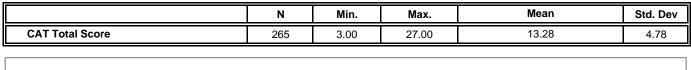
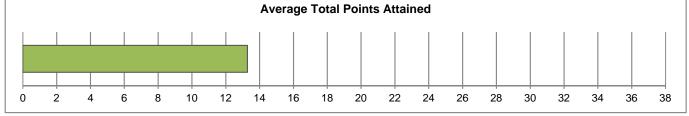
# Sam Houston State University

# **CAT Institutional Report**

2019-2020: College of Business Administration (Combined)

## CAT Overview: Descriptive Statistics for CAT Total Score Sam Houston State University: 2019-2020: College of Business Administration (Combined)





	Ν	Min.	Max.	Mean	Std. Dev
Time Spent (in minutes)	265	0	114	35	24

#### **CAT Demographics: Descriptive Statistics for Sample**

		Freq.	Freq. %	
Gender	Male	126	47.5%	
Gender	Female	139	52.5%	
	Freshman	2	0.8%	
Class	Sophomore	20	7.5%	
Standing	Junior	107	40.4%	
	Senior	136	51.3%	
Class	Undergraduate	258	100.0%	
Class	Graduate	0	0.0%	
	≤ 20 years	51	20.2%	
Age	21-25 years	163	64.4%	
	≥ 26 years	39	15.4%	

		Freq.	Freq. %
	Excellent	188	70.9%
Proficiency	Very Good	64	24.2%
with the English	Good	11	4.2%
Language*	Fair	2	0.8%
	Poor	0	0.0%

\* Self-rated

		Freq.	Freq. %
	White	183	69.1%
	Black or African American	43	16.2%
Race**	American Indian or Alaska Native	9	3.4%
Race	Asian	8	3.0%
	Native Hawaiian or Other Pacific Islander	0	0.0%
	Other Race	29	10.9%

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

	Freq.	Freq. %
Spanish/Hispanic/Latino Ethnicity	70	26.4%
Considered English primary language?	240	90.6%

#### CAT Breakdown: Frequency of Points Awarded for Each Question

# Sam Houston State University: 2019-2020: College of Business Administration (Combined)

	Skill Assessed by CAT Question	Points Awarded	Freq.	Institution
Q1	Summarize the pattern of results in a graph without making inappropriate inferences.	0	72	27.2%
		1	193	72.8%
		0	123	46.4%
Q2	Evaluate how strongly correlational-type data supports a hypothesis.	1	73	27.5%
		2	32	12.1%
		3	37	14.0%
		0	137	51.7%
Q3	Provide alternative explanations for a pattern of results that has many possible	1	73	27.5%
	causes.	2	53	20.0%
		3	2	0.8%
		0	146	55.1%
~	Hentify additional information products a synthesis	1	93	35.1%
Q4	Identify additional information needed to evaluate a hypothesis.	2	24	9.1%
		3	1	0.4%
		4	1	0.4%
Q5	Evaluate whether spurious information strongly supports a hypothesis.	0	83	31.3%
		1	182	68.7%
		0	65	24.5%
Q6	Provide alternative explanations for spurious associations.	1	80	30.2%
		2	103	38.9%
		3	17	6.4%
07	Hentify additional information products any luctor a hypothesis	0	243	91.7%
Q7	Identify additional information needed to evaluate a hypothesis.	1	21	7.9%
		2	1	0.4%
Q8	Determine whether an invited inference is supported by specific information.	0	143	54.0%
		1	122	46.0%
00	Provide relevant alternative interpretations for a specific set of results.	0	140	52.8%
Q9	Provide relevant alternative interpretations for a specific set of results.	1	122	46.0%
		2	3	1.1%
		0	2	0.8%
Q10	Separate relevant from irrelevant information when solving a real world problem	1 2	15	5.7%
QIU	Separate relevant from irrelevant information when solving a real-world problem.		48	18.1% 40.4%
		3 4	107 93	
		4		35.1%
Q11	Use and apply relevant information to evaluate a problem.	1	69 171	26.0%
GII	טשי מוש מארו וויטווומווטוו וט פימועמופ מ אוטטופווו.	2	171 25	64.5% 9.4%
		0	55	20.8%
Q12	Use basic mathematical skills to help solve a real-world problem.	1	210	79.2%
		0	112	42.3%
		1	99	37.4%
Q13	Identify suitable solutions for a real-world problem using relevant information.	2	41	15.5%
		3	13	4.9%
		0	119	44.9%
		1	37	14.0%
	Identify and explain the best solution for a real-world problem using relevant	2	0	0.0%
Q14	information.	3	29	10.9%
		4	78	29.4%
		5	2	0.8%
		0	226	85.3%
		1	220	9.1%
Q15	Explain how changes in a real-world problem situation might affect the solution.	2	13	4.9%
		-	10	

					Institutional/Departmental Profile		
			Sam Ho	ousto	n State University: 2019-2020: College of Business Administration	(Combined)	
Evaluate and	Problem	blem Creative	Effective			Institution/	Department
Interpret Info	Solving	Thinking	Comm.		Skill Assessed by CAT Question	Mean	Avg. % of Attainable Points
х				Q1	Summarize the pattern of results in a graph without making inappropriate inferences.	0.73	73%
х			х	Q2	Evaluate how strongly correlational-type data supports a hypothesis.	0.94	31%
		х	х	Q3	Provide alternative explanations for a pattern of results that has many possible causes.	0.70	23%
	х	х	х	Q4	Identify additional information needed to evaluate a hypothesis.	0.56	14%
х				Q5	Evaluate whether spurious information strongly supports a hypothesis.	0.69	69%
		х	х	Q6	Provide alternative explanations for spurious associations.	1.27	42%
	х	х	х	Q7	Identify additional information needed to evaluate a hypothesis.	0.09	4%
х				Q8	Determine whether an invited inference is supported by specific information.	0.46	46%
		х	х	Q9	Provide relevant alternative interpretations for a specific set of results.	0.48	24%
х	х			Q10	Separate relevant from irrelevant information when solving a real-world problem.	3.03	76%
х	х		х	Q11	Use and apply relevant information to evaluate a problem.	0.83	42%
	х			Q12	Use basic mathematical skills to help solve a real-world problem.	0.79	79%
х	х			Q13	Identify suitable solutions for a real-world problem using relevant information.	0.83	28%
х	х		Х	Q14	Identify and explain the best solution for a real-world problem using relevant information.	1.68	34%
	х	х	х	Q15	Explain how changes in a real-world problem situation might affect the solution.	0.21	7%
					CAT Total Score	13.28	35%

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

					Senior CAT Means Comparison Report				
			Sam Ho	ousto	n State University: 2019-2020: College of Business Administra	tion (Com	bined)		
Evaluate and Problem Creative Ef		Effective		Skill Assessed by CAT Question	Institution		National <sup>a</sup>		
Interpret Info	Solving	Thinking	Comm.		Skill Assessed by CAT Question	Mean	Mean	Probability of difference <sup>b</sup>	Effect Size <sup>c</sup>
х				Q1	Summarize the pattern of results in a graph without making inappropriate inferences.	0.73	0.70		
х			х	Q2	Evaluate how strongly correlational-type data supports a hypothesis.	0.94	1.20	***	24
		Х	Х	Q3	Provide alternative explanations for a pattern of results that has many possible causes.	0.70	1.15	***	48
	х	х	х	Q4	Identify additional information needed to evaluate a hypothesis.	0.56	1.10	***	56
х				Q5	Evaluate whether spurious information strongly supports a hypothesis.	0.69	0.75	*	14
		х	х	Q6	Provide alternative explanations for spurious associations.	1.27	1.53	***	29
	х	х	х	Q7	Identify additional information needed to evaluate a hypothesis.	0.09	0.56	***	95
х				Q8	Determine whether an invited inference is supported by specific information.	0.46	0.66	***	41
		х	х	Q9	Provide relevant alternative interpretations for a specific set of results.	0.48	0.85	***	58
х	Х			Q10	Separate relevant from irrelevant information when solving a real-world problem.	3.03	3.13		
х	х		х	Q11	Use and apply relevant information to evaluate a problem.	0.83	0.95	**	19
	х			Q12	Use basic mathematical skills to help solve a real-world problem.	0.79	0.82		
х	х			Q13	Identify suitable solutions for a real-world problem using relevant information.	0.83	1.10	***	28
х	х		х	Q14	Identify and explain the best solution for a real-world problem using relevant information.	1.68	2.24	***	30
	х	х	х	Q15	Explain how changes in a real-world problem situation might affect the solution.	0.21	0.92	***	87
					CAT Total Score	13.28	17.64	***	80

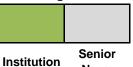
<sup>a.</sup> National user norms updated Fall 2019

 $^{\text{D.}}$  \* p<.05  $\,$  \*\*p<.01  $\,$  \*\*\*p<.001 (2 –tailed) Does not Account for entering ACT/SAT.

<sup>c.</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.

Questions 1-4 present students with a scenario and graph. In this section of questions, students will be asked to summarize the trend of the graph, evaluate the strength of the graph in supporting an argument, provide potential alterniatve explantions for the trend of the graph, and indentify additional inforomation that would be useful to more fully understand the situation. This set of questions aligns with CAT App Skill Set 1.

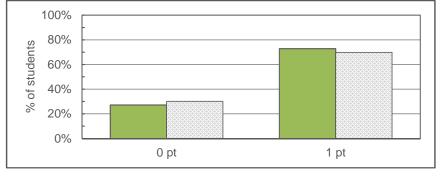
Legend



Norm

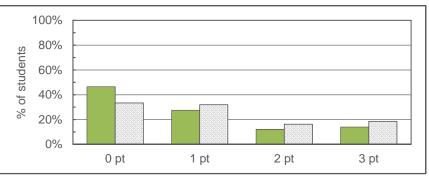
#### Q1 Summarize the pattern of results in a graph without making inappropriate inferences.

A point is awarded for responses that describe the trend in the graph AND do not attribute the findings to a single cause when there are a variety of potential explanations.



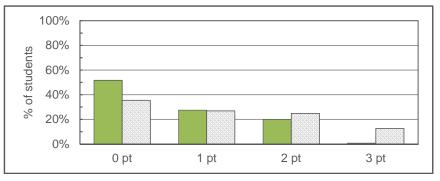
## Q2 Evaluate how strongly correlational-type data supports a hypothesis.

Points are awarded for responses that explain the limitations of the correlation observed and the possibility of alternative explanations.



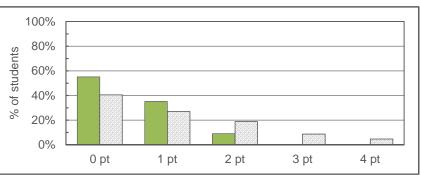
## Q3 Provide alternative explanations for a pattern of results that has many possible causes.

Points are awarded for the number of viable alternative explanations provided for the reported findings.



# Q4 Identify additional information needed to evaluate a hypothesis.

Points are awarded for clearly identifying types of information needed to evaluate competing hypotheses.



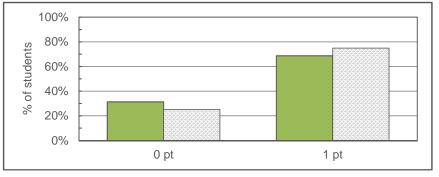
Questions 5-7 present students with a hypothesis and two pieces of evidence. In this section of questions, students will be asked to evaluate the strength of the evidence in supporting a hypothesis, provide potential alternative explantions for the evidence, and identify additional information that would be useful to more fully evaluate the hypothesis. This set of questions aligns with CAT App Skill Set 1.



Norm

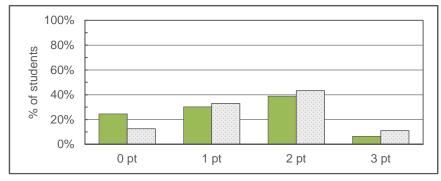
#### Q5 Evaluate whether spurious information strongly supports a hypothesis.

A point is awarded for recognizing that spurious information does not strongly support a hypothesis.



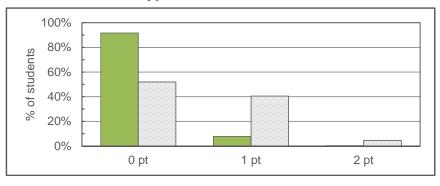
#### Q6 Provide alternative explanations for spurious associations.

Points are awarded for explaining the spurious nature of the evidence.



## Q7 Identify additional information needed to evaluate a hypothesis.

Points are awarded for clearly identifying new information that needs to be obtained to evaluate the hypothesis.



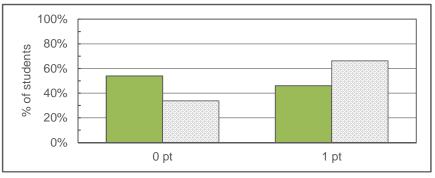
Questions 8-9 present students with the results of a survey and a corresponding marketing claim. In this section of questions, students will be asked to evaluate whether the marketing claim is supported by the results of the survey and to provide potential alternative explantions for the results of the survey. This set of questions aligns with CAT App Skill Set 1.



Institution Norm

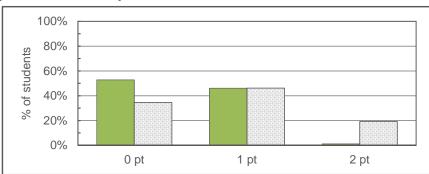
#### Q8 Determine whether an invited inference is supported by specific information.

A point is awarded for indicating the provided evidence does not strongly support the hypothesis.



#### Q9 Provide relevant alternative interpretations for a specific set of results.

Points are awarded for providing alternative interpretations of the findings.

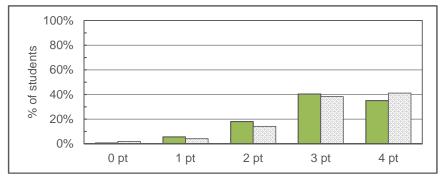


Questions 10-15 present students with a real-world problem-solving task. In this section of questions, students will be asked to evaluate the relevance of available information, read relevant information, evaluate a suggested solution based on relevant information, solve a basic mathematical problem needed to solve the problem, identify a group of appropriate solutions, identify the best solution for a the problem situation, and identify changes to the problem situation that would change the solution. This set of questions aligns with CAT App Skill Set 2.

Legend Institution Senior Norm

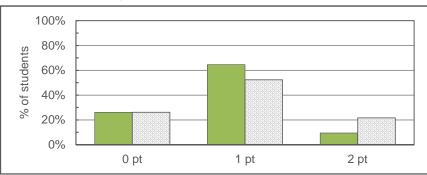
#### Q10 Separate relevant from irrelevant information when solving a real-world problem.

Points are awarded for correctly identifying information relevant to solving the problem based on the descriptive titles of the avaliable information.



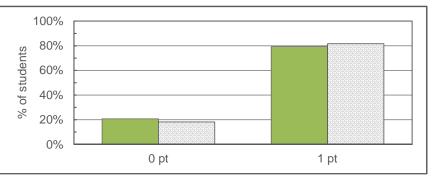
#### Q11 Use and apply relevant information to evaluate a problem.

Points are awarded for applying relevant information from the additional information to the problem.

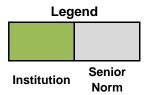


## Q12 Use basic mathematical skills to help solve a real-world problem.

A points is awarded for performing a basic mathematical calculation needed to help solve a real-world problem.

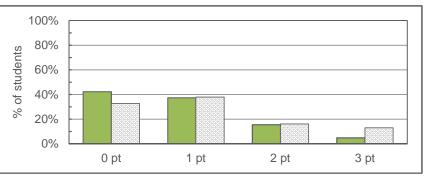


Questions 10-15 present students with a real-world problem-solving task. In this section of questions, students will be asked to evaluate the relevance of available information, read relevant information, evaluate a suggested solution based on relevant information, solve a basic mathematical problem needed to solve the problem, identify a group of appropriate solutions, identify the best solution for a the problem situation, and identify changes to the problem situation that would change the solution. This set of questions aligns with CAT App Skill Set 2.



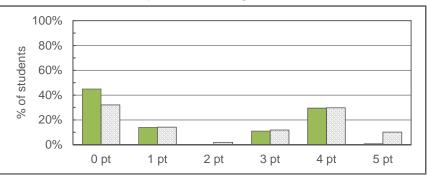
## Q13 Identify suitable solutions for a real-world problem using relevant information.

Points are awarded for identifying viable solutions that could solve a real-world problem.



#### Q14 Identify and explain the best solution for a real-world problem using relevant information.

Points are awarded for identify and explaining the best solution to a realworld problem.



## Q15 Explain how changes in a real-world problem situation might affect the solution.

Points are awarded for identifying a number of changes to the real-world problem situation and explaining how the opitmal solution would change.

