



CIRP College Senior Survey 2024

Selected Items Related to Critical Thinking and Reasoning

Demographics and Response Rates

Responses	170
Men/ Trans Men	82
Women/Trans Women	70
Genderqueer	16

Comparison Group:	5 Private, Nonsectarian 4-Year Colleges (High Selectivity) (n = 481)
Longitudinal:	147 matched pairs from first to senior year (86%)

Background:

The CIRP Senior Survey (CSS) focuses on a broad range of outcomes and post-college goals and plans, including academic achievement and engagement, student-faculty interaction, cognitive and affective development, student goals and values, satisfaction with college, degree aspirations and experience, and employment and advanced education plans. This report is focused on items on the CSS that relate to the student learning outcome of *critical thinking and reasoning*. Results are first presented for HMC seniors in comparison with seniors at the group of comparison institutions listed above. Second, results are paired with the CIRP Freshman Survey to provide longitudinal data on students' growth during their undergraduate experience. This can be used to understand the impact of Harvey Mudd College.

HMC participates in the CSS survey in the spring as part of a survey rotation in [selected years](#) and surveys all seniors (graduating and non-graduating).

The results of the senior survey are used across campus-- in departmental program reviews to evaluate growth and development on student learning outcomes; in Student Affairs to understand the impact of the co-curriculum; in Career Services to establish anticipated career and graduate school activities; and by the College overall in accreditation and assessment activities.

Highlights:

- Overall, outcomes for HMC seniors very closely match those for our liberal arts peers. HMC seniors report high levels of engagement with the habits of mind associated with liberal arts colleges. Responses to the item how often in the past year did you: seek solutions to problems and explain them to others matched the mean found at our peer institutions. HMC seniors showed similar responses to "supporting their opinions with a logical argument", "exploring topics on your own, even though it was not required for a class", "accepting mistakes as part of the learning process", and "looking up scientific research articles and resources."

- Looking longitudinally, there was a statistically significant increase from first year to senior year in “accepting mistakes as part of the learning process” and “looking up scientific research articles and resources.”

SENIORS				
	<u>HMC</u>	<u>Comp</u>	<u>Diff</u>	<u>Sig</u>
	n = 170	n = 481		
How often in the past year did you:				
<i>1 = Not at All, 2 = Occasionally, 3 = Frequently</i>				
Support your opinions with a logical argument	2.82	2.83		
Seek solutions to problems and explain them to others	2.82	2.82		
Explore topics on your own, even though it was not required for a class	2.52	2.53		
Accept mistakes as part of the learning process	2.78	2.77		
Look up scientific research articles and resources	2.64	2.61		
Since entering college, indicate how often you:				
<i>1 = Not at All, 2 = Occasionally, 3 = Frequently</i>				
Challenged a professor's ideas in class	1.60	1.63		
In the past year, how often have you:				
<i>1 = Not at All, 2 = Occasionally, 3 = Frequently</i>				
Felt that faculty encouraged me to ask questions and participate in discussions	2.52	2.54		

LONGITUDINAL (2018-2021 first-years and 2024 seniors)					
	<u>HMC</u> <u>FY</u>	<u>HMC</u> <u>SR</u>	<u>Change</u>	<u>Diff</u>	<u>Sig</u>
n = 119					
How often in the past year did you:					
<i>1 = Not at All, 2 = Occasionally, 3 = Frequently</i>					
Support your opinions with a logical argument	2.72	2.83	0.11		
Seek solutions to problems and explain them to others	2.69	2.80	0.11		
Explore topics on your own, even though it was not required for a class	2.49	2.48	-0.0		
Accept mistakes as part of the learning process	2.55	2.78	0.23	▲	p < .001
Look up scientific research articles and resources	2.38	2.64	0.26	▲	p < .001