



CIRP College Senior Survey 2016

Selected Items Related to Critical Thinking and Reasoning

Demographics and Response Rates

| | |
|-------------------|--|
| Responses | 170 |
| Male | 92 |
| Female | 78 |
| Comparison Group: | 22 Private, Nonsectarian 4-Year Colleges (n = 4,768) |
| Longitudinal: | 156 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:

- HMC seniors report engaging in two of the habits of mind associated with critical thinking: supporting your opinions with a logical argument and seeking solutions to problems and explaining them to others at a statistically significantly higher rate than their peers at the comparison schools.
- HMC seniors reported less frequently accessing library resources electronically than did their peers. They were also less likely to report challenging a professor’s ideas in class.
- 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, the only statistically significant increase was for looking up scientific research articles and resources.

| SENIORS | | | | |
|--|------------|-------------|-------------|------------|
| | <u>HMC</u> | <u>Comp</u> | <u>Diff</u> | <u>Sig</u> |
| | n = 170 | n = 4,768 | | |
| 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 | 2.84 | 2.73 | ▲ | p < .01 |
| Seek solutions to problems and explain them to others | 2.80 | 2.71 | ▲ | p < .05 |
| Evaluate the quality or reliability of information you received | 2.69 | 2.64 | | |
| Seek alternative solutions to a problem | 2.58 | 2.62 | | |
| Look up scientific research articles and resources | 2.59 | 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 | 2.49 | ▼ | p < .001 |
| Challenged a professor's ideas in class | 1.60 | 1.74 | ▼ | 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 | 2.63 | 2.62 | | |
| Please indicate your agreement with each of the following statements. This institution has contributed to my: | | | | |
| <i>1=Strongly disagree, 2=Disagree, 3=Agree, 4=Strongly agree</i> | | | | |
| Critical thinking skills | 3.66 | 3.54 | ▲ | p < .05 |

| LONGITUDINAL (2010-2012 first-years and 2016 seniors) | | | | | |
|--|------------|------------|---------------|-------------|------------|
| | <u>HMC</u> | <u>HMC</u> | | | |
| n = 156 | <u>FY</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 | 2.84 | 2.83 | -0.01 | | |
| Seek solutions to problems and explain them to others | 2.80 | 2.79 | -0.01 | | |
| Evaluate the quality or reliability of information you | 2.63 | 2.68 | 0.05 | | |
| Seek alternative solutions to a problem | 2.52 | 2.57 | 0.05 | | |
| Look up scientific research articles and resources | 2.40 | 2.59 | 0.19 | ▲ | p < .01 |