



BUSSE 2019 Scale Means

About This Report

BUSSE Scales provide a useful summary of the detailed information contained in your students' BUSSE responses. By combining responses to related BUSSE questions, each scale offers valuable information about a distinct aspect of student engagement.

BUSSE Scales ^a	Variable	All Students			Gender Comparisons				First-generation ^d Comparisons			
		Mean	SD	N	Means		Tests of mean differences		Means		Tests of mean differences	
					Males	Females	Sig ^b	Effect size ^c	FG	Non-FG	Sig ^b	Effect size ^c
Quantitative Reasoning <i>High school engagement with analysis and numerical information</i>	HS_QR	40.4	12.8	1324	38.5	41.3	***	-0.23	41.5	38.3	***	0.24
Learning Strategies <i>Use of effective learning strategies in high school</i>	HS_LS	39.2	12.8	5541	37.6	40.0	***	-0.20	39.7	37.7	***	0.16
Collaborative Learning <i>Expectation to interact and collaborate with peers</i>	EXP_CL	37.1	12.3	5547	36.9	37.2		-0.03	37.8	35.5	***	0.19
Student-Staff Interaction <i>Expectation to interact and engage with staff</i>	EXP_SSI	25.4	14.4	5546	26.4	24.8	***	0.11	26.3	23.0	***	0.23

1. **Scale description and variable Name:** A brief description of the BUSSE scale along with the variable name for easy reference to your data file and codebook. See Scale Descriptions for more information.

2. **Mean:** The unweighted scale mean is reported overall for the institution, as well as by gender and first-generation status.

3. **Statistical Significance:** Items with mean differences that are larger than would be expected by chance alone are noted with asterisks referring to three significance levels (*p<.05, **p<.01, and ***p<.001). Significance levels indicate the probability that an observed difference is due to chance. Statistical significance does not guarantee the result is substantive or important. Large sample sizes tend to generate more statistically significant results even though the magnitude of mean differences may be inconsequential. Consult effect sizes (see #7) to judge the practical meaning of differences. Statistical comparisons are two-tailed independent t-

4. **Effect size:** Indicates the "practical significance" of the mean difference. It is calculated by dividing the mean difference by the pooled standard deviation. In practice, an effect size of .2 is often considered small, .5 moderate, and .8 large.



BUSSE 2019 Scale Mean Scores and Selected Student Comparisons

BUSSEville University

BUSSE Scales	Variable	All Students			Gender				First-Generation ^a			
		Mean	SD	N	Males	Females	ES	FG	Non-FG	ES		
					Means	Means		Means	Means			
Quantitative Reasoning												
<i>High school engagement with analysis and numerical information</i>	HS_QR	28.0	12.5	5630	29.3	27.2	***	0.17	27.9	28.1		-0.02
Learning Strategies												
<i>Use of effective learning strategies in high school</i>	HS_LS	40.3	12.5	5632	38.9	41.1	***	-0.18	40.9	38.5	***	0.19
Collaborative Learning												
<i>Expectation to interact and collaborate with peers</i>	EXP_CL	37.7	12.3	5632	37.0	38.2	***	-0.09	38.3	35.9	***	0.21
Student-Staff Interaction												
<i>Expectation to interact and engage with staff</i>	EXP_SSI	25.9	14.2	5629	26.1	25.8		0.02	26.6	23.6	***	0.23
Expected Discussions with Diverse Others												
<i>Expectation to engage in discussions with diverse others</i>	EXP_DD	39.4	14.3	5578	38.3	40.1	***	-0.13	38.9	41.0	***	-0.14
Expected Academic Perseverance												
<i>Student certainty that they will persist in the face of academic adversity</i>	EXP_PER	43.9	10.9	5608	43.2	44.3	***	-0.11	44.3	42.6	***	0.16
Expected Academic Difficulty												
<i>Expected academic difficulty during the coming year</i>	EXP_DIF	28.1	13.5	5627	27.3	28.6	**	-0.09	27.6	29.7	***	-0.18
Perceived Academic Preparation												
<i>Student perception of their academic preparation</i>	PER_PREP	46.9	10.4	5590	46.6	47.1		-0.05	47.1	46.3	**	0.08
Importance of Campus Environment												
<i>Student-rated importance that the institution provides a challenging and supportive environment</i>	IMP_CAMP	44.3	10.5	5614	43.8	44.7	**	-0.09	44.7	43.3	***	0.13



BUSSE Scales

BUSSE Scales scores were calculated by converting the responses for each item to a 0-60 range. A mean scale score was then calculated for each student. Below is a brief description of each scale with the component BUSSE items in parentheses.

Scale name	Description	Scale items
<i>Quantitative Reasoning (HS_QR)</i>	High school engagement with analysis and numerical information	bownnumin, bnumreal, bothnum
<i>Learning Strategies (HS_LS)</i>	Use of effective learning strategies in high school	bidread, brevnotes, bsummat
<i>Collaborative Learning (EXP_CL)</i>	Expectation to interact and collaborate with peers	bhelpund, btutor, bprepexam, cclassgr
<i>Student-Staff Interaction (EXP_SSI)</i>	Expectation to interact and engage with staff	bfacplans, cfacothr, cfacgrad, cfacidea
<i>Discussions with Diverse Others (EXP_DD)</i>	Expectation to engage in discussions with diverse others	cdivrstu, bdiffecon, bdiffstu2, bdiffview
<i>Academic Perseverance (EXP_PER)</i>	Student certainty that they will persist in the face of academic adversity	cotherint, cfindinfo, ccourdis, caskinst, cfinish, cstaypos
<i>Academic Difficulty (EXP_DIF)</i>	Expected academic difficulty during the coming year	clearnma, cmantime, cgethelp, cintfac
<i>Perceived Academic Preparation (PER_PREP)</i>	Student perception of their academic preparation	cgnwrite, cgnspeak, cganaly, cgquant, cgnother, cgncmpt, cgning
<i>Importance of Campus Environment (IMP_CAMP)</i>	Student-rated importance that the institution provides a challenging and supportive environment	cenvscho, cenvsupr, cenvdivr, cenvnaca, cenvsoca, cenveven, benvlear