	1,327	100	4,458	100	290	100							



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

Seniors ^a in						Freque	ncy D	istributior	IS				Sta	atistical	Comparis	ons ^k		
Aero and Eng	gineering													Y	our seniors co	ompared wi	th	
				UND		Plains Pub	olic	Carnegie C	lass	One UNI	D	UND	Plains	Public	Carnegie	e Class	One l	JND
Item wording or description	Variable name ^I	Values	^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
c. 11 pages or more	wrlongnum	0	None	62	43	568	43	1,965	44	127	44	Wedn	Weam	3/20	Weath	3/20	Weath	3/20
	(Recoded version	1.5	1-2	49	34	421	32	1,344	30	96	33							
	of wrlong created	4	3-5	16	11	169	13	584	13	32	11							
	by NSSE. Values	8	6-10	7	5	93	7	306	7	15	5	2.6	2.5	.02	2.6	.01	2.5	.04
	are estimated	13	11-15	6	4	48	4	149	3	12	4							
	number of papers, reports, etc.)	18	16-20	1	1	13	1	54	1	4	1							
	,,	23	More than 20	4	3	21	2	80	2	4	1							
			Total	145	100	1,333	100	4,482	100	290	100							
Estimated number of assigned pages of	wrpages											88.8	83.5	.05	87.1	.02	86.3	.02
student writing.	(Continuous variab from wrshort, wrme estimated pages of	ed, and	0									00.0	63.3	.05	87.1	.02	80.5	.02
8. During the current	school year, abou	t how	often have you had disc	cussions with	peop	e from the f	ollowi	ng groups?										
a. People of a race or	DDrace	1	Never	23	16	83	6	277	6	17	6							
ethnicity other than		2	Sometimes	49	33	361	27	1,190	27	92	32							
your own		3	Often	40	27	415	31	1,316	29	98	34	2.6	3.0 ***	39	3.0 ***	42	2.9 **	28
		4	Very often	35	24	475	36	1,695	38	83	29		•		▼		∇	
			Total	147	100	1,334	100	4,478	100	290	100							
b. People from an	DDeconomic	1	Never	22	15	62	5	223	5	10	3							
economic background		2	Sometimes	47	32	346	26	1,017	23	77	27							
other than your own		3	Often	46	31	471	35	1,651	37	119	41	2.6	3.0 ***	43	3.0 ***	48	3.0 ***	40
		4	Very often	32	22	453	34	1,584	35	84	29		V		▼		▼	
			Total	147	100	1,332	100	4,475	100	290	100							
			Never	21	14	57	4	340	8	14	5							
c. People with religious	DDreligion	1	Hever					1 202	27	82	28							
beliefs other than your	0	1 2	Sometimes	51	35	338	25	1,202	21	02	20							·36
	0	-			35 28	338 456	25 34	1,202	31	102	28 35	2.6	3.0 ***	47	2.9 ***	34	2.9 ***	
beliefs other than your	0	2	Sometimes	51								2.6	3.0 *** ▼	47	2.9 *** ▼	34	2.9 *** •	
beliefs other than your own	0	2 3	Sometimes Often	51 41 34 147	28	456	34	1,383	31	102 91 289	35	2.6	3.0 ***	47		34		
beliefs other than your own	DDpolitical	2 3	Sometimes Often Very often	51 41 34	28 23	456 483	34 36	1,383 1,550 4,475 265	31 35	102 91	35 31	2.6	3.0 ***	47		34		
beliefs other than your ownd. People with political views other than your	DDpolitical	2 3 4	Sometimes Often Very often Total	51 41 34 147 22 50	28 23 100 15 34	456 483 1,334	34 36 100 5 26	1,383 1,550 4,475 265 1,240	31 35 100 6 28	102 91 289 14 84	35 31 100 5 29		3.0 ***	47		34		
beliefs other than your own d. People with political	DDpolitical	2 3 4	Sometimes Often Very often Total Never	51 41 34 147 22 50 43	28 23 100 15 34 30	456 483 1,334 68 351 455	34 36 100 5 26 34	1,383 1,550 4,475 265 1,240 1,525	31 35 100 6 28 34	102 91 289 14 84 112	35 31 100 5 29 39	2.6	3.0 *** ▼ 3.0 ***					*36
beliefs other than your own d. People with political views other than your	DDpolitical	2 3 4 1 2	Sometimes Often Very often Total Never Sometimes	51 41 34 147 22 50	28 23 100 15 34	456 483 1,334 68 351	34 36 100 5 26	1,383 1,550 4,475 265 1,240	31 35 100 6 28	102 91 289 14 84	35 31 100 5 29		•		•		▼	*36



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Freque	ncy Di	istributior	ıs				Sta	tistical	Compariso	ons ^k		
Aero and Engi	neering													Ŷ	our seniors co	mpared wi	ith	
				UND		Plains Put	olic	Carnegie C	lass	One UNI	D	UND	Plains P	ublic	Carnegie	Class	One L	JND
Item wording or description	Variable name ^I	Values'	^a Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size ⁿ
9. During the current so	chool year, abo	ut how o	often have you done th	e following?														
a. Identified key	LSreading	1	Never	7	5	96	7	258	6	17	6							
information from		2	Sometimes	40	27	428	32	1,385	31	99	34							
reading assignments		3	Often	65	44	563	42	1,914	43	117	41	2.9	2.7 *	.18	2.8	.11	2.7	.17
		4	Very often	35	24	249	19	915	20	55	19		Δ					
			Total	147	100	1,336	100	4,472	100	288	100							
b. Reviewed your notes	LSnotes	1	Never	6	4	123	9	369	8	24	8							
after class		2	Sometimes	47	32	493	37	1,590	36	107	37							
		3	Often	53	36	439	33	1,480	33	99	34	2.9	2.7 **	.25	2.7 *	.18	2.7 *	.24
		4	Very often	41	28	276	21	1,036	23	59	20		Δ		Δ		Δ	
			Total	147	100	1,331	100	4,475	100	289	100							
c. Summarized what you	LSsummary	1	Never	11	7	140	10	470	10	27	9							
learned in class or from		2	Sometimes	59	40	515	39	1,659	37	123	43							
course materials		3	Often	41	28	434	33	1,554	35	93	32	2.7	2.6	.12	2.6	.11	2.5	.17
		4	Very often	36	24	246	18	795	18	46	16							
			Total	147	100	1,335	100	4,478	100	289	100							
10. During the current	school year, to	what ex	tent have your courses	s challenged y	ou to	lo your bes	t work	?										
	challenge	1	Not at all	0	0	14	1	50	1	2	1							
		2		1	1	26	2	95	2	3	1							
		3		3	2	67	5	208	5	12	4							
		4		10	7	160	12	499	11	28	10	5.9	5.4 ***	.35	5.4 ***	.32	5.6 *	.25
		5		37	25	382	29	1,302	29	82	28						Δ	
		6		45	31	387	29	1,248	28	89	31							
		7	Very much	50	34	297	22	1,070	24	72	25							
			Total	146	100	1,333	100	4,472	100	288	100							
11. Which of the follow	ing have you d	one or d	o you plan to do befor	e you gradua	te?°													
a. Participate in an	intern		Have not decided	16	11	80	6	208	5	21	7							
internship, co-op, field	(Means indicate		Do not plan to do	25	17	133	10	438	10	30	10							
experience, student	the percentage		Plan to do	29	20	353	26	1,039	23	72	25	52%	58%	10	62% *	20	57%	10
teaching, or clinical placement	who responded		Done or in progress	77	52	767	58	2,797	62	165	57				V			
Precenteria	"Done or in progress.")		Total	147	100	1,333	100	4,482	100	288	100				*			



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

Seniors ^a in					Frequer	ncy D	stribution	S				Sta		Compariso			
Aero and Engi	neering												Ŷ	our seniors co	npared wi	ith	
			UND		Plains Pub	olic	Carnegie Cl	ass	One UNI	D	UND	Plains F	Public	Carnegie	Class	One U	JND
Item wording or description	Variable name ^I	Values ^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
b. Hold a formal	leader	Have not decided	21	14	116	9	383	9	32	11	Weun	Weun	3120	Weun	3120	Meun	3120
leadership role in a	(Means indicate	Do not plan to do	65	45	452	34	1,616	36	102	35							
student organization or	the percentage	Plan to do	12	8	112	8	366	8	29	10	32%	49% ***	34	47% ***	30	43% *	23
group	who responded	Done or in progress	47	32	652	49	2,110	47	125	43		•		•		V	
	"Done or in progress.")	Total	145	100	1,332	100	4,475	100	288	100							
c. Participate in a learning	learncom	Have not decided	20	14	143	11	505	11	35	12							
community or some	(Means indicate	Do not plan to do	83	56	736	55	2,456	55	138	48							
other formal program	the percentage	Plan to do	15	10	128	10	366	8	25	9	20%	24%	11	26%	14	31% **	27
where groups of students take two or	who responded	Done or in progress	29	20	325	24	1,141	26	91	31						∇	
more classes together	"Done or in progress.")	Total	147	100	1,332	100	4,468	100	289	100							
d. Participate in a study	abroad	Have not decided	14	10	102	8	374	8	30	10							
abroad program	(Means indicate	Do not plan to do	116	79	959	72	3,203	72	196	68							
	the percentage	Plan to do	8	5	90	7	267	6	24	8	6%	14% *	25	14% **	27	13% *	24
	who responded	Done or in progress	9	6	180	14	625	14	38	13		▽		▽		∇	
	"Done or in progress.")	Total	147	100	1,331	100	4,469	100	288	100		· ·		·		·	
e. Work with a faculty	research	Have not decided	26	18	174	13	620	14	31	11							
member on a research	(Means indicate	Do not plan to do	61	41	527	40	1,739	39	104	36							
project	the percentage	Plan to do	22	15	218	16	657	15	57	20	26%	31%	11	33%	15	34%	17
	who responded	Done or in progress	38	26	410	31	1,461	33	97	34							
	"Done or in progress.")	Total	147	100	1,329	100	4,477	100	289	100							
f. Complete a culminating	capstone	Have not decided	14	10	61	5	172	4	7	2							
senior experience	(Means indicate	Do not plan to do	15	10	97	7	288	6	10	3							
(capstone course, senior project or thesis,	the percentage	Plan to do	59	40	480	36	1,403	31	124	43	40%	52% **	24	58% ***	37	51% *	22
comprehensive exam,	who responded	Done or in progress	59	40	695	52	2,604	58	146	51		V		V		∇	
portfolio, etc.)	"Done or in progress.")	Total	147	100	1,333	100	4,467	100	287	100							
12. About how many of	your courses at	this institution have inclu	led a communit	y-base	ed project (s	ervice	learning)?										
·	servcourse	1 None	79	54	706	53	2,360	53	144	50							
		2 Some	53	36	528	40	1,842	41	127	44							
		3 Most	12	8	79	6	215	5	12	4	1.6	1.6	.02	1.5	.04	1.6	01
		4 All	2	1	18	1	56	1	5	2							
		Total	146	100	1,331	100	4,473	100	288	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Freque	ncy D	istributior	าร				St	atistical	Compari	sons ^k		
Aero and Eng	ineering												1	our seniors (compared wi	th		
				UND		Plains Pub	olic	Carnegie C	lass	One UNI	D	UND	Plains	Public	Carnegi	e Class	One	UND
Item wording or description	Variable name ^I	Values'	<i>m</i> Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
13. Indicate the quality	y of your interac	ctions w	ith the following people	e at your inst	itutio	n.												
a. Students	QIstudent		Poor	4	3	11	1	49	1	2	1							
		2		3	2	16	1	62	1	2	1							
		3		5	3	46	3	179	4	11	4							
		4		11	7	119	9	436	10	26	9							
		5		35	24	322	24	1,183	26	76	26	5.4	5.7 *	19	5.6	11	5.6	15
		6		41	28	420	32	1,303	29	96	33		∇					
		7	Excellent	31	21	394	30	1,235	28	73	25							
		_	Not applicable	17	12	5	0	32	1	3	1							
			Total	147	100	1,333	100	4,479	100	289	100							
b. Academic advisors	QIadvisor	1	Poor	12	8	61	5	278	6	13	4							
		2		12	8	79	6	277	6	13	4							
		3		7	5	130	10	418	9	26	9							
		4		23	16	179	13	620	14	37	13							
		5		26	18	289	22	898	20	68	24	4.9	5.0	08	4.9	03	5.0	09
		6		24	16	242	18	817	18	71	25							
		7	Excellent	39	27	345	26	1,099	25	59	20							
		_	Not applicable	4	3	7	1	70	2	2	1							
			Total	147	100	1,332	100	4,477	100	289	100							
c. Faculty	QIfaculty	1	Poor	4	3	16	1	88	2	4	1							
		2		8	5	38	3	140	3	5	2							
		3		8	5	81	6	323	7	21	7							
		4		21	14	239	18	680	15	38	13							
		5		39	27	380	29	1,268	28	108	37	5.1	5.2	06	5.2	04	5.1	04
		6		37	25	332	25	1,150	26	69	24							
		7	Excellent	27	18	240	18	812	18	42	15							
		_	Not applicable	3	2	5	0	22	0	2	1							
			Total	147	100	1,331	100	4,483	100	289	100							



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

Seniors ^a in						Frequer	icy Di	stribution	S				Sta	atistical	Compariso	ons ^k		
Aero and Engi	neering													}	our seniors cor	npared wi	th	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UND)	UND	Plains	Public	Carnegie	Class	One U	JND
Item wording or description	Variable name ^I	Values [*]	^a Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
d. Student services staff	QIstaff	1	Poor	6	4	48	4	237	5	7	2							
(career services,		2		5	3	47	4	220	5	9	3							
student activities,		3		11	7	93	7	399	9	18	6							
housing, etc.)		4		15	10	205	15	692	15	42	15							
		5		27	18	297	22	946	21	60	21	5.0	5.0	.03	4.7	.16	5.1	08
		6		24	16	258	19	763	17	68	24							
		7	Excellent	27	18	215	16	673	15	50	17							
		_	Not applicable	32	22	169	13	550	12	35	12							
			Total	147	100	1,332	100	4,480	100	289	100							
e. Other administrative	QIadmin	1	Poor	5	3	48	4	251	6	7	2							
staff and offices		2		6	4	56	4	240	5	11	4							
(registrar, financial aid,		3		5	3	93	7	381	9	23	8							
etc.)		4		23	16	200	15	773	17	49	17							
		5		32	22	315	24	1,029	23	72	25	5.1	5.0	.09	4.8 **	.23	5.0	.10
		6		28	19	302	23	824	18	72	25				Δ			
		7	Excellent	31	21	226	17	712	16	41	14							
		_	Not applicable	16	11	92	7	264	6	14	5							
			Total	146	100	1,332	100	4,474	100	289	100							
14. How much does you	r institution em	phasize	e the following?															
a. Spending significant	empstudy	1	Very little	0	0	17	1	72	2	1	0							
amounts of time		2	Some	32	22	242	18	655	15	63	22							
studying and on academic work		3	Quite a bit	63	43	656	49	1,903	43	130	45	3.1	3.1	.04	3.2	13	3.1	.04
academic work		4	Very much	52	35	416	31	1,847	41	95	33							
			Total	147	100	1,331	100	4,477	100	289	100							
b. Providing support to	SEacademic	1	Very little	12	8	67	5	249	6	21	7							
help students succeed		2	Some	50	34	354	27	1,208	27	81	28							
academically		3	Quite a bit	60	41	610	46	1,999	45	123	43	2.7	2.9 **	24	2.8 **	22	2.8	16
		4	Very much	24	16	300	23	1,012	23	63	22		∇		∇			
			Total	146	100	1,331	100	4,468	100	288	100							
c. Using learning support	SElearnsup	1	Very little	19	13	131	10	406	9	25	9							
services (tutoring		2	Some	55	37	396	30	1,310	29	80	28							
services, writing center, etc.)		3	Quite a bit	53	36	515	39	1,733	39	122	42	2.5	2.7 **	24	2.8 ***	28	2.8 **	29
conter, etc.)		4	Very much	20	14	287	22	1,027	23	62	21		∇		∇		∇	
			Total	147	100	1,329	100	4,476	100	289	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequer	ncy D	istribution	S				Sta	atistical	Comparis	ons ^k		
Aero and Engi	neering													}	our seniors co	mpared wi	th	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNE)	UND	Plains I	Public	Carnegie	Class	One U	ND
Item wording or description	Variable name ^I	Values'	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size ⁿ	Mean	Effect size ⁿ
d. Encouraging contact among students from	SEdiverse	1	Very little	26	18 40	209	16	929	21 36	50	17	Weun	Weun	5120	Weun	5120	Wean	5128
different backgrounds		2	Some Quite a bit	59 43	40 29	500 441	38 33	1,626 1,252	28	127 75	44 26	2.4	2.4	09	2.4	01	2.3	.02
(social, racial/ethnic,		4	Very much	43	12	183	14	663	20 15	37	13	2.7	2.4	09	2.4	01	2.5	.02
religious, etc.)		-	Total	146	100	1,333	100	4,470	100	289	100							
e. Providing opportunities	SEsocial	1	Very little	18	12	114	9	443	10	22	8							
to be involved socially		2	Some	58	39	377	28	1,368	31	78	27							
		3	Quite a bit	51	35	589	44	1,778	40	132	46	2.5	2.7 **	27	2.7 **	22	2.8 **	32
		4	Very much	20	14	249	19	886	20	57	20		V		∇		•	
			Total	147	100	1,329	100	4,475	100	289	100							
f. Providing support for	SEwellness	1	Very little	15	10	142	11	595	13	27	9							
your overall well-being		2	Some	54	37	390	29	1,346	30	74	26							
(recreation, health care, counseling, etc.)		3	Quite a bit	52	36	521	39	1,659	37	126	44	2.6	2.7	12	2.6	03	2.8	19
counsening, etc.)		4	Very much	25	17	277	21	867	19	61	21							
			Total	146	100	1,330	100	4,467	100	288	100							
g. Helping you manage	SEnonacad	1	Very little	53	36	447	34	1,700	38	95	33							
your non-academic responsibilities (work,		2	Some	52	35	537	40	1,665	37	122	42							
family, etc.)		3	Quite a bit	33	22	271	20	789	18	58	20	2.0	2.0	.01	1.9	.06	2.0	.02
		4	Very much	9	6	75	6	312	7	14	5							
			Total	147	100	1,330	100	4,466	100	289	100							
h. Attending campus	SEactivities	1	Very little	24	16	192	14	681	15	36	13							
activities and events (performing arts,		2	Some	47	32	486	36	1,612	36	105	36							
athletic events, etc.)		3	Quite a bit	55	38	459	34	1,487	33	106	37	2.5	2.5	01	2.5	.00	2.5	05
		4	Very much	20	14	195	15	689	15	41	14							
· · · · · · · · · · · · · · · · · · ·			Total	146	100	1,332	100	4,469	100	288	100							
 Attending events that address important 	SEevents	1	Very little	40	27	324	24	1,242	28	66	23							
social, economic, or		2	Some	55	38	591	44	1,895	42	138	48	2.2						
political issues		3	Quite a bit	38	26	325	24	994	22	65	23	2.2	2.1	.03	2.1	.08	2.1	.04
		4	Very much Total	13 146	9 100	90 1,330	7 100	333 4,464	7 100	19 288	7 100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequer	ncy D	istributior	IS				Sta	tistical	Compariso	ons ^k		
Aero and Eng	ineering)	our seniors co	npared wi	th	
				UND		Plains Pub	olic	Carnegie C	ass	One UNI	D	UND	Plains F	Public	Carnegie	Class	One L	JND
Item wording	Variable													Effect		Effect		Effect
or description 15. About how many h	name'		Response options	Count	% ing?	Count	%	Count	%	Count	%	Mean	Mean	size "	Mean	size "	Mean	size ⁿ
a. Preparing for class	tmprephrs	1 m a t 0	0 hrs		1 ng	7	1	15	0	1	0							
(studying, reading,	•••	3	1-5 hrs	7	5	107	8	383	9	16	6							
writing, doing	(Recoded version	8	6-10 hrs	27	18	234	18	721	16	39	13							
homework or lab work,	of tmprep created by NSSE. Values	13	11-15 hrs	27	18	234 248	18	721	10	39	13							
analyzing data,	are estimated	13	16-20 hrs	28 25	19	248	20	876	20	58 60	21	18.6	17.7	.10	18.1	.05	19.9	15
rehearsing, and other	number of hours	23	21-25 hrs	19	13	167	13	634	20 14	50	17	10.0	17.7	.10	10.1	.05	19.9	15
academic activities)	per week.)	23 28	26-30 hrs	19	11	107	8	396	9	30 26	9							
		28 33	More than 30 hrs	24	16	107	0 15	596 684	15	20 59	20							
		55	Total	24 147	100	1,328	100	4,470	100	39 289	100							
b. Participating in co-	tmcocurrhrs	0	0 hrs	74	51	363	27	1,432	32	289	30							
curricular activities		3	1-5 hrs	39	27	455	34	1,452	32	103	30 36							
(organizations, campus	(Recoded version	8	6-10 hrs	15	10	224	17	698	16	45	30 16							
publications, student	of tmcocurr created by NSSE.	0 13		13	10	137	17	388	9		9							
government, fraternity	Values are	15	11-15 hrs 16-20 hrs		3	137		224	5	25	6	3.9	6.2 ***	33	5.8 ***	27	5.7 **	27
or sorority,	estimated number	23	21-25 hrs	6	4	45	6 3	121	3	16 8	3	5.7	0.2	35		27		27
intercollegiate or intramural sports, etc.)	of hours per	25 28	21-23 hrs	5	2	43	5	55	5	8 3	5 1		•		∇		∇	
initialiural sports, etc.)	week.)	28 33	More than 30 hrs	1	1	11	1	80	2	3	1							
		55	Total	146	100	1,331	100	4,462	100	289	100							
c. Working for pay	tmworkonhrs	0	0 hrs	140	69	862	65	2,758	62	186	64							
on campus		3	1-5 hrs	7	5	802 71	5	2,738	62 7	21	7							
on campus	(Recoded version	8	6-10 hrs	19	13	130	10	532	12	21 28	10							
- (Rect of	of tmworkon created by NSSE.							332 374										
	Created by NSSE. Values are	13	11-15 hrs 16-20 hrs	8	5	111	8 7	374 337	8	18	6	3.7	4.6	12	4.4	11	4.4	09
	estimated number	18		6	4	98			8	24	8	5.1	4.0	12	4.4	11	4.4	09
	of hours per	23	21-25 hrs 26-30 hrs	3	2	31 15	2	79 26	2	8 2	3							
	week.)	28		2	1		1		1		1							
		33	More than 30 hrs	1.47	100	15	1	35	1	2	1							
			Total	147	100	1,333	100	4,470	100	289	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequer	ncy D	istribution	s				Sta	tistical	Compariso	ons ^k		
Aero and Eng	ineering													}	our seniors co	mpared wi	th	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UND	,	UND	Plains P	ublic	Carnegie	Class	One UI	ND
Item wording or description d. Working for pay	Variable name ' tmworkoffhrs	Values [*]	ⁿ Response options 0 hrs	Count 61	% 41	Count 716	% 54	Count 2,476	% 55	Count 180	% 62	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
estimated number of hours working for pay	(Recoded version of tmworkoff created by NSSE. Values are estimated number of hours per week.) tmworkhrs (Continuous variable created	3 8 13 18 23 28 33	1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs Total	5 5 11 7 9 3 46 147	3 3 7 5 6 2 31 100	61 84 107 141 84 47 90 1,330	5 6 8 11 6 4 7 100	232 280 299 377 239 159 407 4,469	5 6 7 8 5 4 9 100	13 21 18 27 15 7 8 289	4 7 6 9 5 2 3 100	14.5	8.3 ***	.55	8.3 ***	.54 .45	6.0 *** 10.3 ***	
	by NSSE)																	
e. Doing community service or volunteer work	tmservicehrs (Recoded version of tmservice created by NSSE. Values are estimated number of hours per week.)	0 3 8 13 18 23 28 33	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs Total	72 55 10 3 2 3 2 0 147	49 37 7 2 1 2 1 0 100	776 417 57 31 30 14 1 7 1,333	58 31 4 2 2 1 0 1 100	2,628 1,425 213 102 47 31 5 21 4,472	59 32 5 2 1 1 0 0 100	190 82 7 4 2 2 0 2 289	66 28 2 1 1 1 0 1 100	3.0	2.4	.12	2.2 * ▲	.20	1.7 ** ▲	.28
f. Relaxing and socializing (time with friends, video games, TV or videos, keeping up with friends online, etc.)	tmrelaxhrs (Recoded version of tmrelax created by NSSE. Values are estimated number of hours per week.)	0 3 8 13 18 23 28 33	0 hrs 1-5 hrs 6-10 hrs 11-15 hrs 16-20 hrs 21-25 hrs 26-30 hrs More than 30 hrs Total	5 53 38 22 13 7 4 5	3 36 26 15 9 5 3 3 100	27 270 383 285 203 65 25 73 1,331	2 20 29 21 15 5 2 5 100	125 1,076 1,231 910 536 238 123 228 4,467	3 24 28 20 12 5 3 5 100	6 60 73 58 53 14 14 14 10 288	2 21 25 20 18 5 5 3 100	9.7	11.9 ** ▼	28	11.4 * ▼	21	12.2 **	32



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequer	ncy D	istribution	S				Sta		Compariso			
Aero and Eng	ineering													Ŷ	'our seniors co	mpared wit	th	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNE)	UND	Plains F	Public	Carnegie	Class	One U	ND
Item wording or description	Variable name ^I	Values'	ⁿ Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
g. Providing care for dependents (children,	tmcarehrs	0	0 hrs 1-5 hrs	80 13	54 9	1,050	79 79 7	3,397 381	76 9	252	87 3	mean	Micun	5120	mean	5120	mean	
parents, etc.)	(Recoded version of tmcare created by NSSE. Values are estimated	8 13 18	6-10 hrs 11-15 hrs 16-20 hrs	4 10 13	3 7 9	, -	3 2 2	184 118 98	4 3 2	8 5 0	3 2 0	8.4	3.1 ***	.64	3.3 ***	.62	2.0 ***	.73
	number of hours per week.)	23 28 33	21-25 hrs 26-30 hrs More than 30 hrs Total	8 2 17 147	5 1 12 100		1 0 4 100	57 28 206 4,469	1 1 5 100	5 2 8 289	2 1 3 100							
h. Commuting to campus (driving, walking, etc.)	tmcommutehrs (Recoded version of tmcommute	0 3 8	0 hrs 1-5 hrs 6-10 hrs	61 63 8	41 43 5	112 851	8 64 17	674 2,570 770	15 57 17	38 196 33	13 68 11							
	created by NSSE. Values are estimated number of hours per	13 18 23	11-15 hrs 16-20 hrs 21-25 hrs	8 3 3	5 2 2	72 32 17	5 2 1	231 92 42	5 2 1	11 6 2	4 2 1	3.5	5.3 *** ▼	32	5.0 ** ▼	27	4.2	15
	week.)	28 33	26-30 hrs More than 30 hrs Total	0 1 147	0 1 100	5 20 1,332	0 2 100	19 73 4,471	0 2 100	0 2 288	0 1 100							
16. Of the time you spe	end preparing for	class i	in a typical 7-day week	k, about how	much	is on assigne	ed rea	ding?										
	reading	1 2 3 4 5	Very little Some About half Most Almost all Total	38 58 29 16 5 146	26 40 20 11 3 100	495 211 85	38 37 16 6 2 100	1,563 1,722 758 312 116 4,471	35 39 17 7 3 100	116 117 37 14 4 288	40 41 13 5 1 100	2.3	2.0 ** ▲	.28	2.0 ** ▲	.22	1.9 ***	.41
	tmreadinghrs																	
of tmprephrs bas	able created by NSSE red on reading, where t half=.50; Most=.75	e Very li										6.3	5.0 *	.25	5.4 *	.17	5.1 *	.23



Frequencies and Statistical Comparisons: Aero and Engineering

University of North Dakota

Seniors ^a in						Frequer	ncy Di	stributior	IS				St	atistical	Comparis	sons ^k		
Aero and Eng	gineering													}	our seniors co	ompared wi	ith	
				UND		Plains Pub	lic	Carnegie C	lass	One UNI	D	UND	Plains	Public	Carnegie	e Class	One	UND
Item wording or description	Variable name ^I	Values	^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size ⁿ
	tmreadinghrscol	1	0 hrs	1	1	7	1	15	0	1	0	mean	Wicun	5120	mean	5120	Wiedn	5120
	(Collapsed version of tmreadinghrs	2	More than zero, up to 5 hrs	80	55	859	65	2,785	62	180	63							
	created by NSSE.)	3	More than 5, up to 10 hrs	38	26	315	24	1,087	24	81	28							
		4	More than 10, up to 15 hrs	14	10	67	5	266	6	12	4							
		5	More than 15, up to 20 hrs	7	5	42	3	172	4	7	2							
		6	More than 20, up to 25 hrs	4	3	20	2	89	2	4	1							
		7		2	1	11	1	45	1	3	1							
			Total	146	100	1,321	100	4,459	100	288	100							
	ur experience at th	is inst	titution contributed to	your knowled	lge, sl	ills, and per	sonal	developmen	t in th	e following	areas?							
a. Writing clearly and	pgwrite	1	Very little	11	8	138	10	495	11	32	11							
effectively		2		49	34	422	32	1,345	30	83	29							
		3	Quite a bit	58	40	515	39	1,695	38	116	40	2.7	2.7	.04	2.7	.02	2.7	.01
		4	Very much	28	19	258	19	933	21	58	20							
			Total	146	100	1,333	100	4,468	100	289	100							
 b. Speaking clearly and effectively 	pgspeak	1	Very little	18	12	166	12	511	11	32	11							
enectively		2	Some	50	34	429	32	1,354	30	84	29	•						
		3	Quite a bit	51	35	478	36	1,661	37	116	40	2.6	2.6	02	2.7	08	2.7	09
		4	Very much	28	19	258	19	943	21	57	20							
c. Thinking critically and	d pgthink	1	Total Very little	147	100	1,331	100	4,469	100	289	100							
analytically	и рушик	2	Some	2 30	21	39 167	13	498	11	31	11							
		2	Quite a bit	30 49	34	449	34	1,612	36	102	35	3.2	3.3	14	3.3 *	17	2.2	17
		4	-	49 64	44	674	51	2,245	50 50	102	51	3.4	5.5	14	5.5 ↔	17	3.3	17
		4	Total	145	100	1,329	100	4,470	100	289	100				v			
d. Analyzing numerical	pganalyze	1	Very little	6	4	31	2	75	2	8	3							
and statistical	r 0 j	2	Some	16	11	155	12	477	11	35	12							
information		3	Quite a bit	47	32	382	29	1,442	32	84	29	3.3	3.4	09	3.4	10	3.4	05
		4	Very much	78	53	765	57	2,482	55	162	56							
			Total	147	100	1,333	100	4,476	100	289	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Frequen	cy Di	istribution	s				Sta	atistical	Comparis	ons ^k		
Aero and Engi	neering													Ŷ	'our seniors co	mpared wit	th	
				UND		Plains Publ	ic	Carnegie Cl	ass	One UND)	UND	Plains F	Public	Carnegie	Class	One U	IND
Item wording or description	Variable name ^I	Values'	^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size "
e. Acquiring job- or work-	pgwork	1	Very little	11	7	103	8	346	8	29	10		mean	5120	mean	5,20	mean	
related knowledge and		2	Some	41	28	304	23	1,040	23	72	25							
skills		3	Quite a bit	47	32	488	37	1,557	35	104	36	2.9	2.9	05	3.0	06	2.8	.06
		4	Very much	48	33	433	33	1,528	34	84	29							
			Total	147	100	1,328	100	4,471	100	289	100							
f. Working effectively	pgothers	1	Very little	17	12	50	4	191	4	11	4							
with others		2	Some	34	23	294	22	936	21	71	25							
		3	Quite a bit	58	39	557	42	1,786	40	129	45	2.8	3.0 **	27	3.1 **	30	2.9	18
		4	Very much	38	26	431	32	1,551	35	78	27		∇		∇			
			Total	147	100	1,332	100	4,464	100	289	100							
g. Developing or	pgvalues	1	Very little	24	16	228	17	694	16	51	18							
clarifying a personal		2	Some	46	32	422	32	1,356	30	99	34							
code of values and ethics		3	Quite a bit	47	32	416	31	1,454	33	97	34	2.6	2.5	.02	2.6	05	2.4	.12
ethies		4	Very much	29	20	265	20	965	22	41	14							
			Total	146	100	1,331	100	4,469	100	288	100							
h. Understanding people	pgdiverse	1	Very little	31	21	215	16	918	21	49	17							
of other backgrounds		2	Some	54	37	482	36	1,556	35	124	43							
(economic, racial/ethnic, political,		3	Quite a bit	35	24	406	31	1,234	28	79	27	2.4	2.5	09	2.4	02	2.4	.04
religious, nationality,		4	Very much	27	18	226	17	761	17	37	13							
etc.)			Total	147	100	1,329	100	4,469	100	289	100							
i. Solving complex real-	pgprobsolve	1	Very little	9	6	85	6	318	7	18	6							
world problems		2	Some	42	29	315	24	1,105	25	79	27							
		3	Quite a bit	50	34	488	37	1,582	35	114	39	2.9	3.0	08	2.9	04	2.9	.02
		4	Very much	45	31	443	33	1,459	33	79	27							
			Total	146	100	1,331	100	4,464	100	290	100							
j. Being an informed and	pgcitizen	1	Very little	31	21	275	21	1,120	25	69	24							
active citizen		2	Some	51	35	526	39	1,668	37	133	46							
		3	Quite a bit	43	29	353	27	1,091	24	64	22	2.4	2.3	.05	2.3	.11	2.1 *	.25
		4	Very much	21	14	178	13	592	13	23	8						Δ	
			Total	146	100	1,332	100	4,471	100	289	100							



Frequencies and Statistical Comparisons: Aero and Engineering

Seniors ^a in						Freque	ncy Di	stribution	IS				Sta	atistical	Comparis	sons ^k		
Aero and Eng	gineering													Ŷ	our seniors c	ompared wi	th	
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNI	C	UND	Plains	Public	Carnegi	e Class	One l	JND
Item wording or description	Variable name ^I	Values	^m Response options	Count	%	Count	%	Count	%	Count	%	Mean	Mean	Effect size "	Mean	Effect size "	Mean	Effect size ⁿ
18. How would you ev	valuate your enti	re educa	ational experience at th	nis institution	?													
	evalexp	1	Poor	5	3	51	4	170	4	7	2							
		2	Fair	16	11	182	14	638	14	41	14							
		3	Good	89	61	714	53	2,176	48	153	53	3.1	3.1	.00	3.1	05	3.1	05
		4	Excellent	37	25	388	29	1,504	34	88	30							
			Total	147	100	1,335	100	4,488	100	289	100							
19. If you could start	over again, woul	ld you go	o to the same institution	<i>i</i> you are nov	w atte	nding?												
	sameinst	1	Definitely no	2	1	63	5	241	5	14	5							
		2	Probably no	19	13	174	13	632	14	24	8							
		3	Probably yes	83	56	654	49	1,955	44	144	49	3.1	3.1	.03	3.1	.02	3.2	08
		4	Definitely yes	43	29	445	33	1,660	37	109	37							
			Total	147	100	1,336	100	4,488	100	291	100							



Respondent Profile: Aero and Engineering

Ae	ero and Engine	eering				First-Y	'ear 🗄	Students	9						Seni	ors ^a			
	Item wording	Variable		UND		Plains Pub	lic	Carnegie Cl	ass	One UNE)	UND		Plains Pub	lic	Carnegie C	lass	One UN	ID
	or description	name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
21a.	How many majors do	MAJnum	One	56	95	794	91	3,438	90	157	90	127	87	1,179	88	3,968	88	259	89
	you plan to complete?		More than one	3	5	74	9	403	10	17	10	19	13	156	12	523	12	31	11
	(Do not count minors.)		Total	59	100	868	100	3,841	100	174	100	146	100	1,335	100	4,491	100	290	100
	First major or expected	MAJfirstcol	Arts & Humanities	0	0	1	0	7	0	1	1	0	0	2	0	8	0	2	1
	first major, in NSSE's default related-major	(Recoded from MAJfirst.)	Biological Sci., Agriculture, & Natural Resources	0	0	0	0	13	0	0	0	1	1	6	0	7	0	1	0
	categories.		Physical Sci., Mathematics,	6	10	62	7	142	4	12	7	9	6	84	6	183	4	21	7
	(This does not reflect		& Computer Science Social Sciences	0	0	2	0	3	0	0	0	0	0	1	0	9	0	0	0
	any customization				0	2	0		0	0			1	1	0		0	0	
	made for the Major		Business Communications, Media,	0	0	2	0	11	0	0	0	2	1	3	0	13	0	0	0
	Field Report.)		& Public Relations	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
			Education	0	0	1	0	1	0	0	0	0	0	1	0	2	0	1	0
			Engineering	53	90	803	92	3,686	95	165	93	136	91	1,244	92	4,286	95	269	91
			Health Professions	0	0	0	0	1	0	0	0	0	0	3	0	2	0	0	0
			Social Service Professions	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0
			All Other	0	0	4	0	4	0	0	0	1	1	3	0	5	0	0	0
			Undecided, Undeclared	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Total	59	100	875	100	3,869	100	178	100	149	100	1,348	100	4,516	100	294	100
	Second major or	MAJsecondcol	Arts & Humanities	1	33	6	8	52	13	1	6	1	5	11	7	81	16	3	10
	expected second major, in NSSE's default	(Recoded from MAJsecond.)	Biological Sci., Agriculture, & Natural Resources	0	0	1	1	8	2	1	6	1	5	7	4	25	5	6	19
	related-major		Physical Sci., Mathematics, & Computer Science	0	0	24	32	86	22	7	41	4	21	43	28	114	22	14	45
	categories.		Social Sciences	0	0	3	4	22	6	1	6	2	11	5	3	21	4	1	3
	(This does not reflect		Business	0	0	4	5	29	7	0	0	- 1	5	8	5	28	5	0	0
	any customization made for the Major		Communications, Media,	0	0	1	1	1	0	1	6	1	5	0	0	20	0	1	3
	Field Report.)		& Public Relations Education	0	0	1	1	3	1	0	0	0	0	0	0	4	1	0	0
			Engineering	1	33	28	38	159	40	5	29	8	42	62	40	196	38	4	13
			Health Professions	0	0	3	4	10	3	1	6	0	0	5	3	4	1	1	3
			Social Service Professions	0	0	0	0	10	0	0	0	0	0	0	0	3	1	0	0
			All Other	1	33	1	1	10	3	0	0	1	5	6	4	19	4	1	3
			Undecided, Undeclared	0	0	1	3	10 19	5	0	0	0	0	9	+ 6	19	3	0	0
			Total	3	100	2 74	100	400	100	17	100	19	100	156	100	514	100	31	100
22.	What is your class	class	Freshman/First-year	58	98	803	93	3,496	92	165	94	3	2	7	100	10	0	1	0
<i>22</i> .	level?	01055	Sophomore	58 0	98	803 49	93 6	3,496 256	92 7	105	94 4	3 10	2	22	2	10 67	1	1	2
			Junior	0	2	49 6	0	256 40	1	0	4	10 32	22	22 224	2 17	631	1 14	64	22
				1	2	0 2	1	40 8	0	0 4	2	32 97	22 66	224 1,064	80	3,684	14 82	213	
			Senior			-	0						66 4	,		,			
			Unclassified Total	0 59	0	5	1 100	17	0	0	0	6 149		13 1.330	1 100	75	2 100	4 289	1
			TOTAL	59	100	865	100	3,817	100	176	100	148	100	1,530	100	4,467	100	289	100



Respondent Profile: Aero and Engineering

University of North Dakota

Α	ero and Engin	eering				First-Y	ear :	Students	а					:	Seni	ors ^a			
				UND		Plains Pub	lic	Carnegie Cl	ass	One UNI	0	UND		Plains Pub	olic	Carnegie C	lass	One UN	ID
	Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
23.	Thinking about this	fulltime	No	3	5	16	2	71	2	4	2	55	37	137	10	635	14	20	
	current academic term,		Yes	56	95	843	98	3,738	98	171	98	92	63	1,183	90	3,807	86	269	93
	are you a full-time student?		Total	59	100	859	100	3,809	100	175	100	147	100	1,320	100	4,442	100	289	100
24a.	How many courses are	coursenum	0	0	0	2	0	9	0	1	1	0	0	3	0	88	2	2	1
	you taking for credit		1	1	2	3	0	11	0	0	0	5	3	14	1	100	2	2	1
	this current academic		2	2	3	6	1	29	1	2	1	24	16	43	3	207	5	4	1
	term?		3	0	0	51	6	66	2	4	2	24	16	102	8	318	7	16	6
			4	4	7	306	35	731	19	54	31	26	18	501	38	1,156	26	97	33
			5	26	44	326	38	1,636	43	82	47	34	23	398	30	1,549	35	114	39
			6	15	25	105	12	862	23	17	10	14	9	132	10	646	14	33	11
			7 or more	11	19	66	8	478	13	15	9	21	14	136	10	405	9	22	8
			Total	59	100	865	100	3,822	100	175	100	148	100	1,329	100	4,469	100	290	100
b	Of these, how many are	onlinenum	0	51	88	726	85	3,373	89	142	82	62	42	987	75	3,565	80	220	76
	entirely online ?		1	4	7	105	12	347	9	29	17	16	11	258	20	590	13	56	19
			2	2	3	18	2	47	1	1	1	26	18	40	3	161	4	7	2
			3	1	2	9	1	16	0	1	1	23	16	19	1	62	1	4	1
			4	0	0	1	0	8	0	0	0	7	5	6	0	38	1	0	0
			5	0	0	0	0	7	0	0	0	10	7	2	0	12	0	1	0
			6	0	0	0	0	9	0	0	0	1	1	3	0	9	0	1	0
			7 or more	0	0	0	0	2	0	0	0	3	2	6	0	13	0	1	0
			Total	58	100	859	100	3,809	100	173	100	148	100	1,321	100	4,450	100	290	100
	Collapsed recode of	onlinecrscol	No courses taken online	51	88	726	85	3,373	89	142	82	62	42	987	75	3,565	80	220	76
	courses taken online		Some courses taken online	4	7	125	15	397	10	31	18	23	16	302	23	728	16	68	23
	(Based on responses to		All courses taken online	3	5	8	1	39	1	0	0	63	43	32	2	157	4	2	1
	coursenum and onlinenum.)		Total	58	100	859	100	3,809	100	173	100	148	100	1,321	100	4,450	100	290	100
25.	What have most of your	grades	C- or lower	0	0	12	1	55	1	2	1	1	1	4	0	25	1	0	0
	grades been up to now		С	2	3	21	2	85	2	3	2	3	2	28	2	122	3	12	4
	at this institution?		C+	1	2	26	3	152	4	11	6	8	5	56	4	243	5	10	3
			B-	2	3	42	5	267	7	3	2	14	9	97	7	395	9	34	12
			В	9	15	136	16	678	18	28	16	37	25	262	20	910	20	60	21
			B+	8	14	138	16	689	18	22	13	20	14	231	17	815	18	53	18
			A-	9	15	185	21	787	21	40	23	15	10	242	18	835	19	54	19
			А	28	47	302	35	1,101	29	67	38	50	34	409	31	1,111	25	67	23
			Total	59	100	862	100	3,814	100	176	100	148	100	1,329	100	4,456	100	290	100
26.	Did you begin college	begincol	Started here	56	95	794	92	3,566	94	166	95	57	39	844	64	2,930	66	188	65
	at this institution or	2	Started elsewhere	3	5	69	8	240	6	9	5	91	61	483	36	1,523	34	102	35
	elsewhere?		Total	59	100	863	100	3,806	100	175	100	148	100	1,327	100	4,453	100	290	



Respondent Profile: Aero and Engineering

Ae	ero and Engin	eering				First-Y	'ear	Students	а						Seni	ors ^a			
	Item wording	Variable		UND		Plains Pub	lic	Carnegie C	lass	One UNI)	UND		Plains Pub	lic	Carnegie C	lass	One UNI	D
	or description	name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
27.	Since graduating from	attend_voc	Vocational or technical school	3	5	25	3	84	2	1	1	22	15	69	5	205	5	16	6
	high school, which of	attend_com	Community or junior college	3	5	73	8	292	8	10	6	63	43	459	35	1,464	33	82	28
	the following types of schools have you	attend_col	4-year college or university other than this one	3	5	64	7	251	7	13	8	68	46	319	24	953	21	61	21
	attended other than the	attend_none	None	52	88	687	80	3,099	82	147	85	44	30	633	48	2,277	51	147	51
	one you are now attending? (Select all that apply.)	attend_other	Other	2	3	28	3	116	3	4	2	8	5	48	4	157	4	9	3
28.	What is the highest	edaspire	Some college but less than a	2	~	52		166		0	_	14	9	02	6	0.12	~	17	
	level of education you		bachelor's degree	3	5	53	6	166	4	9	5	14	9	82	6	243	5	17	6
	ever expect to		Bachelor's degree (B.A., B.S., etc.)	26	44	387	45	1,397	37	77	44	71	48	561	42	1,684	38	131	45
	complete?		Master's degree (M.A., M.S., etc.)	27	46	319	37	1,711	45	68	39	48	32	509	38	1,924	43	92	32
			Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	3	5	102	12	522	14	21	12	15	10	174	13	604	14	50	17
			Total	59	100	861	100	3,796	100	175	100	148	100	1,326	100	4,455	100	290	100
29.	What is the highest	parented	Did not finish high school	0	0	36	4	149	4	7	4	4	3	35	3	180	4	8	3
	level of education		High school diploma or G.E.D.	4	7	88	10	467	12	12	7	25	17	133	10	576	13	23	8
	completed by either of your parents (or those		Attended college, but did not complete degree	1	2	60	7	304	8	11	6	16	11	96	7	343	8	17	6
	who raised you)?		Associate's degree (A.A., A.S., etc.)	5	8	58	7	299	8	14	8	22	15	115	9	381	9	30	10
			Bachelor's degree (B.A., B.S., etc.)	31	53	325	38	1,283	34	58	33	42	28	514	39	1,519	34	116	40
			Master's degree (M.A., M.S., etc.)	16	27	234	27	976	26	54	31	26	18	305	23	1,039	23	71	25
			Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	2	3	60	7	310	8	18	10	13	9	126	10	404	9	24	8
			Total	59	100	861	100	3,788	100	174	100	148	100	1,324	100	4,442	100	289	100
	First-generation status	firstgen	Not first-generation	49	83	619	72	2,569	68	130	75	81	55	945	71	2,962	67	211	73
	(Neither parent holds a	(Recoded from	First-generation	10	17	242	28	1,219	32	44	25	67	45	379	29	1,480	33	78	27
	bachelor's degree.)	parented.)	Total	59	100	861	100	3,788	100	174	100	148	100	1,324	100	4,442	100	289	100
30.	What is your gender	genderid	Man	43	73	591	69	2,501	66	112	64	103	70	927	70	3,001	67	208	72
	identity?		Woman	12	20	253	29	1,212	32	61	35	37	25	362	27	1,309	29	76	26
			Another gender identity	0	0	6	1	32	1	0	0	2	1	17	1	67	2	2	1
			I prefer not to respond	4	7	10	1	47	1	1	1	5	3	16	1	71	2	3	1
			Total	59	100	860	100	3,792	100	174	100	147	100	1,322	100	4,448	100	289	100
31.	Enter your year of birth	agecat	19 or younger	54	93	789	92	3,448	91	161	93	1	1	6	0	23	1	3	1
	(e.g., 1994):	(Recoded	20-23	3	5	39	5	258	7	7	4	66	45	986	75	3,101	70	214	75
		from the	24-29	0	0	15	2	43	1	5	3	21	14	197	15	847	19	53	18
		information	30-39	1	2	8	1	23	1	0	0	41	28	92	7	308	7	15	5
		entered in	40-55	0	0	2	0	11	0	0	0	16	11	37	3	124	3	2	1
		birthyear.)	Over 55	0	0	0	0	0	0	0	0	1	1	0	0	8	0	0	0
			Total	58	100	853	100	3,783	100	173	100	146	100	1,318	100	4,411	100	287	100



Respondent Profile: Aero and Engineering

Ae	ro and Engin	eering				First-Y	'ear	Students	а					9	Seni	ors ^a			
				UND		Plains Pub	lic	Carnegie C	lass	One UNE)	UND		Plains Pub	lic	Carnegie C	lass	One UN	D
	Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
32a.	Are you an	internat	No	56	97	803	93	3,600	95	163	94	143	97	1,225	93	4,166	94	254	88
	international student?		Yes	2	3	56	7	185	5	11	6	4	3	97	7	275	6	35	12
			Total	58	100	859	100	3,785	100	174	100	147	100	1,322	100	4,441	100	289	100
	[If answered "yes"]	countrycol	Africa Sub-Saharan	0	0	7	15	25	16	0	0	3	75	4	5	18	8	1	3
	Country of citizenship,		Asia	1	50	24	50	65	41	5	63	0	0	42	51	80	34	11	37
	collapsed into regions	(Recoded from	Canada	1	50	0	0	4	3	0	0	1	25	1	1	16	7	10	33
	by NSSE. Responses to <i>country</i> are in the data	country.)	Europe	0	0	3	6	10	6	1	13	0	0	1	1	14	6	0	0
	file.		Latin America and Caribbean	0	0	6	13	27	17	2	25	0	0	9	11	36	15	0	0
	inc.		Middle East and North Africa	0	0	8	17	28	18	0	0	0	0	25	30	72	30	8	27
			Oceania	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0
			Unknown region/uncoded	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			Total	2	100	48	100	160	100	8	100	4	100	82	100	237	100	30	100
33.	How would you	re_amind	American Indian or Alaska Native	1	2	18	2	64	2	4	2	4	3	20	2	62	1	4	1
	describe yourself?	re_asian	Asian	2	3	73	9	406	11	13	8	8	5	107	8	416	9	24	8
	(Select all that apply.)	re_black	Black or African American	0	0	36	4	276	7	7	4	6	4	44	3	201	5	7	2
		re_latino	Hispanic or Latina/o	1	2	44	5	513	14	12	7	3	2	67	5	493	11	19	7
		re_mena	Middle Eastern or N. African (2019)	0	0	9	2	49	2	2	1	0	0	25	3	74	2	9	4
		re_pacific	Native Hawaiian/Other Pac. Islander	1	2	8	1	36	1	1	1	2	1	9	1	40	1	0	0
		re_white	White	52	88	693	81	2,660	70	142	82	120	82	1,040	79	3,248	74	238	83
		re_another	Another race or ethnicity (2019)	0	0	3	1	38	1	0	0	1	1	9	1	30	1	1	0
		re_other	Other (2018)	0	0	6	2	35	3	0	0	0	0	9	2	48	4	0	0
		re_pnr	I prefer not to respond	4	7	25	3	107	3	5	3	10	7	51	4	183	4	9	3
	Racial or ethnic	re_all19	American Indian or Alaska Native	0	0	6	1	13	0	1	1	0	0	6	0	18	0	0	0
	identification	(Items re_amind	Asian	2	3	63	7	302	8	11	6	7	5	92	7	328	7	19	7
		to re_pnr	Black or African American	0	0	25	3	220	6	4	2	6	4	37	3	159	4	6	2
		recoded where	Hispanic or Latina/o	0	0	27	3	351	9	6	3	1	1	38	3	334	8	7	2
		each student is	Middle Eastern or N. African (2019)	0	0	6	1	35	1	2	1	0	0	20	2	53	1	7	2
		represented only	Native Hawaiian/Other Pac. Islander	1	2	1	0	7	0	0	0	1	1	7	1	7	0	0	0
		once)	White	50	85	647	76	2,364	63	131	76	114	78	983	75	2,970	67	216	75
			Another race or ethnicity (2019)	0	0	1	0	13	0	0	0	1	1	7	1	16	0	1	0
			Other (2018)	0	0	4	0	16	0	0	0	0	0	8	1	34	1	0	0
			Multiracial	2	3	50	6	349	9	13	8	7	5	63	5	312	7	22	8
			I prefer not to respond	4	7	25	3	107	3	5	3	10	7	51	4	183	4	9	3
			Total	59	100	855	100	3,777	100	173	100	147	100	1,312	100	4,414	100	287	100
34.	Are you a member of a	greek	No	54	92	730	85	3,484	92	155	89	134	91	1,074	81	3,887	88	254	88
	social fraternity or		Yes	5	8	128	15	307	8	19	11	14	9	246	19	549	12	35	12
	sorority?		Total	59	100	858	100	3,791	100	174	100	148	100	1,320	100	4,436	100	289	100



Respondent Profile: Aero and Engineering

Aero and Engineering					First-Year Students ^a									Seniors ^a							
				UND		Plains Pub	lic	Carnegie C	lass	One UNI)	UND		Plains Pub	lic	Carnegie C	lass	One UNI	D		
	Item wording or description	Variable name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%		
35.	Which of the following	living18	Campus housing (other than a	47	80		73	2,747	73	129	74	12	8	100	8	594	13	38	13		
	best describes where		fraternity or sorority house)	47	80	627	13	2,747	13	129	/4	12	8	100	8	594	15	38	15		
	you are living while		Fraternity or sorority house	1	2	33	4	28	1	7	4	1	1	51	4	102	2	8	3		
	attending college?		House, apartment, or other residence	2	3	56	7	249	7	9	5	38	26	519	39	1,405	32	131	45		
			<i>within walking distance</i> to campus House, apartment, or other residence																		
			<i>farther than walk. dist.</i> to campus	7	12	133	16	721	19	27	16	43	29	642	49	2,214	50	112	39		
			Not applicable: No campus, entirely	2	3	6	1	24	1	1	1	53	36	7	1	95	2	0	0		
			online program, etc.	2	3	0	1	24	1	1	1	55	50	1	1	93	2	0	0		
			Not applicable: Homeless or	0	0	2	0	6	0	1	1	1	1	2	0	21	0	0	0		
			in transition Total	59	100	857	100	3,775	100	174	100	148	100	1,321	100	4,431	100	289	100		
36.	Are you a student-	athlete	No	53	90	808	94	3,775	95	174	97	148	96	1,321	97	4,431	95	289	98		
50.	athlete on a team	aunete	Yes	6	90 10	49	94 6	204	5	5	3	6	90 4	36	3	203	5	201	2		
	sponsored by your		Total	59	100	857	100	3,780	100	174	100	148	100	1,320	100	4,419	100	287	100		
	institution's athletics		Total	57	100	057	100	5,700	100	1/4	100	110	100	1,520	100	1,119	100	207	100		
	department?																				
37.	Are you a current or	veteran	No	56	95	833	97	3,713	98	172	98	126	85	1,227	93	4,144	94	276	96		
	former member of the		Yes	3	5	24	3	60	2	3	2	22	15	91	7	286	6	13	4		
	U.S. Armed Forces, Reserves, or National		Total	59	100	857	100	3,773	100	175	100	148	100	1,318	100	4,430	100	289	100		
	Guard?																				
38a.	Have you been	disability	No	54	92	757	88	3,245	86	158	90	136	92	1,148	87	3,798	86	259	90		
	diagnosed with any		Yes	2	3	75	9	400	11	12	7	6	4	137	10	495	11	21	7		
	disability or		I prefer not to respond	3	5	25	3	138	4	5	3	6	4	38	3	148	3	9	3		
	impairment?		Total	59	100	857	100	3,783	100	175	100	148	100	1,323	100	4,441	100	289	100		
t	[If answered "yes"]	dis_sense	A sensory impairment (vision	0	0	19	25	68	17	3	25	1	17	21	15	74	15	5	24		
	Which of the following	_	or hearing)																		
	has been diagnosed?	dis_mobility	A mobility impairment	0	0	6	8	14	4	0	0	1	17	12	9	35	7	1	5		
	(Select all that apply.)	dis_learning	A learning disability (e.g., ADHD, dyslexia)	0	0	28	37	187	47	4	33	3	50	60	44	231	47	9	43		
		dis_mental	A mental health disorder	2	100	37	49	145	36	5	42	2	33	54	40	194	39	7	33		
		_	A disability or impairment not	0	0	9	12	(0	17	1	8	0	0	20	15	95	19	2			
		dis_other	listed above	0	0	9	12	68	17	1		0	0	20	15	93	19	2	10		
	Disability or	disability_all	A sensory impairment	0	0	12	1	44	1	3	2	1	1	15	1	47	1	5	2		
	impairment	(Items dis_sense		0	0	1	0	8	0	0	0	1	1	7	1	13	0	1	0		
		to dis_other	A learning disability	0	0	16	2	136	4	3	2	2	1	41	3	150	3	6	2		
		recoded where	A mental health disorder	2	3	22	3	91	2	4	2	1	1	33	2	115	3	5	2		
		each student is	A disability or impairment not listed	0	0	5	1	44	1	1	1	0	0	16	1	56	1	1	0		
			More than one disability or	0	0	19	2	75	2	1	1	1	1	24	2	111	3	3	1		
		once.)	impairment No disability or impairment	54	92	757	88	3,245	86	158	90	136	92	1,148	87	3,798	86	259	90		
			Prefer not to respond	34	5	25	3	138	4	158	3	6	92 4	38	3	148	3	239	3		
			Total	59	100	23 857	100	3,781	4	175	100	0 148	4 100	1,322	100	4,438	100	9 289	100		
			- out	59	100	057	100	5,701	100	175	100	140	100	1,522	100	т,т50	100	20)	100		



Respondent Profile: Aero and Engineering

University of North Dakota

Aero and Engineering					First-Y	ear	Students	а		Seniors ^a									
	Item wording Variable			UND		Plains Public		Carnegie Class		One UND		UND		Plains Public		Carnegie Class		One UND	
	or description	name	Response options	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	9
9.	Which of the following	sexorient17	Straight (heterosexual)	52	88	748	88	3,260	86	149	86	119	80	1,176	89	3,819	86	253	8
	best describes your		Bisexual	1	2	42	5	196	5	11	6	10	7	44	3	178	4	10	
	sexual orientation?		Gay	1	2	6	1	39	1	0	0	1	1	10	1	63	1	4	
			Lesbian	0	0	6	1	30	1	1	1	2	1	9	1	36	1	1	
			Queer	0	0	1	0	18	0	0	0	1	1	3	0	19	0	1	
			Questioning or unsure	0	0	10	1	53	1	0	0	0	0	14	1	29	1	2	
			Another sexual orientation	1	2	7	1	49	1	3	2	2	1	17	1	70	2	3	
			I prefer not to respond	4	7	34	4	144	4	9	5	13	9	52	4	226	5	14	:
			Total	59	100	854	100	3,789	100	173	100	148	100	1,325	100	4,440	100	288	10
ıst	itution-reported info	ormation (Varia	bles provided by your institution in your	NSSE populatio	n file.)														-
	Institution-reported:	IRsex19	Female	13	22	256	29	1,256	32	61	34	38	26	371	28	1,365	30	79	2
	Sex		Male	46	78	619	71	2,612	67	117	66	111	74	977	72	3,149	70	215	7
			Another	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
			Unknown	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	
			Total	59	100	875	100	3,870	100	178	100	149	100	1,348	100	4,516	100	294	10
	Institution-reported:	IRrace	American Indian or Alaska Native	0	0	6	1	9	0	1	1	0	0	8	1	16	0	1	(
	Race or ethnicity		Asian	1	2	35	5	193	6	5	3	7	5	51	5	194	5	6	
			Black or African American	0	0	20	3	204	6	4	2	3	2	35	3	155	4	3	
			Hispanic or Latino	1	2	39	5	466	14	9	5	4	3	38	3	423	11	10	
			Native Hawaiian/Other Pac. Islander	0	0	1	0	41	1	1	1	0	0	0	0	37	1	0	
			White	54	92	575	74	2,091	62	135	76	121	81	836	75	2,686	68	214	7
			Other	0	0	0	0	4	0	0	0	0	0	0	0	4	0	0	
			Foreign or nonresident	2	3	56	7	171	5	14	8	8	5	81	7	240	6	37	1
			Two or more races/ethnicities	1	2	32	4	109	3	6	3	5	3	33	3	111	3	9	
			Unknown	0	0	8	1	106	3	2	1	1	1	26	2	99	2	13	
			Total	59	100	772	100	3,394	100	177	100	149	100	1,108	100	3,965	100	293	10
	Institution-reported:	IRclass	Freshman/First-Year	59	100	875	100	3,870	100	178	100	0	0	0	0	0	0	0	
	Class level		Sophomore	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	
			Senior	0	0	0	0	0	0	0	0	149	100	1,348	100	4,516	100	294	10
			Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			Total	59	100	875	100	3,870	100	178	100	149	100	1,348	100	4,516	100	294	10
	Institution-reported:	IRftfy	Not first-time first-year	1	2	73	8	210	5	9	5	149	100	1,339	99	4,451	99	294	10
	First-time first-year		First-time first-year	58	98	802	92	3,659	95	169	95	0	0	9	1	65	1	0	
	(FTFY) student		Total	59	100	875	100	3,869	100	178	100	149	100	1,348	100	4,516	100	294	10
	Institution-reported:	IRenrollment	Not full-time	2	3	11	1	73	2	0	0	59	40	147	11	545	12	16	
	Enrollment status		Full-time	57	97	864	99	3,797	98	178	100	90	60	1,201	89	3,971	88	278	9
			Total	59	100	875	100	3,870	100	178	100	149	100	1,348	100	4,516	100	294	10



Endnotes: Aero and Engineering University of North Dakota

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 +/- 1.96 * SEM.
- d. A percentile is the point in the distribution of student-level EI scores at or below which a given percentage of EI scores fall.
- e. Degrees of freedom used to compute the t-tests. Values differ from Ns due to whether equal variances were assumed.
- f. Statistical significance represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance: *p < .05, **p < .01, ***p < .01 (2-tailed).
- g. Cohen's *d*: The mean difference divided by the pooled standard deviation. Effect size indicates the practical importance of an observed difference. For EI comparisons, NSSE research has concluded that an effect size of about .1 may be considered small, .3 medium, and .5 large (Rocconi & Gonyea, 2015). Comparisons with an effect size of at least .3 in magnitude (before rounding) are highlighted in the Overview.
- h. Percentage of students who responded "Done or in progress" except for service-learning which is the percentage who responded that at least "Some" courses included a community-based project.
- i. Percentage point differences (institution comp. group) rounded to whole numbers. Values less than one may not display a bar and may be shown as +0 or -0. *p < .05, **p < .01, ***p < .001 (*z*-test comparing participation rates).
- j. Cohen's *h*: The standardized difference between two proportions. Effect size indicates the practical importance of an observed difference. NSSE research has found that interpretations vary by HIP: For service-learning, internships, study abroad, and culminating senior experiences, an effect size of about .2 may be considered small, .5 medium, and .8 large. For learning community and research with faculty, an effect size of about .1 may be considered small, .3 medium, and .5 large (Rocconi & Gonyea, 2015).
- k. Means calculated from ordered response options (e.g., Very Often, Often, Sometimes, Never) assume equal intervals and should be interpreted with caution. Unless otherwise noted, statistical comparisons are two-tailed independent t-tests. Exceptions are the dichotomous high-impact practice items (11a to 11f) which are compared using a z-test.
- 1. 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.
- Δ Your students' average was significantly higher (p < .05) with an effect size less than .3 in magnitude.
- ∇ Your students' average was significantly lower (p < .05) with an effect size less than .3 in magnitude.
- **Your students' average** was significantly lower (p < .05) with an effect size at least .3 in magnitude.
- Note: It is important to interpret the direction of differences relative to item wording and your institutional context.

Reference: Rocconi, L.M., & Gonyea, R.M. (2018). Contextualizing effect sizes in the National Survey of Student Engagement: An empirical analysis. Research & Practice in Assessment, 13 (Summer/Fall), pp. 22-38.