



CIRP College Senior Survey 2023

Selected Items Related to Critical Thinking and Reasoning

Demographics and Response Rates

Responses	163
Men/ Trans Men	73
Women/Trans Women	77
Genderqueer	13

Comparison Group:	6 Private, Nonsectarian 4-Year Colleges (High Selectivity) (n = 450)
Longitudinal:	158 matched pairs from first to senior year (93%)

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 *societal impact and application*. 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 throughout the 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:

- HMC seniors report high levels of engagement with the habits of mind (behaviors and traits associated with academic success. These behaviors are seen as the foundation for lifelong learning). They reported very similarly to seniors at peer institutions to “support their opinions with a logical argument”, “seek solutions to problems and explain them to others”, “explore topics on their own even though they were not required for a class”, “accept mistakes as part of the learning process”, and “look up scientific research articles and resources”.
- They also reported very similarly to their peers that they “felt faculty encouraged them to ask questions and participate in discussions”. However, HMC seniors were less likely to report they “challenged a professor’s ideas in class” compared to other seniors at peer institutions.

- 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>	<u>Comp</u>	<u>Diff</u>	<u>Sig</u>
	n = 163	n = 450		
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	2.85		
Seek solutions to problems and explain them to others	2.89	2.84		
Explore topics on your own, even though it was not required for a class	2.55	2.57		
Accept mistakes as part of the learning process	2.80	2.76		
Look up scientific research articles and resources	2.62	2.56		
Since entering college, indicate how often you:				
<i>1 = Not at All, 2 = Occasionally, 3 = Frequently</i>				
Challenged a professor's ideas in class	1.52	1.64	▽	p < .01
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	2.54	2.56		

LONGITUDINAL (2017-2020 first-years and 2023 seniors)					
	<u>HMC</u> <u>FY</u>	<u>HMC</u> <u>SR</u>	<u>Change</u>	<u>Diff</u>	<u>Sig</u>
n = 158					
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	2.83	2.90	0.07		
Seek solutions to problems and explain them to others	2.71	2.87	0.16	△	p < .01
Explore topics on your own, even though it was not required for a class	2.45	2.52	0.07		
Accept mistakes as part of the learning process	2.46	2.79	0.33	▲	p < .001
Look up scientific research articles and resources	2.36	2.40	0.34	▲	p < .001