

Academic Challenge: Quantitative Reasoning

Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote student learning by challenging and supporting them to engage in various forms of deep learning. Four Engagement Indicators are part of this theme: *Higher-Order Learning*, *Reflective & Integrative Learning*, *Learning Strategies*, and *Quantitative Reasoning*. Below and on the next page are three views of your results alongside those of your comparison groups.

Mean Comparisons

Engagement Indicator	St. Olaf Mean	Your first-year students compared with					
		Strategic		ACM/GLCA		Carnegie	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Quantitative Reasoning	27.6	28.2	-.04	27.9	-.02	27.8	-.01

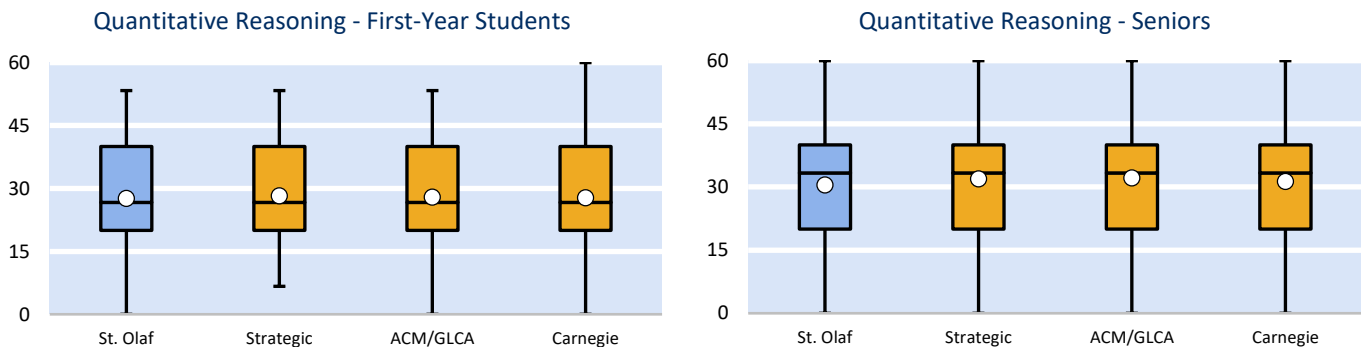
Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and *p* before rounding; **p* < .05, ***p* < .01, ****p* < .001 (2-tailed).

Mean Comparisons

Engagement Indicator	St. Olaf Mean	Your seniors compared with					
		Strategic		ACM/GLCA		Carnegie	
		Mean	Effect size	Mean	Effect size	Mean	Effect size
Quantitative Reasoning	30.5	31.9	-.09	32.2	-.10	31.3	-.05

Notes: Results weighted by institution-reported sex and enrollment status (and institution size for comparison groups); Effect size: Mean difference divided by pooled standard deviation; Symbols on the Overview page are based on effect size and *p* before rounding; **p* < .05, ***p* < .01, ****p* < .001 (2-tailed).

Score Distributions



Notes: Each box-and-whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot represents the mean score. Refer to Detailed Statistics for your institution's sample sizes.

Academic Challenge: Quantitative Reasoning (continued)

Performance on Indicator Items - First-Year Students

Quantitative Reasoning	St. Olaf	Percentage point difference ^a between your FY students and		
		Strategic	ACM/GLCA	Carnegie
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
	%			
6a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	50	-0	+0	-1
6b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	37	-1	-2	-2
6c. Evaluated what others have concluded from numerical information	42	-2	+1	+2

Performance on Indicator Items - Seniors

Quantitative Reasoning	St. Olaf	Percentage point difference ^a between your seniors and		
		Strategic	ACM/GLCA	Carnegie
<i>Percentage of students who responded that they "Very often" or "Often"...</i>				
	%			
6a. Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	51	-6	-7	-5
6b. Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	43	-4	-6	-3
6c. Evaluated what others have concluded from numerical information	55	-1	-0	+3

Notes: Refer to your *Frequencies and Statistical Comparisons* report for full distributions and significance tests. Item numbering corresponds to the survey facsimile included in your *Institutional Report* and available on the NSSE website.

a. Percentage point difference = Institution percentage – Comparison group percentage. Because results are rounded to whole numbers, differences of less than 1 point may or may not display a bar. Small, but nonzero differences may be represented as +0 or -0.