

# **Synopsis of 2010 NSSE Seniors Data**

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## NSSE 2010 Seniors Synopsis

Ferris first administered the National Survey of Student Engagement (NSSE) in the Winter of 2005. A summary of the findings of that year’s results is provided on the site where all Ferris NSSE data can be found: <http://www.ferris.edu/htmls/administration/academicaffairs/assessment/NSSE/>. The results from 2005 (a pilot year); 2006, 2008, and 2010 are all available.

Initially, the NSSE was envisioned as an instrument that could provide insights to the success of the Ferris general education program. Thus, reviewers will observe that the reports produced by the general education coordinator in the early years focus on the questions that most inform areas such as communications, reading, speaking, and cultural enrichment.

The spring 2010 results are the most comprehensive to date, and the results of this large sample are highly consistent with prior years (reference Multi-Year Benchmark Report on the website. There should be value to the University in comparing its results over time. The key indicators reflected below are designed to encourage continued conversation and action to improve results in critical areas for the 2012 and subsequent administrations.

A total of 583 freshmen and 845 seniors completed the 2010 assessment. Just the senior information is reported below, as these are the students most likely to become Ferris alumni and will reflect these perspectives in their personal and professional lives.

When compared to its selected peers (one of three possible comparison groups which also include other institutions in our Carnegie class and the total national population), Ferris seniors report better results in the following areas: *(results with \* are statistically significant differences)*

### 2010 NSSE Senior Results – Areas of Strength

Question	Ferris Seniors <i>Combined Often or Very Often</i>	Selected Peers <i>Combined Often or Very Often</i>
1a. Asked questions in class or contributed to class discussions	78%	75%
1b. Made a class presentation	67%*	59%
1c. Prepared two or more drafts of a paper or assignment before turning it in	52%	49%
1g. Worked with other students on projects <b>during class</b>	64%*	50%
1h. Worked with classmates <b>outside of class</b> to prepare class assignments	68%*	53%
1i. Put together idea or concepts from different courses when completing assignments or during class discussions	75%*	68%
1k. Participated in a community-based project (e.g. service learning) as part of a regular course	19%*	16%
1l. Used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment	67%*	62%
1o. Talked about career plans with a faculty member or advisor	48%*	39%
1p. Discussed ideas from your readings or classes with faculty members outside of class	28%*	25%
1s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.	22%*	20%

2e. Coursework emphasizes: <b>Applying</b> theories or concepts to practical problems or in new situations	82%	81%
4a. Number of problem sets that take you <b>more</b> than an hour to complete	24%*	20%
6a. Attended an art exhibit, play, dance, music, theater, or other performance	21%*	19%
6b. Exercised or participated in physical fitness activities	56%*	53%
7a. Plan to do or Completed: Practicum, internship, field experience, co-op experience, or clinical assignment	87%*	73%
7b. Plan to do or done: Community service or volunteer work	74%	73%
7c. Plan to do or done: Participate in a learning community or some other formal program where groups of students take two or more courses together	39%*	34%
7h. Plan to do or done: Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)	72%*	62%
8a. Quality of relationships with other students	64%*	60%
10g. Using computers in academic work	91%	89%
11b. Acquiring job or work-related knowledge and skills	79%*	75%
11g. Using computing and information technology	82%	81%
11h. Working effectively with others	81%	77%
11m. Solving complex real-world problems	63%	60%

When asked to evaluate their entire educational experience at Ferris, 80% of the seniors rated it good or excellent, in comparison to 86% in peer institutions. The difference on this question is “extremely overwhelming evidence” of significance. This gap in the overall rating suggests areas for Ferris to attend to less-than-optimal experiences for students. In an effort to identify the areas most in need of attention, the following data are informative. While all areas of strength are listed above, just those areas where the gap is 3 or more percentage points are listed below, as these may serve as initial areas for attention. Statistical significance is also indicated with an asterisk (\*).

### 2010 NSSE Senior Results – Areas of Opportunity

Question	Ferris Seniors <i>Combined Often or Very Often</i>	Selected Peers <i>Combined Often or Very Often</i>
1e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments.	55%*	64%
1m. Used e-mail to communicate with an instructor	85%*	89%
1t. Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)	60%*	63%
1u. Had serious conversations with students of a different race or ethnicity than your own	39%*	49%
1v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	48%*	52%
2b. Coursework emphasizes: <b>Analyzing</b> the basic elements of an	80%*	84%

idea, experience or theory		
2c. Coursework emphasizes: <b>Synthesizing</b> and organizing ideas, information, or experiences	70%*	73%
2d. Coursework emphasizes: <b>Making judgments</b> about the value of information, arguments, or methods	63%	72%
5. Extent to which your examinations during the current school year have challenged you to do your best work	46%*	50%
6c. Participated in activities to enhance your spirituality (worship, meditation, prayer, etc.)	26%*	32%
6d. Examined the strengths and weaknesses of your own views on a topic or issue	50%*	57%
6e. Tried to better understand someone else's views by imagining how an issue looks from his or her perspective	60%*	66%
6f. Learned something that changed the way you understand an issue or concept	62%*	65%
7d. Work on a research project with a faculty member outside of course or program requirements	23%*	28%
7e. Foreign language coursework	32%*	39%
7f. Study abroad	12%*	16%
8b. Quality of relationships with <b>faculty members</b>	54%	57%
10b. Providing the support you need to help you succeed academically	69%*	72%
10c. Encouraging contact among students from different economic, social, and racial or ethnic backgrounds	46%*	50%
10e. Providing the support you need to thrive socially	30%*	35%
10f. Attending campus events and activities (special speakers, cultural performances, athletic events, etc.)	48%*	51%
11a. Acquiring a broad general education	76%*	82%
11c. Writing clearly and effectively	70%*	76%
11d. Speaking clearly and effectively	68%*	72%
11e. Thinking critically and analytically	82%*	86%
11f. Analyzing quantitative problems	72%	75%
11i. Voting in local, state, or national elections	24%*	31%
11j. Learning effectively on your own	71%*	74%
11k. Understanding yourself	53%*	60%
11l. Understanding people of other racial and ethnic backgrounds	45%*	53%
11n. Developing a personal code of values and ethics	52%*	56%
11o. Contributing to the welfare of your community	39%*	44%
11p. Developing a deepened sense of spirituality	18%*	22%

Many of these results are similar to prior administrations of the NSSE instrument. Several are areas where heightened attention has been placed – such as diversity and political engagement – yet the results of these initiatives have not yet been positively reflected in our seniors' assessments. These findings corroborate recent ETS Proficiency Profile (then called MAPP) in some key areas, especially critical thinking. A review of the improvement opportunities would suggest that the University could benefit from examining its curriculum and co-curriculum regarding higher-level thinking skills (analysis,

synthesis, and making judgments); in incorporating more about understanding self and others; and in contributing to communities.

It is interesting to note that we are above our peers (not always statistically significantly in 25 areas, but we have 33 areas where we are statistically below our peers. . . some exceptionally so.

An anomaly in the 2010 data, when compared with prior administrations, is the profile of the students, that included more transfer students than in prior years. . Fifty-three ( 53%) of the respondents started their college elsewhere, and 51% indicated they had attended a community or junior college. Seventy-two percent (72% ) of the students were between 20 and 29 years old, and 28% were 30 or older, with 1% over 55 years old. Fifty-two percent (52%) of the respondents were male, while 48% were female. Just 2% were international or foreign nationals. Eighty-four percent (84%) were white, while 6% indicated they preferred not to respond. Seventy-seven (77) percent characterized themselves as full-time. Only 15% reported that they were taking all courses entirely online. Eighty-nine percent(89%) report that most of their grades are B or above, with 52% reporting A or A-, in contrast to 48% of peers reporting A or A-. Fifty percent (50%) report that they live within driving distance, while 10% are in residence halls. The education levels of parents is just slightly below those of peer institutions, with 31% of Ferris seniors’ parents having completed a baccalaureate or higher, when peers are at 32%, and 26 percent of mothers had completed a baccalaureate or higher, while mothers of peer seniors reported 30% of mothers having completed a baccalaureate or higher degree.

There was a strong distribution among the students’ majors, with 24% reporting other; 26% reporting professional (likely optometry and pharmacy); 13% in business; 12% in engineering, and 7% in arts/humanities. Ferris has many more senior professional and engineering students than its selected peers.

The following two charts are most relevant for the Higher Learning Commission’s Criterion 3 on Student Learning and Effective Teaching and highlight the University’s category ratings over time.

Insert: (from Multi-Year Benchmark Report) – see website

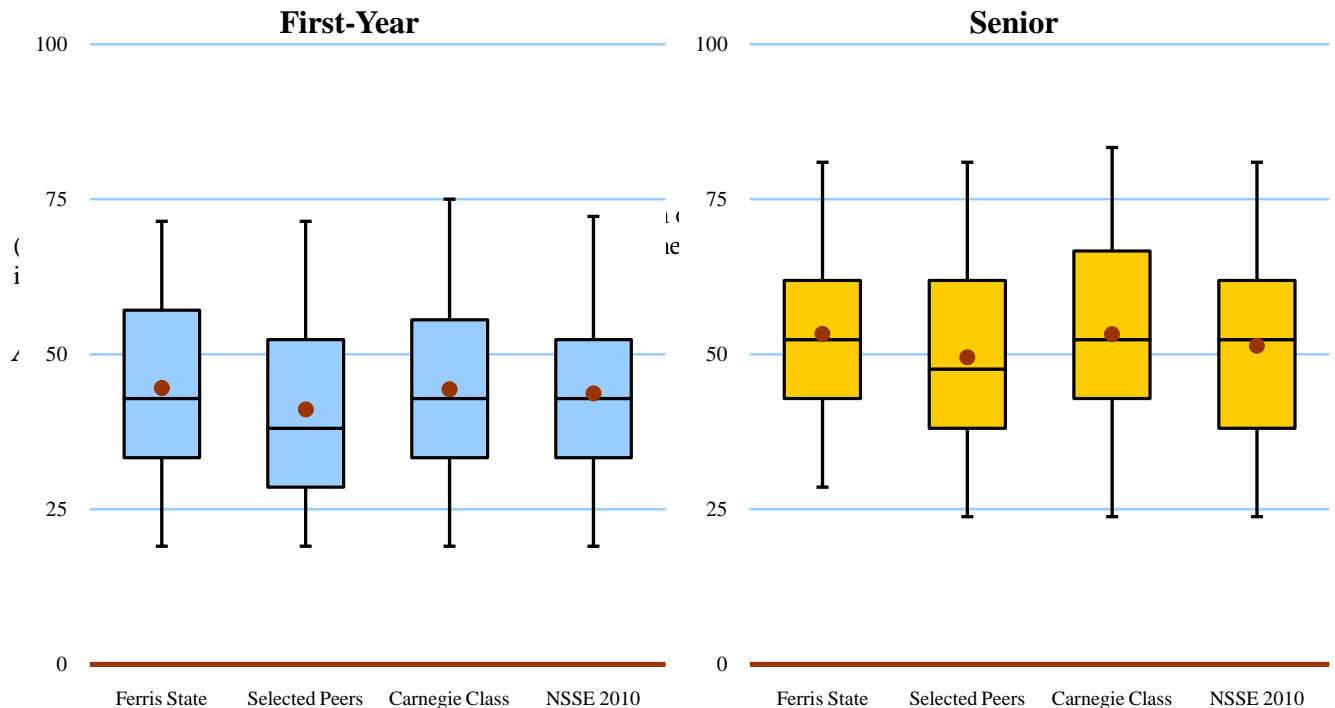
1. Chart A: Active and Collaborative Learning - *Continues on Next Page*

## Active and Collaborative Learning (ACL)

### Mean Comparisons

Class	Ferris State University compared with:									
	Ferris State	Selected Peers			Carnegie Class		NSSE 2010			
	Mean <sup>a</sup>	Mean <sup>a</sup>	Sig <sup>b</sup>	Effect Size <sup>c</sup>	Mean <sup>a</sup>	Sig <sup>b</sup>	Effect Size <sup>c</sup>	Mean <sup>a</sup>	Sig <sup>b</sup>	Effect Size <sup>c</sup>
First-Year	44.6	41.1	***	.21	44.4		.01	43.7		.05
Senior	53.3	49.5	***	.21	53.2		.00	51.4	***	.11

## Distributions of Student Benchmark Scores



Students learn more when they are intensely involved in their education and asked to think about what they are learning in different settings. Collaborating with others in solving problems or mastering difficult material prepares students for the messy, unscripted problems they will encounter daily during and after college.

### 2. Chart B– Level of Academic Challenge

## Level of Academic Challenge (LAC)

### Mean Comparisons

Ferris State University compared with:

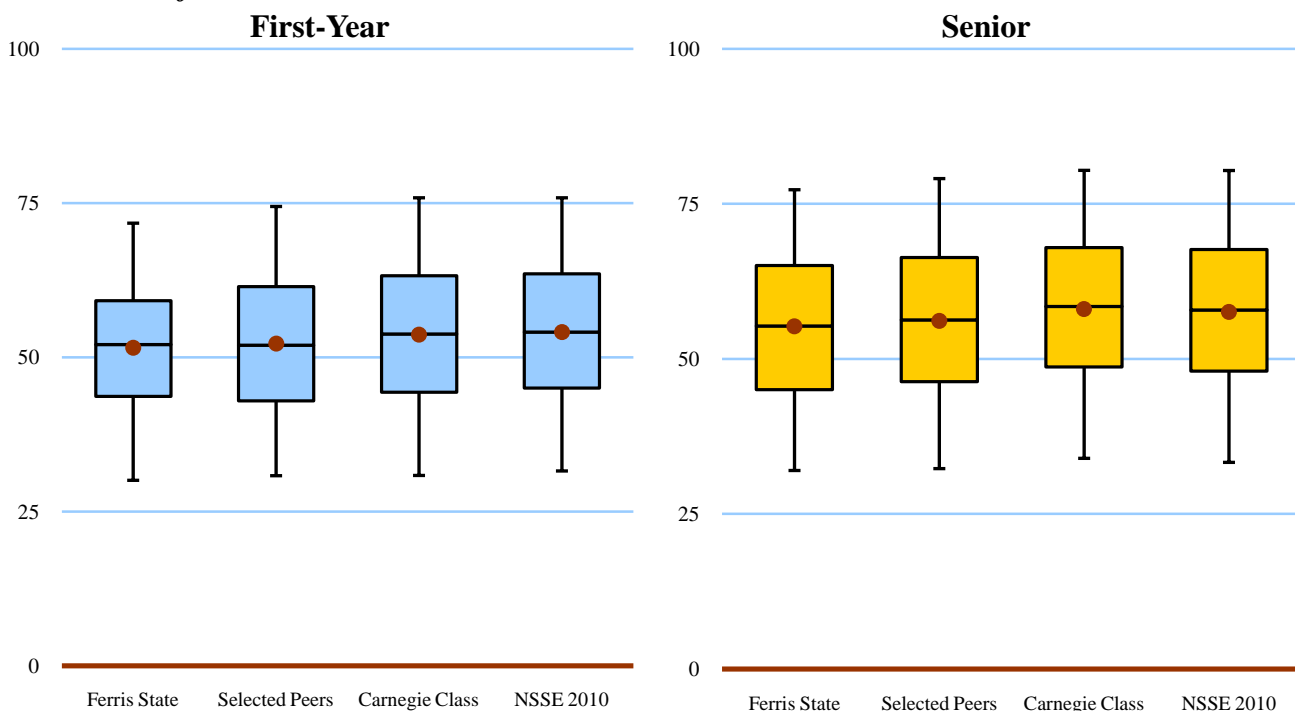
Class	Ferris State		Selected Peers		Carnegie Class			NSSE 2010		Effect Size <sup>c</sup>
	Mean <sup>a</sup>	Mean <sup>a</sup>	Sig <sup>b</sup>	Effect Size <sup>c</sup>	Mean <sup>a</sup>	Sig <sup>b</sup>	Effect Size <sup>c</sup>	Mean <sup>a</sup>	Sig <sup>b</sup>	
First-Year	51.6	52.2		-.05	53.7	***	-.16	54.1	***	.19
Senior	55.2	56.1		-.06	58.0	***	-.20	57.6	***	.16

<sup>a</sup> Weighted by gender and enrollment status (and by institution size for comparison groups).

<sup>b</sup> \* p<.05 \*\* p<.01 \*\*\*p<.001 (2-tailed).

<sup>c</sup> Mean difference divided by the pooled standard deviation.

## Distributions of Student Benchmark Scores



Note: Each box and whiskers chart plots the 5th (bottom of lower bar), 25th (bottom of box), 50th (middle line), 75th (top of box), and 95th (top of upper bar) percentile scores. The dot shows the benchmark mean. See page 2 for an illustration. See pages 10 and 11 for percentile values.

### Level of Academic Challenge (LAC) Items

Challenging intellectual and creative work is central to student learning and collegiate quality. Colleges and universities promote high levels of student achievement by emphasizing the importance of academic effort and setting high expectations for student performance.

- Hours spent preparing for class (studying, reading, writing, doing homework or lab work, etc. related to academic program)
- Number of assigned textbooks, books, or book-length packs of course readings
- Number of written papers or reports of 20 pages or more, between 5 and 19 pages, and fewer than 5 pages
- Coursework emphasizes: **Analysis** of the basic elements of an idea, experience or theory
- Coursework emphasizes: **Synthesis** and organizing of ideas, information, or experiences into new, more complex interpretations and relationships
- Coursework emphasizes: **Making of judgments** about the value of information, arguments, or methods
- Coursework emphasizes: **Applying** theories or concepts to practical problems or in new situations
- Working harder than you thought you could to meet an instructor's standards or expectations
- Campus environment emphasizes: Spending significant amount of time studying and on academic work

### **Comparative Discipline Results**

New in 2010 was the ability to distinguish results for students enrolled in different majors. This information is also presented on the Ferris website. Separate ratings are available for each of the disciplines listed after this chart. These categorizations may not completely align with our colleges' majors, but we are quite confident that the categories are reflective of students' perceptions of the programs in which they were enrolled. In addition to our ratings, the reports available on the Academic Affairs website also provides comparative information with other similar discipline groups at peer institutions, within the Carnegie class, and all institutions. How disciplines compare across institutions should become a subject of consideration by each area so that variations are understood. Here are some highlights:

#### **Highest Ferris Senior Ratings on Selected NSSE Questions**

<b>Question</b>	<b>Overall %</b>	<b>Highest % with Very Often</b>	<b>Discipline Category</b>
1a. Asked questions in class or contributed to class discussions	23%	44%	Arts and Humanities
1b. Made a class presentation	10%	24%	Arts and Humanities
1c. Prepared two or more drafts of a paper or project or assignment before turning it	29%	39%	Engineering
1d. Worked on a paper or project that required integrating ideas or information from various sources	31%	44%	Education
1e. Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments	17%	43%	Biological Sciences
1i. Put together ideas or concepts from different courses when completing assignments or during class discussions	14%	34%	Arts and Humanities
1k. Participated in a community-based project (e.g. service learning) as part of a regular course	4%	6%	Engineering
1o. Talked about career plans with a faculty member or advisor	13%	24%	Biological Sciences
1p. Discussed ideas from your readings or classes with faculty members outside of class	7%	14%	Biological Sciences, Engineering, and Physical Sciences
1q. Received prompt written or oral feedback from faculty on your academic performance	16%	24%	Arts and Humanities
1s. Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)	4%	8%	Business and Engineering
1v. Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values	24%	30%	Arts and Humanities



2b. Coursework emphasizes: <b>Analyzing</b> the basic elements of an idea, experience, or theory	32%	38%	Arts and Humanities
2c. Coursework emphasizes: <b>Making judgments</b> about the value of information, arguments, or methods	23%	33%	Arts and Humanities
3b. Number of books read on your own (not assigned) for personal enjoyment or academic enrichment (11 or more)	6%	13%	Social Sciences
3c. Number of written papers or reports between 5 and 19 pages (11 or more)	5%	11%	Engineering
4a. Number of problem sets that take you more than an hour to complete (5 or more)	20%	28%	Physical Sciences
5. Extent to which your examinations during the current school year challenged you to do your best work (very much)	14%	29%	Physical Sciences
6a. Attended an art exhibit, play, dance, music, theater, or other performance	14%	29%	Physical Sciences
6d. Examined the strengths and weaknesses of your own views on a topic or issue	16%	43%	Physical Sciences
6f. Learned something that changed the way you understand an issue or concept	25%	43%	Social Sciences
7b. Done community service or volunteer work	41%	65%	Social Sciences
7d. Work on a research project with a faculty member outside or course or program requirements	5%	14%	Engineering
7e. Foreign language coursework	11%	22%	Business
8b. Quality of relationships with faculty members (6-7, friendly and supportive)	59%	74%	Social Sciences
11a. Acquiring a broad general education	27%	33%	Biological Sciences and Engineering
11b. Acquiring job or work-related knowledge and skills	34%	50%	Engineering
11c. Writing clearly and effectively	23%	33%	Biological Sciences
11e. Thinking critically and analytically	38%	59%	Arts and Humanities
11h. Working effectively with others	36%	50%	Engineering
11i. Voting in local, state, or national elections	6%	9%	Business and Social Sciences
11j. Learning effectively on your own	23%	40%	Engineering
11l. Understanding people of other racial and ethnic backgrounds	17%	30%	Social Sciences
11m. Solving complex real-world problems	21%	50%	Engineering
11n. Developing a personal code of values and ethics	18%	35%	Social Sciences
12. Overall, how would you evaluate the quality of academic advising you have received at your institution? (excellent)	31%	35%	Business
13. How would you evaluate your entire educational experience at this institution? (excellent)	32%	42%	Engineering
14. If you could start over again, would you go to the same institution you are now attending? (definitely)	46%	53%	Engineering

yes)			
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Total Number of “top” ratings:

Engineering	13
Arts and Humanities	8
Social Sciences	7
Biological Sciences	5
Physical Sciences	5
Business	4
Education	1

An institution’s reputation is significantly based upon the perceptions of its students. Thus the final three questions above (questions 12, 13, and 14) are important for the University to further consider to better understand how students in those disciplines that fell below the average responses could report a more favorable experience in the future. Combined good and excellent ratings on question 13, the overall Ferris experience, was 86% (which means that 14% do not rate us either good or excellent). These areas fell below that rating: Arts and Humanities; Biological Sciences; Business; and Education. Highest combined ratings for good and excellent were Engineering (92); Professional (89); and Physical Sciences (86).

As noted above, Ferris exceeds the achievement of its peer institutions in some important areas, yet it falls short in others. Overall, Ferris rates at about the 50<sup>th</sup> percentile. It falls well below the top 10% of institutions, which should become an improvement target. . . to aspire to reach the top 10 percent in some key performance metrics. Those key areas are yet to be determined and should emerge from the current general-education review and forthcoming recommendations .

Explaining Our Differences

This data set is rich and can inform reflective dialogue about the Ferris experience. Do these results represent what we espouse? What we believe? Which areas could benefit from some focused attention? In what ways do students’ enrollments in online instruction affect their perceptions and/or their experiences – especially among the seniors? How do students’ reported experiences with what might be classified as some critical thinking exercises (such as making judgments or solving problems) affect their abilities to compete in a more demanding economic and career environment? With more than half reporting that they have transfer credits, how does this impact what they think about their Ferris experience?

Analyzing the Data and Taking Action

All academic leaders (deans, associate deans, assistant deans, directors, department heads, and department chairs) plus the assessment groups (the assessment committee, mentors, and the HLC academy team) were invited to participate in a debrief on the NSSE data at the institutional level. Colleges were each provided with all of the data, in addition to its availability on the website, and they are encouraged to analyze the data for their respective areas to determine what improvements can be made. A report of the “findings” from the discussion group will be forthcoming, but this data is most actionable at the program level, where interventions can be planned.