



CIRP College Senior Survey 2025

Selected Items Related to Critical Thinking and Reasoning

Demographics and Response Rates

Responses 120

Men/ Trans Men 62

Women/Trans Women 49

Genderqueer 7

Comparison Group: 6 Private, Nonsectarian 4-Year Colleges (High Selectivity) (n = 549)

Longitudinal: 98 matched pairs from first to senior year (82%)

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 spring for [selected years](#) and surveys all seniors.

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

Highlights:

- HMC seniors report high levels of engagement with the habits of mind associated with liberal arts colleges. They were significantly more likely than seniors at peer institutions to seek solutions to problems and explain them to others, and showed similar engagement with supporting their opinions with a logical argument, exploring topics on their own, even though they were 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 seeking solutions to problems and explaining them to others; accepting mistakes as part of the learning process; and looking up scientific research articles and resources.

SENIORS				
	<u>HMC</u> n = 120	<u>Comp</u> n = 549	<u>Diff</u>	<u>Sig</u>
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	2.88	2.87		
Seek solutions to problems and explain them to others	2.91	2.83	▲	p < .01
Explore topics on your own, even though it was not required for a class	2.55	2.56		
Accept mistakes as part of the learning process	2.75	2.74		
Look up scientific research articles and resources	2.69	2.62		
Since entering college, indicate how often you:				
<i>1 = Not at All, 2 = Occasionally, 3 = Frequently</i>				
Challenged a professor's ideas in class	1.58	1.60		
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	2.62	2.65		

LONGITUDINAL (2019-2022 first-years and 2025 seniors)					
n = 119	<u>HMC</u> <u>FY</u>	<u>HMC</u> <u>SR</u>	<u>Change</u>	<u>Diff</u>	<u>Sig</u>
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	2.78	2.89	0.11		
Seek solutions to problems and explain them to others	2.77	2.94	0.17	▲	p < .001
Explore topics on your own, even though it was not required for a class	2.44	2.51	0.07		
Accept mistakes as part of the learning process	2.52	2.78	0.26	▲	p < .001
Look up scientific research articles and resources	2.19	2.69	0.50	▲	p < .001