



National Survey of Student Engagement 2019 Selected Items Related to Quantitative Reasoning

Dates of Administration: February 14, 2019-March 12, 2019
Method of Administration: Web survey (Administered through NSSE)

Demographics and Response Rates:

	First Years	Seniors
Overall Response Rate	53% (124/236)	46% (96/208)
% Female	52%	50%
% Am. Indian or AK Native	0%	2%
% Asian	24%	21%
% Black or African American	2%	1%
% Hispanic or Latino	19%	7%
% White	30%	39%
% International/foreign born	11%	16%
% Two or more races	8%	11%
% Unknown	6%	4%

Background:

The National Survey of Student Engagement (NSSE) asks first year and senior students 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). Quantitative literacy—the ability to use and understand numerical and statistical information in everyday life— is an increasingly important outcome of higher education. All students, regardless of major, should have ample opportunities to develop their ability to reason quantitatively—to evaluate, support, and critique arguments using numerical and statistical information.

HMC participates in the NSSE survey annually each spring, surveying all first years and graduating seniors. 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, while for seniors, we were only significantly higher than our peers on two items: reaching conclusions based on analysis of numerical information, and the overall contribution of an HMC education to the development of analyzing numerical and statistical information.

FIRST YEARS				
	<u>HMC</u>	<u>Peer</u>	<u>Comp</u>	<u>Sig</u>
	n = 124	n = 8,203		
During the current school year, about how often have you done the following?				
<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	2.5	▲	p <.001
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	2.8	2.3	▲	p <.001
Evaluated what others have concluded from numerical information	2.7	2.4	▲	p <.001
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?				
<i>1=very little; 2 = some; 3 = quite a bit; 4 = very much</i>				
Analyzing numerical and statistical information	3.3	2.5	▲	p <.001

SENIORS				
	<u>HMC</u>	<u>Peer</u>	<u>Comp</u>	<u>Sig</u>
	n = 96	n = 7,180		
During the current school year, about how often have you done the following?				
<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.)	2.9	2.6	▲	p<.001
Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)	2.3	2.5		
Evaluated what others have concluded from numerical information	2.4	2.5		
How much has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?				
<i>1=very little; 2 = some; 3 = quite a bit; 4 = very much</i>				
Analyzing numerical and statistical information	3.4	2.9	▲	p<.001