



BCSSE Institutional Report
Mean Scale Scores and Selected Student Comparisons
Indiana State University

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
<i>Quantitative Reasoning</i>	High school engagement with analysis and numerical information
<i>Learning Strategies</i>	Use of effective learning strategies in high school.
<i>Collaborative Learning</i>	Expectation to interact and collaborate with peers
<i>Student-Faculty Interaction</i>	Expectation to interact and engage with faculty
<i>Discussions with Diverse Others</i>	Expectation to engage in discussions with diverse others
<i>Academic Perseverance</i>	Student certainty that they will persist in the face of academic adversity
<i>Academic Difficulty</i>	Expected academic difficulty during the first year of college
<i>Perceived Academic Preparation</i>	Student perception of their academic preparation
<i>Importance of Campus Environment</i>	Student-rated importance that the institution provides a challenging and supportive environment

BCSSE Scales ^a	All Students			Self-Reported High School grades				First-Generation ^d Comparisons			
	Mean	SD	N	Means		Tests of mean differences		Means		Tests of mean differences	
				A- or higher	B+ or lower	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>	32.01	14.12	110	32.50	29.99	.17	.17	31.50	29.25	.12	.12

- Scale**: The BCSSE Scale appears in the left column of the report. All scores are in a 0-60 range.
- Mean**: The unweighted scale mean is reported overall for the institution, as well as by high school grades and first-generation status.
- Institutional Level**: Results for each item for the institution overall.
- Selected Student Comparisons**: Results for each item by self-reported high school grades and first-generation status.

- Statistical Significance**: Items with mean differences that are larger than would be expected by chance alone are noted with one, two, or three asterisks, referring to three significance levels ($p < .05$, $p < .01$, and $p < .001$). The smaller the significance level, the smaller the likelihood that the 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. It is recommended to consult effect sizes to judge the practical meaning of the results.

- 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.

BCSSE 2018 Mean Scale Scores and Selected Student Comparisons Indiana State University

BCSSE Scales (Scores range from 0-60)	All ISU Students			Self-Reported High School grades				First-Generation ^d Comparisons			
				Means		Tests of mean differences		Means		Tests of mean differences	
	<i>Mean</i>	<i>SD</i>	<i>N</i>	<i>A- or higher</i>	<i>B+ or lower</i>	<i>Sig^b</i>	<i>Effect size^c</i>	<i>FG</i>	<i>Non-FG</i>	<i>Sig^b</i>	<i>Effect size^c</i>
Quantitative Reasoning <i>High school engagement with analysis and numerical information</i>	26.13	14.68	375	28.21	24.11	**	.28	25.18	26.79		-.11
Learning Strategies <i>Use of effective learning strategies in high school</i>	35.86	13.51	378	37.25	34.46	*	.21	36.43	36.02		.03
Collaborative Learning <i>Expectation to interact and collaborate with peers</i>	37.36	12.24	351	37.40	37.26		.01	38.19	37.00		.10
Student-Faculty Interaction <i>Expectation to interaction and engage with faculty</i>	31.84	14.02	350	31.18	32.35		-.08	33.39	30.25	*	.23
Expected Discussions with Diverse Others <i>Expectation to engage in discussions with diverse others</i>	43.25	14.60	345	45.29	41.05	**	.29	43.96	43.02		.06
Expected Academic Perseverance <i>Student certainty that they will persist in the face of academic adversity</i>	40.73	11.14	344	41.27	40.17		.10	40.72	40.84		-.01
Expected Academic Difficulty <i>Expected academic difficulty during the first year of college</i>	29.19	10.44	341	27.99	30.47	*	-.24	27.59	31.02	**	-.33
Perceived Academic Preparation <i>Student perception of their academic preparation</i>	41.26	10.21	332	43.15	39.31	***	.38	41.73	40.83		.09
Importance of Campus Environment <i>Student-rated importance that the institution provides a challenging and supportive environment</i>	44.90	10.67	332	45.08	44.63		.04	45.76	44.24		.14

^b T-test results (2-tailed): * p<.05, ** p<.01, *** p<.001. The smaller the significance level, the less likely that the difference is due to chance.

^c Effect size is the mean difference divided by pooled standard deviation. It indicates the practical significance of the mean difference (effect size .2 is often considered small, .5 is moderate, and .8 is large).

^d First generation is defined as no parent or guardian having graduated with a 4-year college degree.