



CIRP College Senior Survey 2017

Selected Items Related to Critical Thinking and Reasoning

Demographics and Response Rates

Responses 179

Male 92

Female 87

Comparison Group: 7 Private, Nonsectarian 4-Year Colleges (Very High Selectivity) (n = 2,226)

Longitudinal: 163 matched pairs from first to senior year

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 institutions listed above as “Comparison Group.” 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 annually each spring 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:

- Like peers, HMC seniors report high levels of engagement with the habits of mind associated with critical thinking: supporting your opinions with a logical argument, seeking solutions to problems and explaining them to others, evaluating the quality or reliability of the information they received, seeking alternative solutions to a problem, and looking up scientific research articles and resources.
- HMC seniors reported accessing library resources electronically less frequently than did their peers. They were also less likely to report challenging a professor’s ideas in class.

- HMC seniors reported that they felt that faculty encouraged them to ask questions and participate in class more than their peers at the comparison schools.
- HMC seniors were more likely to agree with the statement that “this institution has contributed to my critical thinking skills” than seniors at the comparison institutions.
- Looking longitudinally, there were statistically significant increases from first to senior year in evaluating the quality or reliability of information received and looking up scientific research articles and resources.

SENIORS				
	HMC	Comp	Diff	Sig
	n = 179	n = 2,226		
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	2.80	2.73		
Seek solutions to problems and explain them to others	2.74	2.69		
Evaluate the quality or reliability of information you received	2.66	2.63		
Seek alternative solutions to a problem	2.56	2.61		
Look up scientific research articles and resources	2.57	2.50		
Since entering college, indicate how often you:				
<i>1 = Not at All, 2 = Occasionally, 3 = Frequently</i>				
Accessed your campus' library resources electronically	2.21	2.48	▼	p < .001
Challenged a professor's ideas in class	1.60	1.75	▼	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	2.70	2.57	▲	p < .01
This institution has contributed to my:				
<i>1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree</i>				
Critical thinking skills	3.71	3.58	▲	p < .01

LONGITUDINAL (2011-2014 first-years and 2017 seniors)					
n = 163	<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	2.83	2.80	-0.03		
Seek solutions to problems and explain them to others	2.79	2.74	-0.05		
Evaluate the quality or reliability of information you received	2.56	2.67	0.11	▲	p < .05
Seek alternative solutions to a problem	2.53	2.57	0.04		
Look up scientific research articles and resources	2.23	2.58	0.35	▲	p < .001