CAT Overview: Descriptive Statistics for CAT Total Score
Sam Houston State University: August 2018 - College of Health Sciences

<table>
<thead>
<tr>
<th>N</th>
<th>Min.</th>
<th>Max.</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAT Total Score</td>
<td>237</td>
<td>4.00</td>
<td>28.00</td>
<td>15.22</td>
</tr>
</tbody>
</table>

### Average Total Points Attained

![Average Total Points Attained](chart)

### CAT Demographics: Descriptive Statistics for Sample

#### Gender

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>51</td>
</tr>
<tr>
<td>Female</td>
<td>184</td>
</tr>
</tbody>
</table>

#### Class Standing

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman</td>
<td>1</td>
</tr>
<tr>
<td>Sophomore</td>
<td>4</td>
</tr>
<tr>
<td>Junior</td>
<td>113</td>
</tr>
<tr>
<td>Senior</td>
<td>116</td>
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</tbody>
</table>

#### Class

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>236</td>
</tr>
<tr>
<td>Graduate</td>
<td>1</td>
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#### Age

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤ 20 years</td>
<td>44</td>
</tr>
<tr>
<td>21-25 years</td>
<td>151</td>
</tr>
<tr>
<td>≥ 26 years</td>
<td>26</td>
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</tbody>
</table>

#### Proficiency with the English Language*

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellent</td>
<td>180</td>
</tr>
<tr>
<td>Very Good</td>
<td>39</td>
</tr>
<tr>
<td>Good</td>
<td>17</td>
</tr>
<tr>
<td>Fair</td>
<td>0</td>
</tr>
<tr>
<td>Poor</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Race**

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>169</td>
</tr>
<tr>
<td>Black or African American</td>
<td>46</td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>2</td>
</tr>
<tr>
<td>Asian</td>
<td>19</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>5</td>
</tr>
<tr>
<td>Other Race</td>
<td>16</td>
</tr>
</tbody>
</table>

**The cumulative percent may exceed 100% as students are allowed to select more than one category.

#### Spanish/Hispanic/Latino Ethnicity

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td>49</td>
<td>20.7%</td>
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#### Considered English primary language?

<table>
<thead>
<tr>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
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<tbody>
<tr>
<td>223</td>
<td>94.1%</td>
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* Self-rated
<table>
<thead>
<tr>
<th>Q1</th>
<th>Summarize the pattern of results in a graph without making inappropriate inferences.</th>
<th>Points Awarded</th>
<th>Freq.</th>
<th>Freq. %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>98</td>
<td>41.4%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>139</td>
<td>58.6%</td>
<td></td>
</tr>
<tr>
<td>Q2</td>
<td>Evaluate how strongly correlational-type data supports a hypothesis.</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td>37.1%</td>
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<td></td>
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<td>29</td>
<td>12.2%</td>
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<tr>
<td></td>
<td>3</td>
<td>20</td>
<td>8.4%</td>
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<tr>
<td>Q3</td>
<td>Provide alternative explanations for a pattern of results that has many possible causes.</td>
<td></td>
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<tr>
<td></td>
<td>0</td>
<td>122</td>
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<tr>
<td></td>
<td>1</td>
<td>62</td>
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<tr>
<td></td>
<td>2</td>
<td>35</td>
<td>14.8%</td>
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</tr>
<tr>
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<td>3</td>
<td>18</td>
<td>7.6%</td>
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</tr>
<tr>
<td>Q4</td>
<td>Identify additional information needed to evaluate a hypothesis.</td>
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<tr>
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<td>65</td>
<td>27.4%</td>
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<td>35</td>
<td>14.8%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>17</td>
<td>7.2%</td>
<td></td>
</tr>
<tr>
<td>Q5</td>
<td>Evaluate whether spurious information strongly supports a hypothesis.</td>
<td></td>
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<tr>
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<td>Provide alternative explanations for spurious associations.</td>
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<td>3</td>
<td>16</td>
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<td>Identify additional information needed to evaluate a hypothesis.</td>
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<td>6</td>
<td>2.5%</td>
<td></td>
</tr>
<tr>
<td>Q8</td>
<td>Determine whether an invited inference is supported by specific information.</td>
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<tr>
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<td>14.8%</td>
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<tr>
<td>Q10</td>
<td>Separate relevant from irrelevant information when solving a real-world problem.</td>
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<tr>
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<td>6</td>
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<tr>
<td>Q11</td>
<td>Use and apply relevant information to evaluate a problem.</td>
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<td></td>
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<td>138</td>
<td>58.2%</td>
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</tr>
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<td>32</td>
<td>13.5%</td>
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</tr>
<tr>
<td>Q12</td>
<td>Use basic mathematical skills to help solve a real-world problem.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
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<tr>
<td></td>
<td>1</td>
<td>190</td>
<td>80.2%</td>
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</tr>
<tr>
<td>Q13</td>
<td>Identify suitable solutions for a real-world problem using relevant information.</td>
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<tr>
<td></td>
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</tr>
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<td>2.5%</td>
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</tr>
<tr>
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</tr>
<tr>
<td></td>
<td>5</td>
<td>11</td>
<td>4.6%</td>
<td></td>
</tr>
<tr>
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<td>Identify and explain the best solution for a real-world problem using relevant information.</td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td>59.1%</td>
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<td>3</td>
<td>19</td>
<td>8.0%</td>
<td></td>
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<tr>
<td>Q15</td>
<td>Explain how changes in a real-world problem situation might affect the solution.</td>
<td></td>
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</tbody>
</table>
### Institutional/Departmental Profile

**Sam Houston State University: August 2018 - College of Health Sciences**

<table>
<thead>
<tr>
<th>Evaluate and Interpret Info</th>
<th>Problem Solving</th>
<th>Creative Thinking</th>
<th>Effective Comm.</th>
<th>Skill Assessed by CAT Question</th>
<th>Mean</th>
<th>Avg. % of Attainable Points</th>
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<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
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<td>Q1 Summarize the pattern of results in a graph without making inappropriate inferences.</td>
<td>0.59</td>
<td>59%</td>
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<td>Q2 Evaluate how strongly correlational-type data supports a hypothesis.</td>
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<td>31%</td>
</tr>
<tr>
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<td>X</td>
<td></td>
<td></td>
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<td>0.79</td>
<td>26%</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>Q4 Identify additional information needed to evaluate a hypothesis.</td>
<td>0.89</td>
<td>22%</td>
</tr>
<tr>
<td>X</td>
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<td></td>
<td></td>
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<td>70%</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Q6 Provide alternative explanations for spurious associations.</td>
<td>1.31</td>
<td>44%</td>
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<td>Q8 Determine whether an invited inference is supported by specific information.</td>
<td>0.66</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>Q9 Provide relevant alternative interpretations for a specific set of results.</td>
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<td>35%</td>
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<tr>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>Q10 Separate relevant from irrelevant information when solving a real-world problem.</td>
<td>3.06</td>
<td>76%</td>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Q11 Use and apply relevant information to evaluate a problem.</td>
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<td>43%</td>
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<td></td>
<td>Q12 Use basic mathematical skills to help solve a real-world problem.</td>
<td>0.80</td>
<td>80%</td>
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<tr>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
<td>Q13 Identify suitable solutions for a real-world problem using relevant information.</td>
<td>0.81</td>
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<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td>Q14 Identify and explain the best solution for a real-world problem using relevant information.</td>
<td>2.16</td>
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</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Q15 Explain how changes in a real-world problem situation might affect the solution.</td>
<td>0.67</td>
<td>22%</td>
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</table>

**CAT Total Score** | 15.22 | 40% |

The map of skills covered by each question above is a suggested theoretical guide for interpreting results.
<table>
<thead>
<tr>
<th>Evaluate and Interpret Info</th>
<th>Problem Solving</th>
<th>Creative Thinking</th>
<th>Effective Comm.</th>
<th>Skill Assessed by CAT Question</th>
<th>Institution Mean</th>
<th>National Mean</th>
<th>Probability of difference&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Effect Size&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>Summarize the pattern of results in a graph without making inappropriate inferences.</td>
<td>0.59</td>
<td>0.67</td>
<td>**</td>
<td>-.18</td>
</tr>
<tr>
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<td>X</td>
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<td></td>
<td>Evaluate how strongly correlational-type data supports a hypothesis.</td>
<td>0.92</td>
<td>1.21</td>
<td>***</td>
<td>-.28</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
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<td>Provide alternative explanations for a pattern of results that has many possible causes.</td>
<td>0.79</td>
<td>1.35</td>
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<td>-.56</td>
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<td>Identify additional information needed to evaluate a hypothesis.</td>
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<td>1.41</td>
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<td>-.45</td>
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<tr>
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<td>Evaluate whether spurious information strongly supports a hypothesis.</td>
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<td>0.73</td>
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<tr>
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<td>X</td>
<td>Provide alternative explanations for spurious associations.</td>
<td>1.31</td>
<td>1.56</td>
<td>***</td>
<td>-.31</td>
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<tr>
<td>X</td>
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<td>X</td>
<td>X</td>
<td>Identify additional information needed to evaluate a hypothesis.</td>
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<td>0.82</td>
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<td>-.84</td>
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<td>X</td>
<td>Determine whether an invited inference is supported by specific information.</td>
<td>0.66</td>
<td>0.68</td>
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<tr>
<td>X</td>
<td>X</td>
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<td>X</td>
<td>Provide relevant alternative interpretations for a specific set of results.</td>
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<td>0.93</td>
<td>***</td>
<td>-.31</td>
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<tr>
<td>X</td>
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<td>X</td>
<td>Separate relevant from irrelevant information when solving a real-world problem.</td>
<td>3.06</td>
<td>3.14</td>
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<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Use and apply relevant information to evaluate a problem.</td>
<td>0.85</td>
<td>1.11</td>
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<td>-.40</td>
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<tr>
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<td>X</td>
<td>Use basic mathematical skills to help solve a real-world problem.</td>
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<td>0.82</td>
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<tr>
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<td>X</td>
<td></td>
<td>X</td>
<td>Identify suitable solutions for a real-world problem using relevant information.</td>
<td>0.81</td>
<td>1.18</td>
<td>***</td>
<td>-.37</td>
</tr>
<tr>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>Identify and explain the best solution for a real-world problem using relevant information.</td>
<td>2.16</td>
<td>2.29</td>
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<tr>
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<td>X</td>
<td>X</td>
<td>X</td>
<td>Explain how changes in a real-world problem situation might affect the solution.</td>
<td>0.67</td>
<td>1.15</td>
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<td>-.47</td>
</tr>
<tr>
<td>CAT Total Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15.22</td>
<td>19.04</td>
<td>***</td>
<td>-.67</td>
</tr>
</tbody>
</table>

<sup>a</sup>  * p<.05  **p<.01  ***p<.001 (2–tailed)  Does not Account for entering ACT/SAT.

<sup>b</sup>  Mean difference divided by pooled group standard deviation.

(0.1 - 0.3 = small effect; 0.3 - 0.5 = moderate effect; >0.5 = large effect)

The map of skills covered by each question above is a suggested theoretical guide for interpreting results.