



**National Survey of Student Engagement  
2023  
Selected Items Related to Quantitative Reasoning**

**Dates of Administration:** March 2023 - April 2023  
**Method of Administration:** Web survey (Administered through NSSE)

**Demographics and Response Rates:**

	<b>First Years</b>	<b>Seniors</b>
<b>Overall Response Rate</b>	<b>34% (82/241)</b>	<b>32% (67/209)</b>
% Female	51%	50%
% Am. Indian or AK Native	0%	0%
% Asian	13%	12%
% Black or African American	2%	5%
% Hispanic or Latino	25%	16%
% White	28%	39%
% International/foreign born	9%	10%
% Two or more races	19%	9%
% Unknown	2%	8%

**Background:**

HMC participates in the National Survey of Student Engagement (NSSE) on a cycle<sup>1</sup> with other institutional level surveys. NSSE surveys are sent in the spring to all first years and seniors asking them about the characteristics and quality of their undergraduate experience. It includes 10 Engagement Indicators (Higher-Order Learning, Reflective and Integrative Learning, Learning Strategies, Quantitative Reasoning, Collaborative Learning, Discussions with Diverse Others, Student-Faculty Interaction, Effective Teaching Practices, Quality of Interactions, and Supportive Environment) and High Impact Practices (Learning Communities, Service-Learning, Research with Faculty, Internships, Study Abroad, and Capstones). Additionally, NSSE allows campuses to add additional topical modules to their survey. This year, HMC participated in Inclusiveness & Engagement with Diversity module.

NSSE results are used throughout the campus in departmental program reviews to evaluate growth and development on student learning outcomes and by the college overall in its improvement efforts.

**Highlights:**

- For first years, scores on all the quantitative reasoning items were significantly higher than our peers in highly selective baccalaureate colleges.
- For seniors, we were significantly higher than our peers on reaching conclusions based on analysis of numerical information by 0.5 (3.2 vs. 2.7) and overall contribution of an HMC education to the development of analyzing numerical and statistical information by 0.5 point higher (3.5 vs. 2.5) with the statistical significance of p<001.

<sup>1</sup> Assessment and Accreditation Committee has worked with OIRE to develop a [cycle for the modules](#) that are relevant to HMC.

FIRST YEARS				
	HMC	Peer	Comp	Sig
	n = 82	n = 6,459		
<b>During the current school year, about how often have you done the following?</b>				
<i>1 = never; 2 = sometimes; 3 = often; 4 = very often</i>				
Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	3.0	2.7	▲	p<.001
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	2.8	2.5	▲	p <.001
Evaluated what others have concluded from numerical information	2.7	2.5	△	p<.01
<b>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?</b>				
<i>1=very little; 2 = some; 3 = quite a bit; 4 = very much</i>				
Analyzing numerical and statistical information	3.2	2.6	▲	p <.001

SENIORS				
	HMC	Peer	Comp	Sig
	n = 67	n = 4,725		
<b>During the current school year, about how often have you done the following?</b>				
<i>1 = never; 2 = sometimes; 3 = often; 4 = very often</i>				
Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)	3.2	2.7	▲	p<.001
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	2.8	2.6		
Evaluated what others have concluded from numerical information	2.8	2.7		
<b>How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?</b>				
<i>1=very little; 2 = some; 3 = quite a bit; 4 = very much</i>				
Analyzing numerical and statistical information	3.5	3.0	▲	p<.001

- ▲ HMC students' average was significantly higher (p<.001)
- △ HMC students' average was significantly higher (p<.01)
- △ HMC students' average was significantly higher (p<.05)
- ▼ HMC students' average was significantly lower (p<.001)
- ▽ HMC students' average was significantly lower (p<.01)
- ▽ HMC students' average was significantly lower (p<.05)