
BCSSE 2020
First-Year Student Scale Means
St. Olaf College

Scale Means About This Report

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

- Student status:** Class level as reported by your students.
- Scale description and variable name:** A brief description of the BCSSE scale along with the variable name for easy reference to your datafile and codebook. See Scale Descriptions for more information.
- Mean:** The unweighted scale mean is reported overall for the institution, as well as by first-generation status and high school grades.
- Statistical comparisons:** Items with mean differences that are larger than would be expected by chance are noted with asterisks referring to three significance levels (* $p < .05$, ** $p < .01$, *** $p < .001$). 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 #5) to judge the practical meaning of differences. Unless otherwise noted, statistical comparisons are two-tailed independent t-tests
- Effect size:** Effect size indicates practical significance. An effect size of .2 is often considered small, .5 moderate, and .8 large. Effect sizes for independent t -tests use Cohen's d . Cohen's d is calculated by dividing the mean difference by the pooled standard deviation. See: Cohen, J. (1988). *Statistical power analysis for the behavioral sciences (2nd edition)*. New York: Psychology Press.

Scale Mean Scores and Selected Student Comparisons

BCSSEville State University

BCSSE Scales	Variable ^a	Scale Mean Scores and Selected Student Comparisons									
		All Students			First-Generation ^a			Self-Reported High School Grades			
		Mean	SD	N	Yes Mean	No Mean	ES	A- or higher Mean	B+ or lower Mean	ES	ES
Quantitative Reasoning <i>High school engagement with analysis and numerical information</i>	HS_QR	26.3	14.1	1221	25.4	27.7 **	-.16	26.6	26.2	.02	
Learning Strategies <i>Use of effective learning strategies in high school</i>	HS_LS	36.6	12.7	1220	36.4		-.04	37.5	35.3 **	.17	
Collaborative Learning <i>Expectation to interact and collaborate with peers</i>	EXP_CL	34.9	10.7	1232	34.3	35.1	-.07	35.5	33.6 **	.17	
Student-Faculty Interaction <i>Expectation to interact and engage with faculty</i>	EXP_SFI	30.4	11.5	1234	29.9	30.9	-.09	30.6	30.0	.05	
Expected Discussions with Diverse Others <i>Expectation to engage in discussions with diverse others</i>	EXP_DD	42.1	13.9	1233	40.8	43.0 **	-.15	43.1	40.1 ***	.21	
Expected Academic Perseverance <i>Student certainty that they will persist in the face of academic adversity</i>	EXP_PER	40.6	9.8	1233	40.8	41.1	-.03	41.8	39.8 ***	.20	
Expected Academic Difficulty <i>Expected academic difficulty during the coming year</i>	EXP_DIF	26.3	10.4	1233	26.9	25.0 **	.18	25.9	26.3	-.04	
Perceived Academic Preparation <i>Student perception of their academic preparation</i>	PER_PREP	41.9	10.2	1233	41.6	42.9 *	-.13	43.4	40.6 ***	.27	
Importance of Campus Environment <i>Student-rated importance that the institution provides a challenging and supportive environment</i>	IMP_CAMP	41.3	10.7	1233	41.1	41.7	-.05	42.2	40.1 ***	.20	

Scale Mean Scores and Selected Student Comparisons

St. Olaf College

First-Year Students

BCSSE Scales	Variable ^b	All Students			First-Generation ^a			Self-Reported High School Grades		
					Yes	No	ES	A- or higher	B+ or lower	ES
		Mean	SD	N	Mean	Mean		Mean	Mean	
Quantitative Reasoning <i>High school engagement with analysis and numerical information</i>	HS_QR	31.1	13.9	507	30.0	31.5	-.11	30.8	31.2	-.03
Learning Strategies <i>Use of effective learning strategies in high school</i>	HS_LS	37.4	12.2	510	39.0	36.8	.18	36.9	38.4	-.13
Collaborative Learning <i>Expectation to interact and collaborate with peers</i>	EXP_CL	35.6	11.5	495	36.7	35.3	.13	35.1	37.0	-.16
Student-Faculty Interaction <i>Expectation to interact and engage with faculty</i>	EXP_SFI	31.8	12.6	494	36.9	30.4	*** .53	30.6	35.9	*** -.43
Expected Discussions with Diverse Others <i>Expectation to engage in discussions with diverse others</i>	EXP_DD	43.9	11.8	493	44.4	43.7	.06	43.8	44.5	-.06
Expected Academic Perseverance <i>Student certainty that they will persist in the face of academic adversity</i>	EXP_PER	42.6	8.3	488	42.9	42.5	.04	42.6	42.3	.03
Expected Academic Difficulty <i>Expected academic difficulty during the coming year</i>	EXP_DIF	29.8	9.4	488	31.0	29.5	.17	30.0	29.5	.06
Perceived Academic Preparation <i>Student perception of their academic preparation</i>	PER_PREP	42.4	8.4	488	40.5	42.9	* -.28	42.8	40.5	* .28
Importance of Campus Environment <i>Student-rated importance that the institution provides a challenging and supportive environment</i>	IMP_CAMP	47.0	8.5	487	47.5	46.9	.07	46.8	47.3	-.06

BCSSE Scales

BCSSE 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 BCSSE items in parentheses.

Scale name	Description	Scale items
<i>Quantitative Reasoning</i> (<i>HS_QR</i>)	High school engagement with analysis and numerical information (First-year students only)	hQRconclud, hQRproblm, hQRrevaluat
<i>Learning Strategies</i> (<i>HS_LS</i>)	Use of effective learning strategies in high school. (First-year students only)	hLSreading, hLSnotes, hLSSummary
<i>Learning Strategies</i> (<i>TR_LS</i>)	Use of effective learning strategies at prior institution (Transfer students only)	tLSreading, tLSnotes, tLSSummary
<i>Collaborative Learning</i> (<i>EXP_CL</i>)	Expectation to interact and collaborate with peers	cCLaskhlp, cCLxplain, cCLstudy, cCLproject
<i>Student-Faculty Interaction</i> (<i>EXP_SFI</i>)	Expectation to interact and engage with faculty	cSFcareer, cSFothrwrk, cSFprform, cSFdiscuss
<i>Discussions with Diverse Others</i> (<i>EXP_DD</i>)	Expectation to engage in discussions with diverse others	cDVrace, cDVeconomc, cDVreligion, cDVpolitical
<i>Academic Perseverance</i> (<i>EXP_PER</i>)	Student certainty that they will persist in the face of academic adversity	cotherint, cfindinfo, ccourdis, caskinst, cfinish, cstaypos
<i>Academic Difficulty</i> (<i>EXP_DIF</i>)	Expected academic difficulty during the coming year	clearnma, cmantime, cgethelp, cintfac
<i>Perceived Academic Preparation</i> (<i>PER_PREP</i>)	Student perception of their academic preparation	cSGwrite, cSGspeak, cSGthink, cSGanalyze, cSGothers, cgncompt13, cgningq
<i>Importance of Campus Environment</i> (<i>IMP_CAMP</i>)	Student-rated importance that the institution provides a challenging and supportive environment	cacadexp, cSEacad, cSEdiv, cSEnacad, cSEsoc, cSEact, cSEserv

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provides a challenging and supportive environment

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