

General Education Quantitative Reasoning Follow Up Assessment Spring 2024

In spring 2024, the General Education – Quantitative Reasoning Work Group conducted a follow up to the 2021 primary assessment. The outcome states, “Use quantitative analytical skills to interpret and evaluate problems.” For the 2024 follow-up assessment, the Work Group utilized the same assessment tool used in 2021, and courses that were assessed in the large-scale assessment were asked to participate. The same quantitative rubric was used to score student work in three areas: graph reading; table reading and evaluation; and number sense. The assessment tool consisted of six multiple-choice questions and faculty were asked to administer the assessment and submit their work to the Outcomes Assessment Office. For the 2024 follow-up assessment, 1,091 student assessments were scored.

The tables below show the high-level results of the 2021 full-scale assessment and the 2024 follow-up assessment.

Based on the results in Table 1, all student groups saw a decrease in overall results, with the students in the 45+ credit hour group showing a decrease of 9.1%. These results will be used to help inform the next assessment of this learning outcome and will be addressed in the Quantitative Reasoning Work Group.

Table 1. Overall Quantitative Reasoning Results in 2021 and 2024

2021 Assessment		2024 Follow Up	
Earned Credit Hours	% Answering at Least 5 of 6 Questions Correctly	% Answering at Least 5 of 6 Questions Correctly	Earned Credit Hours
0-15 (N=141)	63.4	48.1	0-15 (N=129)
16-30 (N=243)	67.2	50.7	16-30 (N=306)
31-44 (N=270)	58.9	53.4	31-44 (N=264)
45+ (N=637)	60.9	51.8	45+ (N=392)
TOTAL (N=1,291)	61.7	51.4	TOTAL (N=1,091)

Tables 2 and 3 show the percentage of students in 2021 and 2024 that scored each question correctly by the number of credit hours earned.

When looking at the breakdown of questions in 2021 compared to 2024, students’ performance decreased significantly in Q1, graph reading, and also decreased in Q2 and Q3, (table reading and table evaluation). However, in 2024, students performed better in 2024 in Q6, number sense, compared to the 2021 assessment. Prior to the next assessment of this outcome, further analysis of this data will need to be evaluated to incorporate next steps for student improvement.

Table 2. Overall Quantitative Reasoning Results by Question in 2021

Earned Credit Hours	% Correct by Question					
	Q1	Q2	Q3	Q4	Q5	Q6
	(Graph Reading)		(Table Reading)	(Table Evaluation)	(Number Sense)	
0 - 15 (n=141)	73	82	92	86	84	61
16 - 30 (n=243)	73	78	93	82	84	66
31 - 44 (n=270)	71	83	89	81	79	62
45 or more (n=637)	75	76	91	82	83	59
All students (n=1,291)	73	78	91	82	82	61

Table 3. Overall Quantitative Reasoning Results by Question in 2024

Earned Credit Hours	% Correct by Question					
	Q1	Q2	Q3	Q4	Q5	Q6
	(Graph Reading)		(Table Reading)	(Table Evaluation)	(Number Sense)	
0 - 15 (n=129)	49	68	86	66	78	71
16 - 30 (n=306)	51	71	84	72	84	67
31 - 44 (n=264)	53	76	85	71	85	69
45 or more (n=392)	55	77	83	70	82	66
All students (n=1,091)	53	74	84	70	83	68

Next Steps:

The next full-scale General Education Quantitative Reasoning Assessment will be conducted in FY2026. More information on Quantitative Reasoning assessment and improvement resources can be found on the [Quantitative Reasoning General Education HIP page](#).