NSSE 2008: How UVa Fared

Introduction

The University of Virginia, participating in the National Survey of Student Engagement (NSSE) for the fourth time, continued to excel in most areas, but several indicate room for improvement. The important, positive findings about UVa from NSSE 2008 are:

- UVa faculty members continue to maintain a learning environment in which students are academically challenged and engaged.
- The co-curricular environment at UVa remains strong.
- UVa continues to excel at providing students the support they need academically and socially, and this support has been improving.
- UVa students are highly satisfied overall with their experience at UVa, more so than many peer institutions.
- Students who have benefitted from four years of the AccessUVa no loan program are as engaged as their peers, and there is evidence that the program is working to increase their co-curricular opportunities.
- African-American and other minority students are doing well compared to white students in terms of engagement, involvement with important activities and satisfaction.
- The University performs well compared to its peers on key questions related to diversity issues, such as the extent to which our students have conversations with students from underrepresented groups.
- Student satisfaction with academic advising, which has been a weakness for the College, particularly among first-years, improved again in 2008.
- Student ratings within each of the University's undergraduate schools revealed significant differences, with different schools excelling in different areas.

NSSE 2008 results indicate, as have years past, two particular broad areas that need improvement: (1) Student-Faculty Interaction and (2) Active and Collaborative Learning. UVa did least well on Student-Faculty Interaction.

For detailed information about NSSE 2008 see the methodology, data and questionnaire pages. The remainder of this report is divided into the following sections:

Analysis Plan

UVa's Performance on the Five NSSE Benchmarks

Highlights from Benchmark Questions

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Minority Students
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Summary and Conclusion: What Can We Learn from NSSE 2008?

Analysis Plan

The first part of the report examines the 2008 NSSE benchmark results, both by academic level (first- and fourth-year) and over time. The benchmarks are: Level of Academic Challenge, Active and Collaborative Learning, Student Interactions with Faculty Members, Enriching Educational Experiences, and Supportive Campus Environment. These benchmarks, all standardized to a 100 point scale, are derived from survey questions that are correlated with desired educational outcomes, e.g. critical thinking, problem solving, effective communication, and responsible citizenship. These benchmarks allow participating institutions to compare their results with peer institutions, see how the institution performs over time, and examine within-institution subgroup performances. UVa's benchmark results are compared to various groups, including the Association of American Universities Data Exchange (AAUDE) institutions and Carnegie Basic Classification (Research University-Very High or VH), and the top 50% and 10% of all institutions participating in NSSE 2008.

We also look at individual questions of particular interest to the University, such as overall satisfaction with the University, involvement in research, service learning, and study abroad, and satisfaction with academic advising. We examine the responses of various racial and ethnic groups and compare them to the rest of the University, as well as "high-need" financial aid recipients (200% or below of the federal poverty level).

For the first time since the University began participating in NSSE, oversampling was conducted to allow for analysis of the data by school. This analysis will focus primarily on fourth-year student responses, since much of the first-year experience is common for several of the smaller undergraduate schools. We will report benchmark figures and key individual questions by the schools of Architecture, Commerce, Engineering, Nursing and the College of Arts and Sciences. Unfortunately, small numbers of cases for the Bachelor of Interdisciplinary Studies Program and School of Education undergraduate programs (Communication Disorders and Kinesiology) prevented separate analysis for those groups. While the number of responses for Nursing and Architecture were barely sufficient for analysis, the sampling errors are high (14% and 12%, respectively) and thus the figures must be interpreted with caution.

Where there are statistically significant differences they are noted. Statistical significance, however, is not the same as substantive significance. Because there were so many institutions that participated in NSSE 2008, resulting in a large number of cases, many differences in the comparisons between UVa and AAUDE and Research Universities (VH) were statistically significant.

Statistical significance indicates that observed differences were unlikely to have occurred by chance. Whether these differences are substantively meaningful requires other calculations and a
judgement on the part of the reader. To help the reader understand the substantive magnitude of
the observed differences, effect sizes were calculated where possible. Based on these effect size
calculations, differences are described as: small/slight, moderate/somewhat and large/much.2

Through this analysis, we hope to shed light on the following questions about the University:

- What are the University’s strengths and weaknesses?
- How does the University compare to other institutions that participate?
- How does the University’s 2008 performance compare to previous years?
- How are our students performing in important areas of interest, such as study abroad,
  research, and service learning (academic public service)?
- Are minority and low income students doing as well as other students?
- How well are students from each of the University's undergraduate schools performing
  and are there meaningful differences between schools?

UVa's Performance on the Five NSSE Benchmarks

On three of the indices (Enriching Educational Experiences, Academic Challenge and Supportive
Campus Environment), UVa ranked higher than other AAUDE and Research Universities (VH). UVa's
best comparative performance was for the Enriching Education Experiences benchmark.

- **Enriching Educational Experiences**: UVa students' average scores of 32 and 50 (first-
  and fourth-year, respectively) were slightly higher for first-years and moderately higher
  for fourth-years, compared to AAUDE (30 and 43) and other Research Universities (VH)
  (29 and 43). In percentile terms, UVa's scores were above the 50th percentile and slightly
  below the 90th percentile of all the institutions that participated in NSSE in 2008. The
  mean scores for first- and fourth-years from schools in the 90th percentile were 33 and
  54.

- **Academic Challenge**: Scores for first- and fourth-year students were 55 and 58,
  respectively, slightly higher than AAUDE institutions (53 and 55) and other Research
  Universities (VH) (53 and 55). UVa's scores were slightly below the 50th percentile of all
  the institutions that participated in NSSE in 2008 and moderately below the 90th
  percentile. The mean scores for first- and fourth-years from schools in the 90th percentile
  were 61 and 63.
• **Supportive Campus Environment**: Scores for first- and fourth-years were 62 and 59, slightly higher than AAUDE (60 and 56) and other Research Universities (VH) (60 and 55). UVa's scores were slightly below the 50th percentile and moderately below the 90th percentile. The mean scores for first- and fourth-years from schools in the 90th percentile were 69 and 67.

On the whole, these three benchmarks are a relative strength for the University, which outperformed other AAUDE and Research Universities (VH). These differences were fairly small, however, and in percentile terms UVa is at or below the 50th percentile for two of the three benchmarks. Thus there remains room for improvement.

On the other two benchmarks, **Student-Faculty Interaction** and **Active and Collaborative Learning**, UVa was slightly below, or tied with AAUDE and other Research Universities (VH). On the whole the University's weakest performance was in the area of **Student-Faculty Interaction**.

• **Student-Faculty Interaction**: UVa's first- and fourth-year student mean scores were 29 and 39, respectively. AAUDE and other Research Universities (VH) scores were slightly higher for first-years (32 for both) and very similar for fourth-years (39, 40, respectively). In percentile terms, UVa was moderately below the 50th percentile of all 2008 NSSE institutions and largely below the 90th percentile. The institution mean scores for first- and fourth-years in the 90th percentile were 44 and 55.

• **Active and Collaborative Learning**: UVa's first- and fourth-year student mean scores were 39 and 46, very similar to both AAUDE and research institutions (VH) which had the same scores for both first- and fourth-years (40 and 47). UVa's scores were moderately below the 50th percentile and largely below the 90th percentile. The mean scores for first- and fourth-years from schools in the 90th percentile were 69 and 67.
On the whole, UVa's scores have shown remarkable stability over time. This is both good and not-so-good news. On the positive side, the overall level of engagement of students at the University is not declining. For those indices where UVa has scored relatively well--Enriching Educational Experiences, Academic Challenge and Supportive Campus Environment--the University has remained strong. However, for those areas where the University is not as strong--Student-Faculty Interaction and Active and Collaborative Learning--the University has not improved. The only discernible trend over time, slight but positive, is on the Supportive Campus Environment benchmark, which for fourth-year students has steadily increased between 2000 (54) and 2008 (59).

**Benchmark Performance by School**

While the University's benchmark scores differed only slightly from its peers, when disaggregating the results by school within the University, statistically and substantively moderate to large differences were uncovered.

Differences were observed for 4 of the 5 benchmarks. Only for Academic Challenge were scores similar across schools. Some of the differences are statistically and substantively significant. The two benchmarks that present the largest differences among the school results are Active and Collaborative Learning and Supportive Campus Environment. For Active and Collaborative Learning, the School of Commerce outperformed all other UVa schools, as well as Research
Universities (VH). In addition, the Schools of Architecture and Nursing outperformed the College. (See Fig. 2). The statistical significance levels and the effect sizes for the differences between UVa schools are as follows: compared to both the College and Engineering, Commerce had a higher benchmark score (sig. p<.0001) and the substantive difference can be characterized as large. Architecture's score also was higher than the College (sig. p<.0001) and the effect size was large. Nursing's score was higher than the College (sig. p<.001) with a moderate effect size.

For Supportive Campus Environment Commerce outperformed all schools: compared to Architecture (sig. p<.001) with a moderate effect size; compared to Engineering (sig. p<.0001) with a moderate effect size; compared to Nursing (sig. p<.001) with a moderate effect size; compared to the College (sig. p<.0001) with a large effect size. In addition, Engineering and Nursing had higher levels than the College; for Nursing (sig. p<.0001) the effect size was moderate; for Engineering (sig. p<.001) the effect size was also moderate. See Fig. 3 below.
For **Student-Faculty Interaction** the Commerce School had higher scores than both the College and Engineering. Compared to the College (sig. p<.0001) Commerce's score on this index was much higher (large effect size); compared to Engineering (sig. p<.05), the effect size of the difference was small. Nursing's score was higher than the College (sig. p<.01) and the effect size was moderate. See Fig. 4 below.
For **Enriching Educational Experiences** the Commerce school outpaced all the other schools at the University, with the substantive differences all moderate: the College (sig. p.<.0001); Nursing (sig. p.<.001); Architecture (sig. p.<.05); Engineering (sig. p.<.0001). See Fig. 5 below.
Highlights from Benchmark Questions

Several questions that comprise each of the five benchmark indices provided interesting insights into students’ experiences at UVa as compared to students’ experiences at peer institutions.

Academic Challenge

- Only 38% of fourth-year students did not write a paper of 20 or more pages, compared to 54% for AAUDE institutions and 52% for other Research Universities (VH) (sig. p<.001).

- 24% of first-years and 37% of fourth-years reported spending just 10 hours or less a week studying, compared to 32% and 40% for AAUDE first- and fourth-years and 35% and 39% for Research Universities (VH) (sig. p<.001).

Enriching Educational Experiences
• 43% of first-years and 70% of fourth-years reported studying a foreign language at UVa, compared to 33% and 55% of AAUDE institutions and 30% and 54% of Research Universities (VH) (sig. p<.001).

• Nearly all UVa students (89% of first-years and 84% of fourth-years) were involved in co-curricular activities (organizations, publications, student government, sports, etc.), compared to 73% and 68% at AAUDE institutions and 72% and 66% for other Research Universities (VH) (sig. p<.001).

• Half of first-years and 81% of fourth-years did community service or volunteer work, compared to 38% and 65% of AAUDE institutions and Research Universities (VH) (sig. p<.001).

• 34% of fourth-year students reported studying abroad during their time at UVa, compared to 21% for AAUDE institutions and 22% for Research Universities (VH) (sig. p<.001).

Supportive Campus Environment

• When asked “whether the campus environment emphasized providing the support students needed to thrive academically,” 79% of UVa first-years and 73% of fourth-years answered “quite a bit” or “very much,” compared to 77% of first- and 72% of fourth-year AAUDE students and 76% of first- and 66% of fourth-year students from Research Universities (VH) (sig. p<.001).

• When asked “whether the campus environment emphasized providing the support students needed to thrive socially,” 57% of UVa first-years and 47% of fourth-years answered “quite a bit” or “very much” to the question, compared to 51% of first- and 39% of fourth-year AAUDE students and 50% of first- and 37% of fourth-year students from Research Universities (VH) (sig. p<.001).

Student-Faculty Interaction

• Only 51% of first-years and 59% of fourth-years said they "often" or "very often" received prompt written or oral feedback from faculty on their academic performance, very similar to AAUDE institutions and Research Universities (VH).

• 3% of first-years and 30% of fourth-years reported working on a research project with a faculty member outside of course or program requirements, similar for first-years but slightly higher for fourth-years, when compared to AAUDE institutions and Research Universities (VH) (sig. p<.01 for fourth-years).

• 30% of first-years reported that they "never" “talked about career plans with a faculty member or advisor,” compared to 23% for AAUDE institutions and 23% for Research Universities (VH) (sig. p<.001). The percentage of UVa fourth-year students who reported "never" (15%) compares to 19% for AAUDE institutions and 18% for Research Universities (VH) (sig. p<.05).
The graph below shows first- and fourth-year frequencies for all items comprising the Student-Faculty Interaction benchmark.

**Fig. 6**

The graph below shows first- and fourth-year frequencies for all items comprising the Student-Faculty Interaction benchmark.

**Active and Collaborative Learning**

- 27% of first-years and 28% of fourth-years reported that they worked with other students on projects during class “often” or “very often” compared to 38% of both first- and fourth-year students at AAUDE institutions and 38% of first-years and 39% of fourth-years at Research Universities (VH) (sig. p<.001).

- When asked how often they had made a class presentation in the past year, just 15% of first-years and 38% of fourth-years said “often” or “very often,” compared to 22% of
first- and 45% of fourth-years at AAUDE institutions and 22% of first-years and 48% of fourth-years at Research Universities (VH) (sig. p<.001).

Individual Questions of Interest

In addition to the benchmark comparisons, we examine some key individual questions, including: overall satisfaction with the educational experience at UVa, working on a research project with a faculty member, participating in a community project as part of a course requirement (service learning), studying abroad and academic advising. We report these results for the University overall and also break them down by school.

Overall Educational Experience

A large majority of UVa students evaluated their entire educational experience very highly. See Fig. 7.

- 55% of first-years and 58% of fourth-years rated their experience as “excellent,” compared to 39% and 44% for AAUDE institutions and 38% and 40% for Research Universities (VH) (sig. p<.001).
- 92% of first-years and 89% of fourth-years reported that, if they were to start over, they would probably or definitely attend UVa again, slightly higher than AAUDE institutions (87% and 86%) and Research Universities (VH) (87% and 85%) (sig. p<.001).
While satisfaction levels across all schools at the University were very high, schools differed significantly according to how many students rated their overall educational experience as "excellent." The School of Commerce had a higher proportion of students who rated the University as "excellent" (82%) compared to the College (53%) and Engineering (62%) (sig. p<.001). Architecture and Engineering also had higher proportions of students rating their experience "excellent" than did the College (77% and 62%, respectively) (sig. p<.05).

Research

A major learning goal of the University's Quality Enhancement Plan (QEP), required by the University's accrediting agency, the Southern Association of Colleges and Schools (SACS), is to "make research a fundamental part of the undergraduate experience," by improving both the quantity and quality of undergraduate research, expanding funding opportunities, and creating better linkages between faculty, graduate students and undergraduates.

One question on NSSE asks whether a student has worked on a research project with a faculty member outside of course or program requirements. Not surprisingly, only 3% of first-years said they had done this, while 41% more said they were planning to do so. These are slightly lower
compared to students at AAUDE institutions (5% and 40%) and Research Universities (VH) (5% and 38%) (sig. p<.001). However, 38% of UVa fourth-years have worked on such a research project, slightly higher than AAUDE and Research Universities (VH) (26% for both) (sig. p<.001).

Since 2002, the percentage of UVa fourth-years who said that they had worked with a faculty member on a research project outside of course or program requirements increased slightly. In 2002, 36% of fourth-year students reported working on such a research project.

Engineering had by far the highest proportion of students who reported that they had completed a research project with a faculty member outside of course or program requirements (45%), higher than the College (28%) (sig. p<.001), Architecture (19%) (sig. p<.05), Nursing (16%) (sig. p<.01), and Commerce (16%) (sig. p<.001). A higher proportion of College students reported doing research than Commerce (sig. p<.01).

**Academic Public Service (Service Learning)**

Another goal of the University's QEP is to "incorporate thoughtful public service into the curriculum." The objectives are to increase the number of students who engage in academic public service (applying academic knowledge to solving community problems), to foster an attitude of civic responsibility and to develop students' capacity to apply academic knowledge to solving community problems.

70% of UVa first-years and 63% of fourth-years never participated in a community-based project (e.g. service learning) as part of a regular course, compared to 63% of first-years and 59% of fourth-years at AAUDE institutions, nearly identical percentages for Research Universities (VH) (sig. p<.01 for first-year differences). The percentage of UVa students who had participated in a community-based project appears to have increased slightly since 2002. In 2002, 70% of fourth-years said they never participated, with 9% saying they had done so "often" or "very often." In 2008, 63% said "never" and 14% said "often" or "very often."

A related question is whether the students engaged in "community service or volunteer work." Here the University was ahead of its peers. 50% of first-years and 81% of fourth-years indicated that they had done so, somewhat higher than AAUDE and research institutions (VH), which had identical percentages (38% and 65%) (sig. p<.001).

When asked whether they had "participated in a community-based project (e.g. service learning) as part of a regular course," student responses by school varied substantially. The vast majority of Nursing students reported doing so (only 14% said "never"), much higher than Architecture (48% never) (sig. p<.01), Commerce (59%) (sig. p <.001), the College (64%) (sig. p <.001) and Engineering (67%) (sig. p <.001).

**Study Abroad**
Increasing the number of students studying abroad, and ensuring the quality of those experiences are an important focus of the University. Thirty-four percent of fourth-years reported studying abroad, compared to 21% and 22% of AAUDE and research institutions (VH) (sig. p<.001).

The 2008 figures for UVa show a small increase over 2005 (30%) and a large increase over 2002 (21%) (sig. p<.001).

A much higher percentage of Architecture and Commerce students reported studying abroad (52% and 51%) than the other schools. For Commerce, the difference with Nursing was significant at the .01 level; with Engineering the significance level was .001; with the College the significance level was .05. For Architecture the difference with Nursing was significant at the .01 level; with Engineering the significance level was .001. While Architecture students had a similar level of participation as Commerce students, the relatively small number of Architecture students responding prevented the difference from reaching statistical significance with the College. The College's study abroad percentages were at least double those from Nursing and Engineering (sig. p<.05 and .001, respectively).

### Academic Advising

Overall, 23% of UVa first-year students rated the quality of academic advising as excellent, lower than their counterparts at AAUDE (29%) (sig. p<.001) and Research Universities (VH) (24%) (sig. p<.01) [Note: The significance tests are conducted using mean scores which include all responses ("poor," "fair," "good" and "excellent"). Fourth-year ratings were similar between UVa (22% "excellent") and its peers--AAUDE and Research Universities (VH) (both 24%).

Over time, UVa student ratings of advising at the University improved for both first- and fourth-years. In 2000, 8% of first-years and 15% of fourth-years rated UVa's advising "excellent." Only the increase between 2000 and 2008 for first-years was statistically significant, however. (sig. p<.001). Ratings by first-year students at AAUDE institutions also increased but not as much as at UVa (20% to 29%). The advising question was not asked of all NSSE institutions in 2000, so there are no research university figures available.

Ratings of academic advising differed by school within UVa, as reported in Table 1. The only statistically significant differences, within UVa, occurred among fourth-years.

- College of Arts and Science fourth-years were the least satisfied with advising (54% "good" or "excellent"), with School of Nursing and School of Commerce fourth-years the most satisfied (78% for both) (sig. p<.001). School of Engineering fourth-years were also more satisfied with advising than students in the College (67%) (sig. p<.05).

- Other than the College, UVa was on a par with its peer institutions on advising for both first-years and fourth-years. Students from these peer universities reported satisfaction levels of 76% ("good" or "excellent") for first-years and 63% for fourth-years.

- While the College lags behind other schools at UVa and peer institutions, College first-years' ratings of advising have improved (56% in 2005 and 63% in 2008). See Table 2.
Looking farther back than 2005, the improvement in advising for the University has been
dramatic, driven primarily by improvements in the College. In 2000, only 32% of first-
year students rated their advising as good or excellent. In 2008, the figure was 64%,
representing a 100% improvement over the six-year period. In contrast, 58% of AAUDE
first-year students rated their advising "good" or "excellent" in 2000, compared to 75% in
2008--a significant increase but far less than at UVa. See Fig. 8.

Fourth-year advising at UVa also saw a significant improvement since 2000 (43% "good"
or "excellent" in 2000, compared to 60% in 2008). Again, AAUDE institutions increased,
but not quite as much (49% in 2000; 63% in 2008).

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Minority Students

Few important differences were found when comparing the responses of African-American, Asian-American, and Hispanic-American students to non-minority students at UVa. Overall each racial/ethnic group scored similarly on the five NSSE benchmarks, with one exception: first-year Hispanic students had slightly lower scores on the Active and Collaborative Learning index (39 versus 35 for non-Hispanic students) (sig. p<.05).

Individual questions examined were: ratings of the quality of relationships with other students, faculty and administrators, overall satisfaction with the University, whether the student would attend UVa again if they had it to do over, and satisfaction with the students' major/program.

- The only differences between the three groups of minority students and the rest of the sampled students for questions on the quality of relationships (students, faculty, administrators) were found for fourth-year African-Americans and Hispanics, which both rated their relationships with faculty slightly lower than other students' ratings. The difference for African-Americans was 4.9 versus 5.3 on a seven point scale, and the difference for Hispanics was 4.7 versus 5.3 (sig. p<.05).

- No other significant differences were found between minority students and other students according to these variables. This is an important finding because in the past, African-
American fourth-year students were somewhat less satisfied with the University compared to their peers. To learn more about African-Americans’ evaluations of the University in previous surveys, see IAS’ 2003 report: the Enrolled Undergraduate Student Relations Survey and a 2005 newsletter article on African-Americans and extracurricular activities.

- Between 2002 and 2008, African-American students' overall satisfaction with their educational experience at UVa improved steadily, while the satisfaction of other racial and ethnic groups has remained steady. The numbers in Fig. 5 below are based on the percentage of African-American students who rated their overall experience as "excellent". These results must be interpreted with caution because of the relatively small number of cases (37 first-years and 46 fourth-years in 2002; 73 first-years and 54 fourth-years in 2008). Nevertheless, the difference between first-year African-Americans in 2002 and 2008 is statistically significant (p<.05). When the results of first- and fourth-year satisfaction for a given year are combined, the increase in African-American satisfaction between 2002 and 2008 is also significant (p<.05).

- Another way of looking at this data is to compare African-American satisfaction levels to those reported by other racial/ethnic groups within a given year. In 2002 the gap between first-year African-American satisfaction and other racial/ethnic groups was large (43%) (sig. p<.001); the same was true of the gap in 2002 in fourth-year satisfaction (28%; sig. p<.001). In 2008, however, the gap in first-year satisfaction levels, between African-Americans and other racial/ethnic groups, is much smaller (24%) though still significant (p<.01). The fourth-year difference between African-Americans and other racial/ethnic groups was even smaller (14%) and did not reach significance at the .05 level. See Fig. 9.
Diversity

The NSSE survey asks several questions about diversity in the university environment:

*In your experience at your institution during the current school year, about how often have you done each of the following?*

- Included diverse perspectives (different races, religions, genders, political beliefs, etc.) in class discussions or writing assignments
- Had serious conversations with students of a different race or ethnicity other than your own
- Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal value

*To what extent does your institution emphasize each of the following?*

- Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

- Understanding people of other racial and ethnic backgrounds

The good news is that UVa scored as high as or higher than the AAUDE or other Research Universities (VH). In 2008, two-thirds of UVa students reported having serious conversations with students of a different race or ethnicity other than their own “often” or “very often,” during the school year. This compares to 57% for AAUDE institutions and 59% for Research Universities (VH) (sig. p<.001). Unfortunately, the percentage of UVa students engaging in serious conversations with students from a different race or ethnicity declined slightly between 2002 and 2008 (71% to 66%), while the percentage among peer institutions increased slightly--54% to 57% for AAUDE and 52% to 59% for Research Universities (VH).

![Fig. 10](https://example.com/figure10.png)

In 2005 nearly 60% of UVa students, both first- and fourth-years, reported that diverse perspectives were included in their class discussions and assignments often or very often. These numbers held steady in 2008, with 60% of first-years and 57% of fourth-years answering "often" or "very often." AAUDE and Research Universities (VH) showed very similar figures.

When asked in 2008 “to what extent has your experience at this institution contributed to your knowledge, skills, and personal development in understanding people of other racial and ethnic backgrounds?,” 58% of UVa first-years and 56% of fourth-years answered “very much” or “quite a bit.” This is similar to how students from AAUDE and Research Universities (VH) responded. UVa's figures represent a substantial increase over 2002. See Fig. 11.
In 2002, only 44% of UVa students responded “very much” or “quite a bit” when asked about UVa's contribution in encouraging contact among students from diverse backgrounds. The percentage rose to 52% in 2005 and 58% in 2008. These percentages are similar to AAUDE and Research Universities (VH).

A disturbing difference emerges, however, between the responses of first- and fourth-year UVa students, with first-years more likely than fourth-years to respond “very much” or “quite a bit” (65% v. 51%). This is similar to the pattern at AAUDE and Research Universities (VH).

To summarize, the NSSE results from the racial/ethnic subgroup analysis and the diversity questions yield good news for the University. In past NSSE surveys, African-Americans were less engaged in co-curricular activities and rated their overall University experience lower than non-minority students. By 2008, African-American and other minority students reported being engaged to the same extent as their peers both academically and in co-curricular activities, and they rate the University similarly to non-minority students. UVa compares favorably to other Research Universities (VH) on several questions related to racial diversity on-Grounds. Given
the attention the University has focused on issues concerning diversity, these results are both affirming and encouraging.

**High-Need Students**

**Background**

As part of a comprehensive plan to assess the effectiveness of AccessUVa, a four-year panel study was initiated in 2004-05 to see how students benefitting from AccessUVa fared in comparison to their peers and in comparison to students from previous graduating classes who did not receive the benefits of AccessUVa's no loan program. More about AccessUVa assessment. Results from 2004-05 were used primarily to establish a baseline from which to compare survey results from high-need fourth-year students who did *not* receive the benefits of AccessUVa to 1) their fourth-year peers in 2005 and 2) 2008 fourth-year high-need students who *did* receive four years of benefits from AccessUVa.

For more information about how the 2005 cohort compared to their peers, see the 2005 NSSE report AccessUVa Analysis. For information about the 2005 NSSE results, as well as results from three other surveys conducted in 2005 as part of the panel study--a survey of students who declined the University's offer of admission, a survey of newly admitted students, and a survey of students about financial aid-related topics--see AccessUVa Report of Results: Year One (2005).

A final report of the four-year panel study, to be issued in late spring 2009, will include findings from all surveys conducted between 2005 and 2008 to assess AccessUVa.

**This Report**

Here we analyze the performance of high-need students across the five benchmarks described in the first part of this report and on some key questions of interest: involvement in public service or service learning, study abroad, research, how much students are working for pay, and how students rate the quality of their relationships with students, faculty and staff. Across these benchmarks and questions, the important comparisons to be made are:

- high-need students versus students who receive no aid in 2008 (both first- and fourth-years);
- fourth-year high-need students from 2005 who received no benefit from AccessUVa and fourth-year high-need students in 2008 who did.

**Benchmarks Performance Among High-Needs in 2008**

The most important finding for the 2008 benchmarks is that fourth-year high-need students performed at the same level as their peers. These students who benefitted from four years of the AccessUVa no loan program performed on a par with students who received no financial aid. In addition, first-year high-need students performed similarly to their no-aid peers, with one exception: Enriching Educational Experiences. The difference is small to moderate--five points
on a hundred point scale (28.1 versus 32.6), but it is, nevertheless, noteworthy. See Table 3 below.

Table 3

<table>
<thead>
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<th>First-Year</th>
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<td>59.5</td>
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<td>40.0</td>
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<td>Enriching Educational Experiences*</td>
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<td>32.4</td>
<td>47.7</td>
<td>51.3</td>
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<td>Supportive Campus Environment</td>
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<td>62.9</td>
<td>59.4</td>
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<td>N</td>
<td>88</td>
<td>832</td>
<td>86</td>
<td>889</td>
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</table>

*Difference between first-year high-need and no aid group is statistically significant at p<0.05.

Benchmarks Performance Among High-Need Students in 2005 Versus 2008

How well did the cohort of 2008 fourth-year high-need students perform after benefitting from four years of the no loan program? How does their performance compare to the pre-AccessUVa cohort--fourth-year high-need students who graduated in 2005? If fourth-year high-need students in 2008 are performing better than fourth-year high-needs from 2005, this could be evidence that AccessUVa is providing a substantial benefit, in terms of student engagement. We can also examine the 2005 and 2008 benchmark performance levels of those students who received no aid. This will provide some evidence of whether any increase in performance among high-need students was just part of a general trend of increased performance. Short of performing an experiment with randomly assigned treatment and control groups, these comparisons are the best possible proxy for a controlled experiment.

On two of the benchmarks, Academic Challenge and Active and Collaborative Learning, fourth-year high-need students performed similarly in 2005 and 2008. On three of the benchmarks, high-need students performed at a higher level in 2008 than 2005, although only one (Enriching Educational Experiences) was statistically significant at the .05 level. The increase for Student-Faculty Interaction was significant at the .10 level. For students in 2005 and 2008 who received no aid, the scores were more stable. Where differences did exist, they were small, but statistically significant. See Table 4 below.

Table 4
The most notable 2005-08 benchmark comparison is for Enriching Educational Experiences. An explicit goal of AccessUVa was to ensure equal opportunities for high-need students in the area of co-curricular activities. High-need students without the benefit of AccessUVa logically would need to work for pay more to make ends meet and therefore have less time for co-curricular activities (Note: working for pay is discussed under the section about important individual questions, later in this analysis). Between 2005 and 2008, high-need students increased their performance on the Enriching Educational Experiences benchmark by 5.7 points (out of 100), a 14% increase (sig. at the .05 level). High-needs also increased their performance between 2005 and 2008 on the Student-Faculty Interaction index (sig. p<.10 level) benchmarks by 4.6 points. Supportive Campus Environment also increased, by 3.4 points, but this increase was not statistically significant.

When looking at the 2005 and 2008 performances of no-aid students, one sees fewer and smaller increases in performance and even some decreases. On Enriching Educational Experiences the increase was 1.7 points and on Supportive Campus Environment the increase was 2.7 points. While both of these increases are statistically significant, they are substantively less than half the size of the increases for high-need students on these benchmarks (5.7 and 4.6). For the remaining benchmarks, Academic Challenge, Student-Faculty Interaction, and Active and Collaborative Learning, no differences, or slight declines were found for no-aid students. As noted in Table 4 above, high-need students showed a 4.6 point increase for Student-Faculty Interaction and very slight increases for Academic Challenge and Active and Collaborative Learning (.9 and 1.3).

Individual Questions of Interest

Here we examine high-need participation in specific co-curricular activities (public service, study abroad and research), how much high-needs are working for pay, and how they rated their relationships with faculty, staff and students.
Two questions that are part of the Enriching Educational Experiences benchmark highlight the scale of improvement between fourth-year high need 2005 (pre-AccessUVa) and fourth-year high need 2008 (AccessUVa) students:

- Significantly more fourth-year high-need students in 2008 reported having done community or volunteer work than pre-AccessUVa, fourth-year high-need students in 2005 (85.3% versus 54.3%) (sig. p < .001).
- Fourth-year high-need students in 2008 were much less likely to say that they did NOT participate in co-curricular activities, when compared to pre-AccessUVa fourth-year high-need students in 2005 (20.7% versus 47.7) (sig. p < .05).

Both of these illustrations demonstrate moderate to large substantive differences between the 2005 high-need group and the 2008 high-need group.

Fourth-year high-need students in 2008 were less likely to have studied abroad than their no-aid counterparts (22.5% versus 36.3%). This is similar to a gap observed in 2005 between fourth-year high-need and no-aid students, prior to AccessUVa (16.2% versus 30%). While more fourth-year high need students studied abroad in 2008 than in 2005, this was also true of students who received no aid. It does not appear that AccessUVa is having an impact on increasing the number of high-need students who study abroad.

The percentage of fourth-year high-need students reported working on a research project with a faculty member outside of course or program requirements doubled between 2005 (pre-AccessUVa) and 2008 (14% versus 29%). A very similar percentage of fourth-year students in 2005 and 2008 who did not receive aid reported working on such a project.

The mean number of hours high-need fourth years worked for pay, compared to fourth-year students who receive no aid, increased a bit between 2005 (5.2 hours per week) and 2008 (7.7 hours per week). This is contrary to what one might expect if high-need students are receiving more aid. However, the increase is small, 8 hours per week is not a lot, and high-needs are not working much more than no-aid students, who worked a mean of 6.2 hours per week as fourth-years.

For the most part, high-need students in 2008 rated their relationships with faculty, staff and students similarly to no-aid students. The one exception is that fourth-year high-need students rated their relationships with other students a bit lower than no-aid students (5.3 versus 5.8) (sig. p < .05). This is a small difference but something that should be monitored.

**Summary and Conclusion: What Can We Learn from NSSE 2008?**

Between 2002 and 2008, the University's overall performance on NSSE benchmarks was stable. The strengths remain strengths and the weaknesses still need attention. NSSE 2008 results revealed strengths for the University in the following areas:

- Maintaining a challenging academic environment for all its students.
• Offering wide ranging and numerous opportunities for **Enriching Educational Experiences** (co-curricular)--the benchmark score was higher than our research university (VH) peers.

• Providing the support its students need to succeed academically, socially and in co-curricular activities (**Supportive Campus Environment**); this benchmark is the only one that showed consistent, albeit modest, improvement over time.

• Satisfying students with their overall educational experiences, more so than reported by students at our peer institutions--AAUDE and Research Universities (VH).

• Improving undergraduate advising for first-year students, particularly in the College, which has seen a dramatic increase in satisfaction since 2000.

• Engaging and satisfying minority students, as revealed by similar benchmark scores as non-minority students, and by expressed high levels of satisfaction with the University overall; the previously-observed lower satisfaction of African-American fourth-year students was not observed in the 2008 NSSE data.

• Maintaining, and even improving the engagement of low income students, especially in the area of co-curricular activities. AccessUVa appears to be a factor in this improvement.

• Getting UVa students to study abroad more than its peers at AAUDE and other Research Universities (VH); and significantly increasing the percentage of fourth-years who report having studied abroad.

The results of NSSE 2008 have also pointed to some **areas in need of improvement**:  

• **Student Faculty Interaction** remains UVa's weakest area since the University first participated in NSSE in 2000. UVa's first-year students are slightly below AAUDE and other Research Universities (VH) on this benchmark. Scores for both first- and fourth-years are in the bottom 50% of all NSSE institutions. The University has made "enhancing student-faculty engagement" the cornerstone of its QEP. Over the 10-year implementation of the QEP, NSSE results should reflect progress in attaining this goal.

• While the University's first- and fourth-year scores on the **Active and Collaborative Learning** index were similar to AAUDE and other Research Universities (VH), UVa ranks in the bottom 50% of all NSSE institutions on this benchmark for both first- and fourth-year students. It may be time for the University to begin examining best practices
in those schools within the University that are strong in this area (Commerce and Architecture), as well as other research institutions.

- Although ratings of first-year advising in the College have improved, fourth-year ratings have not, and may have even declined somewhat. Fourth-year students’ ratings of advising at AAUDE and Research Universities (VH) exceed ratings in the College. Looking to other schools within the University that demonstrated high ratings of advising may provide useful information as the College seeks to continue to improve its advising practices.

- While the percentage of students studying abroad has increased substantially, less than a majority take advantage of this opportunity. Further study could help determine if the reasons are primarily financial, or if they reflect a lack of understanding of opportunities available or concern for the time it takes the student away from his/her regular studies.

- Benchmark scores and key individual questions indicated considerable variability in the experiences of undergraduate students within their assigned schools. Different schools excelled in different areas. It may be worthwhile for those schools desiring to improve in some areas to collaborate with schools that are comparatively stronger to determine if/how any shortcomings might be addressed.

NSSE is a thoroughly-tested and informative assessment tool for an institution that is looking for ways to improve its undergraduate educational experience. To that end, the University community should celebrate its strengths. The good news for the University is that its strengths continue to outnumber its weaknesses. Nevertheless, there have been several areas of concern for the University over the years, and most of these have seen little or no improvement. Addressing its shortcomings will be a significant challenge to the University, especially in an environment of declining state support for colleges and universities.

For more information on this article or NSSE, contact the Office of Institutional Assessment and Studies at 4-3417 or IAAS@virginia.edu.

More Information about NSSE

Background information on NSSE, and the theory behind it: 
The NSSE and the College Student Report: Overview

Reports from other years: 
The NSSE and the College Student Report: Reports

Data from other years: 
The NSSE and the College Student Report: Data

NSSE questionnaires: 
The NSSE and the College Student Report: Questionnaires

Notes
Notes

More on the Enriching Educational Experiences Benchmark

Although UVa has participated in NSSE in 2000, 2002, 2005 and 2008, the survey and analysis provided by NSSE staff (based at Indiana University in Bloomington) has undergone significant revision. Three major changes were announced in 2005: a) an additional calculation of the five benchmarks (Academic Challenge, Active and Collaborative Learning, Enriching Educational Experiences, Student-Faculty Interaction, and Supportive Campus Environment) at the student level to help Universities compare differences between students within institutions. The standard calculation was an institutional score for comparisons between institutions; b) some changes to the way the "Enriching Educational Experiences" benchmark was calculated, making year-to-year comparisons after 2005 invalid and; c) UVa’s benchmark scores are no longer presented as percentile scores relative to other Research Universities (VH), AAUDE peers, and the entire NSSE cohort for 2005. This means that we are unable to tell whether or not UVa improved its scores on each benchmark relative to our peers in relative terms.

NSSE has included a new benchmark report, “Comparisons with Highly Engaging Institutions,” that compares UVa’s benchmark scores to the top 50% and 10% of the entire NSSE cohort for 2005. This means that UVa’s benchmark scores are compared to many small, selective liberal arts colleges, master’s level regional state universities, and a relatively smaller number of Research Universities (VH) institutions.

Individual question means were tested for statistical differences, comparing the University to AAUDE institutions and Research Universities (VH). NSSE did not release a complete list of the 29 Research Universities (VH) that participated in NSSE in 2008. A list of participants by state can be found on NSSE's website. Because of the large number of respondents, many comparisons between UVa and its peers [(AAUDE and Research Universities (VH))] were statistically significant. This is why it is important to look not just at the statistical significance but also the effect size when examining these comparisons. All of the University’s individual question “effect size” comparisons, both positive and negative, were between .01 and .68; in other words all of the observed differences between UVa and its peers on individual questions were small to moderate. This is an important point to keep in mind when examining individual question mean scores, differences with peer groups, and effect sizes. A few of the observed differences on benchmark scores between schools within the University were large and are highlighted in this report.

AAUDE institutions: Indiana University Bloomington, Iowa State University, Rutgers University-New Brunswick/Piscataway, Stony Brook University, The University of Texas at Austin, University at Buffalo, State University of New York, University of Florida, University of Illinois at Urbana-Champaign, University of Iowa, University of North Carolina at Chapel Hill, University of Wisconsin-Madison

The statistical basis for these terms--small, moderate and large is the effect size difference, calculated by dividing the mean difference between two scores by the pooled standard deviation. This calculation results in numbers from 0 to 1, either positive (higher than the comparison
group) or negative (lower than the comparison group). A statistically significant effect size between .1 and .3 is defined as a slight difference; an effect size between .4 and .6 is defined as a moderate difference; and an effect size between .7 and .9 is defined as a large difference.

The wording in 2000 for the academic advising question was slightly different than 2005 and 2008, and this difference may have affected the results between 2000 and 2008. The questionnaire written by NSSE did not ask about advising in 2000 but a section written by the AAUDE consortium did. While still on a 4-point scale, the wording of the question was different: "How would you rate the quality of academic advising you received from your college or department at the University?" In 2005, the wording was "Overall, how would your rate the quality of academic advising you have received at your institutions?"