BCSSE Institutional Report
Mean Scale Scores and Selected Student Comparisons
Central Connecticut State University
Institutional Level: Results for each item for the institution overall.

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 Scales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>HS_QR</td>
<td>32.01</td>
<td>14</td>
<td>12</td>
</tr>
</tbody>
</table>

### BCSSE 2016 Mean Scale Scores and Selected Student Comparisons

#### Interpreting Mean Results

1. **Scale**: The BCSSE Scale appears in the left column of the report.

2. **Variable Name**: The variable name as it appears in the data file and codebook.

3. **Mean**: The unweighted scale mean is reported overall for the institution, as well as by high school grades and first-generation status.

4. **Institutional Level**: Results for each item for the institution overall.

5. **Selected Student Comparisons**: Results for each item by self-reported high school grades and first-generation status.

6. **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.

7. **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 Scales

#### Quantitative Reasoning
- **High school engagement with analysis and numerical information**
  - Variable: HS_QR
  - Mean: 32.09
  - SD: 13.97
  - N: 655

<table>
<thead>
<tr>
<th></th>
<th>All Students</th>
<th>Self-Reported High School grades</th>
<th>First-Generation Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
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<td>Quantitative Reasoning</td>
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<td>Learning Strategies</td>
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<td>Collaborative Learning</td>
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<td>Student-Faculty Interaction</td>
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<tr>
<td>Expected Discussions with Diverse Others</td>
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<tr>
<td>Expected Academic Perseverance</td>
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<tr>
<td>Expected Academic Difficulty</td>
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</tbody>
</table>

**Notes:**
- **HS_QR** refers to High School Quantitative Reasoning.
- **HS_LS** refers to High School Learning Strategies.
- **EXP_CL** refers to Expected Collaborative Learning.
- **EXP_SFI** refers to Expected Student-Faculty Interaction.
- **EXP_DD** refers to Expected Discussions with Diverse Others.
- **EXP_PER** refers to Expected Academic Perseverance.
- **EXP_DIF** refers to Expected Academic Difficulty.

**Significance Levels:**
- * indicates significance at the .05 level.
- ** indicates significance at the .01 level.

**Central Connecticut State University:**
- Self-Reported High School grades
- First-Generation Comparisons

**Tests of mean differences:**
- Means
- A- or higher
- B+ or lower
- Sig
- Effect size

**FG:** First-Generation
**Non-FG:** Non-First-Generation

**Effect size:**
- Reflects the magnitude of the difference between groups.
### BCSSE Scales

<table>
<thead>
<tr>
<th>BCSSE Scales</th>
<th>Variable</th>
<th>All Students</th>
<th>Means</th>
<th>Tests of mean differences</th>
<th>First-Generation&lt;sup&gt;d&lt;/sup&gt; Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceived Academic Preparation</strong></td>
<td>PER_PREP</td>
<td>43.37 9.57 655</td>
<td>44.66 42.65 ** .21</td>
<td>43.48 43.18 .03</td>
<td></td>
</tr>
<tr>
<td><strong>Importance of Campus Environment</strong></td>
<td>IMP_CAMP</td>
<td>44.53 9.88 655</td>
<td>45.63 43.94 * .17</td>
<td>44.39 44.85 -.05</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup> Scale scores are expressed in 0 (minimum) to 60 (maximum) point scales. See the following page for complete scale descriptions and component items.

<sup>b</sup> 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.

<sup>c</sup> 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).

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

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For the **Perceived Academic Preparation** scale, the mean score for all students is 43.37 with a standard deviation of 9.57, based on a sample size of 655. The mean score for **A- or higher** is 44.66, and for **B+ or lower** is 42.65, with a **Sig** of **.21** indicating a statistically significant difference.

For the **Importance of Campus Environment** scale, the mean score for all students is 44.53 with a standard deviation of 9.88, based on a sample size of 655. The mean score for **A- or higher** is 45.63, and for **B+ or lower** is 43.94, with a **Sig** of **.17** indicating a statistically significant difference.

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