What our Students Tell Us about Their Learning: Information from the National Survey of Student Engagement

Katherine Cermak, Associate Dean, Planning & Assessment

Spring 2018
Framework

• What is the National Survey of Student Engagement (NSSE)?
• Who participates?
• What does it measure?
• What does it tell us about the experiences of midshipmen?
What is it?

- Survey of 4-year undergraduate institutions. Measures student participation in programs and activities that have been correlated with learning and development

- NSSE items examine best practices in undergraduate education
Who participates?

- Over 1,500 bachelor’s degree-granting institutions from the US and Canada have participated.

- Institution types, sizes, and locations represented in NSSE are largely representative of U.S. baccalaureate institutions.

- Gold bars indicate USNA participation

<table>
<thead>
<tr>
<th>Year</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008*</td>
<td>769</td>
</tr>
<tr>
<td>2009</td>
<td>640</td>
</tr>
<tr>
<td>2010</td>
<td>595</td>
</tr>
<tr>
<td>2011*</td>
<td>751</td>
</tr>
<tr>
<td>2012</td>
<td>577</td>
</tr>
<tr>
<td>2013</td>
<td>621</td>
</tr>
<tr>
<td>2014*</td>
<td>713</td>
</tr>
<tr>
<td>2015</td>
<td>585</td>
</tr>
<tr>
<td>2016</td>
<td>557</td>
</tr>
<tr>
<td>2017*</td>
<td>725</td>
</tr>
</tbody>
</table>

- * Service Academy Consortium
  - (2008 – 2014: USMA, USMMA, and USAFA joined)
  - 2017 USCGA joined
High-Impact Practices (HIPs)

The figures below are from the NSSE and compare the percentage of students who participated in High-Impact Practices with those at institutions in our peer group. Both figures include participation in a learning community, service-learning and research with faculty. The Senior figure also includes participation in an internship or field experience, study abroad and culminating senior experience.

The National Survey of Student Engagement (NSSE) was completed by 450 first-year and 411 senior students in 2017 at Bucknell.
About 2 million students were invited to participate in NSSE 2017
- 517,850 responded

Population of USNA plebes and firsties were invited to participate
- 4/C 486 (43%)
- 1/C 382 (36%)

Service Academy Consortium
- 4/C 740 (32%)
- 1/C 523 (27%)
## Response Rate and Sampling Error

<table>
<thead>
<tr>
<th></th>
<th>First Year Students (4/C)</th>
<th>Seniors (1/C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Response Rate</td>
<td>43%</td>
<td>32%</td>
</tr>
<tr>
<td>Sampling Error (+/-)</td>
<td>3.4%</td>
<td>2.7%</td>
</tr>
</tbody>
</table>

## Response Rate by Gender w/in USNA

<table>
<thead>
<tr>
<th></th>
<th>First Year Students (4/C)</th>
<th>Seniors (1/C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent %</td>
<td>Population %</td>
<td>Weight (used in %s and Means)</td>
</tr>
<tr>
<td>Respondent %</td>
<td>Population %</td>
<td>Weight (used in %s and Means)</td>
</tr>
<tr>
<td>Female</td>
<td>31%</td>
<td>27%</td>
</tr>
<tr>
<td>Male</td>
<td>69%</td>
<td>73%</td>
</tr>
</tbody>
</table>
What does NSSE measure?

• **Student Engagement:**
  – Time and Energy devoted to academic studies and other educationally purposeful activities that are empirically linked with learning and personal development as well as other desired outcomes including persistence, satisfaction, and graduation.

• **Items ask:**
  – How college students spend their time – Related to the time and energy devoted to studies and educationally purposeful activities
  – How institutions influence students – Encouraging students to increase their learning through the availability of resources and use of effective educational practices
Why Measure Student Engagement?

Grounded in Empirical Research

Higher Education Researchers Ernest Pascarella and Patrick Terenzini, reviewed three decades of studies on college students. About 2,500 studies were conducted in the 1990s and more than 2,600 studies between 1970 and 1990.

Their conclusion: Student engagement is a central component of student learning.

NSSE Survey Content

Engagement in meaningful Academic Experiences

Engagement in High-Impact Practices

Student Learning & Development

Student Reactions to College

Student Background Information
Selected 2017 NSSE Results: United States Naval Academy
NSSE: Selected Results and Questions

• Highest/Lowest Performing Items Compared to Aggregate of NSSE 2016 and 2017 Cohorts
• Challenging Students to do Their Best Work
• Academic Emphasis/Time on Task
• Perceived Intellectual/Developmental Gains
• Satisfaction with Institution
• Service Academy Consortium Items
• Selected Comments
• Accessing NSSE Results On Line
### Highest/Lowest Performing Items: Freshmen

#### First-year

**Highest Performing Relative to NSSE 2016 and 2017 cohorts**
- Developing or clarifying a personal code of values/ethics \(^{b} \) (89%)
- Asked another student to help you understand course material \(^{a} \) (81%)
- Spent more than 15 hours per week preparing for class (70%)
- Being an informed and active citizen \(^{b} \) (82%)
- Acquiring job- or work-related knowledge and skills \(^{b} \) (79%)

#### Lowest Performing Relative to NSSE 2016 and 2017 cohorts
- Time spent preparing for class by reading \(^{d} \) (19%)
- Combined ideas from different courses when completing assignments \(^{a} \) (44%)
- Participated in a learning community (6%)
- Spent more than 15 hours per week working for pay off campus (0%)
- Spent more than 15 hours per week relaxing or socializing (6%)

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<table>
<thead>
<tr>
<th>Item #</th>
<th>Difference with NSSE 2016 - 2017 Cohorts</th>
</tr>
</thead>
<tbody>
<tr>
<td>17g</td>
<td>+29</td>
</tr>
<tr>
<td>1e</td>
<td>+28</td>
</tr>
<tr>
<td>15a</td>
<td>+27</td>
</tr>
<tr>
<td>17j</td>
<td>+26</td>
</tr>
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<td>17e</td>
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<tr>
<td>16</td>
<td>-8</td>
</tr>
<tr>
<td>2a</td>
<td>-8</td>
</tr>
<tr>
<td>11c</td>
<td>-8</td>
</tr>
<tr>
<td>15d</td>
<td>-18</td>
</tr>
<tr>
<td>15f</td>
<td>-22</td>
</tr>
</tbody>
</table>

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\(^{a}\) Combination of students responding "Very often" or "Often."
\(^{b}\) Combination of students responding "Very much" or "Quite a bit."
\(^{c}\) Combination of students responding "Done" or "In Progress."
\(^{d}\) Combination of students responding "Almost all" or "Most."
\(^{e}\) Rated at least 6 on a 7-point scale.
\(^{f}\) Estimate based on number of assigned writing tasks of various lengths.
Highest/Lowest Performing Items: Seniors

Senior

Highest Performing Relative to NSSE 2016 and 2017 cohorts

- Held a formal leadership role in a student organization or group (84%)
- Completed a culminating senior experience (capstone, project, or thesis) (90%)
- Worked with a faculty member on a research project (53%)
- Developing or clarifying a personal code of values and ethics (89%)
- Attending campus activities and events (78%)

Lowest Performing Relative to NSSE 2016 and 2017 cohorts

- During the current school year, extent that your courses challenged you to do your best work (42%)
- Prepared two or more drafts of a paper or assignment before turning it in (28%)
- Sent more than 15 hours per week providing care for dependents (children, parents, etc.) (1%)
- Estimated number of assigned pages of student writing (60 pages)
- Spent more than 15 hours per week working for pay off campus (2%)

Note:

a. Combination of students responding "Very often" or "Often."
b. Combination of students responding "Very much" or "Quite a bit."
c. Combination of students responding "Done" or "In Progress."
d. Combination of students responding "Almost all" or "Most."
e. Rated at least 6 on a 7-point scale.
f. Estimate based on number of assigned writing tasks of various lengths.
Challenging Students to Do Their Best Work

To what extent did students' courses challenge them to do their best work? Response options ranged from 1 = "Not at all" to 7 = "Very much."

![Bar chart showing percentages of students in different categories and years, with labels for USNA, Service Academies, and NSSE 2016 & 2017 for First-year and Senior students.](chart.png)
• Is it okay that the majority of the 1/C are being moderately challenged as compared to highly challenged?
  – Compared to plebes?
  – Compared to students at other schools—even when those students are less likely to have a capstone experience or be working with a faculty member?
Academic Emphasis

How much did students say their institution emphasizes spending significant time studying and on academic work? Response options included "Very much," "Quite a bit," "Some," and "Very little."

<table>
<thead>
<tr>
<th></th>
<th>Percentage Responding &quot;Very much&quot; or &quot;Quite a bit&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First-year</strong></td>
<td></td>
</tr>
<tr>
<td>USNA</td>
<td>94%</td>
</tr>
<tr>
<td>Service Academies</td>
<td>95%</td>
</tr>
<tr>
<td>NSSE 2016 &amp; 2017</td>
<td>81%</td>
</tr>
<tr>
<td><strong>Senior</strong></td>
<td></td>
</tr>
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<td>USNA</td>
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</table>
• Do we think that there is less emphasis on academic work for the 1/C?
  – Compared to plebes?
Time Spent Preparing for Class

This figure reports the average weekly class preparation time for your students compared to students in your comparison group.
• Is 19 hours of class prep time for 4/C appropriate given that most have about an 18 credit hour schedule?
• Is 14.4 hours of prep time for 1/C appropriate given that all have at least a 15 credit hour schedule?
Time Spent Reading and Writing

Reading and Writing
These figures summarize the number of hours your students spent reading for their courses and the average number of pages of assigned writing compared to students in your comparison group. Each is an estimate calculated from two or more separate survey questions.

First-year
- USNA: 8.3
- Service Academies: 9.6
- NSSE 2016 & 2017: 6.8

Senior
- USNA: 6.2
- Service Academies: 8.5
- NSSE 2016 & 2017: 7.4
• Is the amount of time spent preparing for class by doing the readings appropriate? Are there other ways they may be preparing for class?
  – 8.3 4/C
  – 6.2 1/C

• Is the amount of writing taking place in the 1/C year surprising? Compared to the plebes, other service academies, other schools, and what we believe we know about 1/C workload?
Perceived Gains Among Seniors

Students reported how much their experience at your institution contributed to their knowledge, skills, and personal development in ten areas.

<table>
<thead>
<tr>
<th>Perceived Gains (Sorted highest to lowest)</th>
<th>Percentage of Seniors Responding &quot;Very much&quot; or &quot;Quite a bit&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thinking critically and analytically</td>
<td>90%</td>
</tr>
<tr>
<td>Developing or clarifying a personal code of values and ethics</td>
<td>89%</td>
</tr>
<tr>
<td>Working effectively with others</td>
<td>87%</td>
</tr>
<tr>
<td>Speaking clearly and effectively</td>
<td>86%</td>
</tr>
<tr>
<td>Analyzing numerical and statistical information</td>
<td>83%</td>
</tr>
<tr>
<td>Acquiring job- or work-related knowledge and skills</td>
<td>82%</td>
</tr>
<tr>
<td>Writing clearly and effectively</td>
<td>79%</td>
</tr>
<tr>
<td>Solving complex real-world problems</td>
<td>77%</td>
</tr>
<tr>
<td>Being an informed and active citizen</td>
<td>72%</td>
</tr>
<tr>
<td>Understanding people of other backgrounds (econ., racial/ethnic, polit., relig., nation., etc.)</td>
<td>71%</td>
</tr>
</tbody>
</table>
- Any surprises in the perceived gains among seniors?
  - Areas you thought they would rate higher or lower?
  - Areas where perceived gains suggest there is work to be done?
Satisfaction with Institution

Satisfaction with USNA
Students rated their overall experience at the institution, and whether or not they would choose

Percentage Rating Their Overall Experience as "Excellent" or "Good"

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<td>91%</td>
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<tr>
<td>NSSE 2016 &amp; 2017</td>
<td>85%</td>
<td>86%</td>
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Percentage Who Would "Definitely" or "Probably" Attend This Institution Again

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</tbody>
</table>
Aggregate of:

- United States Air Force Academy
  - (Colorado Springs, CO)
- United States Coast Guard Academy
  - (New London, CT)
- United States Merchant Marine Academy
  - (Kings Point, NY)
- United States Military Academy
  - (West Point, NY)

Caveat: Aggregate figures represent combined weighted scores for USAFA, UCGA, USMA, and USMMA. Considerable variation may exist between or within individual academies.
### How Time is Spent at the Service Academies

About how many **hours** do you spend in a typical 7-day week doing the following?

<table>
<thead>
<tr>
<th></th>
<th>USNA</th>
<th>Service Academies</th>
<th>USNA</th>
<th>Service Academies</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/C</td>
<td>10</td>
<td>14</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>1/C</td>
<td>11</td>
<td>12</td>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>

- **a. Military duties** (including uniform preparation, mentoring subordinates in my unit, preparing for and completing inspections, completing required training, etc.)
- **b. Athletics /Physical Fitness** (including practicing with my club or IC team, intramurals, working out on my own time, travel time with the team or club, etc.)
- **c. Academics** (including attending class, preparing for class, studying, working on assignments, etc.)
• Is this an appropriate amount of time for 1/C or 4/C to be spending on their USNA duties?
Military Academies must balance the emphasis on different experiences of cadet/midshipman life. Indicate how you perceive the ACADEMIC balance at your institution.
Military Academies must balance the emphasis on different experiences of cadet/midshipman life. Indicate how you perceive the MILITARY balance at your institution.
Emphasis: Athletics/Physical Training

Military Academies must balance the emphasis on different experiences of cadet/midshipman life. Indicate how you perceive the ATHLETICS/PHYSICAL balance at your institution.
Military Academies must balance the emphasis on different experiences of cadet/midshipman life. Indicate how you perceive the MORAL/ETHICAL/CHARACTER DEVELOPMENT balance at your institution.
1/C: To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas? (Percent Quite a Bit or Very Much)

- Learning effectively on your own: USNA 89, Service Academies 90
- Cultivating a sense of honor and personal integrity: USNA 93, Service Academies 81
- Inspiring you for a career in service to the nation: USNA 89, Service Academies 80
Describe your most significant learning experience:

• Seeing my superiors make mistakes and failures, and then consequently observing how they go about correcting them.

• ...Plebe Summer where I learned a little more about myself, my limits, military life and what kind of leader I would like to be.

• I learn every day by watching and examining my peers, teammates, classmates, teachers, and people I look up to. I look at how they handle challenging situations.... I look at the amount of effort they put into everything and how much they care.... This institute is extremely hard on Plebes and the most significant thing I have learned so far is time management, how to deal with failure, how to face adversity, and much more.
Describe your most significant learning experience:

- ...learning to work with people of different races, religious backgrounds and political views in an professional environment. It was different being the minority by a great amount versus by approximately 10%.

- Opportunities to go interact with the fleet or people working in the real world in fleet cruise and internships. The academy is its own bubble and it is informative to see how other people in other bubbles (a ship or workplace) function and what is important to them.

- ...forming relationships with my professors in my major. Through interactions in class and EI over the years, I feel a deep respect and indebtedness.... I have had professors who not only believed in me but pushed me to achieve more.
National Surveys

National Survey of Student Engagement (NSSE)
The NSSE is administered by the Center for Postsecondary Research, Indiana University School of Education. Student Engagement is measured by two crucial features of collegiate quality. The first is how time and effort students put into their studies and other educationally purposeful activities. The second is how institutional resources, courses, and learning opportunities facilitate participation in activities relevant to student learning. Colleges and universities use the data to identify aspects of the undergraduate experience, inside and outside the classroom, which can be improved through changes in policies and practices.

- NSSE Snapshot USNA 2017
- NSSE Snapshot USNA 2014
- NSSE Presentation 2014
- NSSE Snapshot USNA 2011
- NSSE Snapshot USNA 2008

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Thank You

Questions about

NSSE 2017 Administration and Items
Service Academy Consortium

Other areas that we should explore