

Research Brief

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2009 National Survey of Student Engagement Benchmarks for Effective Educational Practice: Areas of Strength and Opportunities for Improvement

Introduction

In the spring of 2009, IUPUI was one of 640 colleges and universities nationwide that administered the National Survey of Student Engagement (NSSE). The survey, which assesses undergraduates' engagement in educationally purposeful activities and what they learn from their college experiences, is based on decades of research on undergraduate teaching and learning. (National Survey of Student Engagement, 2009) Included in the final NSSE report are five "Benchmarks of Effective Educational Practice." These Benchmarks were developed to compare institutions against specified peer groups and the entire NSSE cohort with regards to practices that are related to student success. Each Benchmark consists of a group of scaled items derived from the NSSE survey. The five Benchmarks are Level of Academic Challenge (LAC), Active and Collaborative Learning (ACL), Student-Faculty Interaction (SFI), Enriching Educational Experiences (EEE), and Supportive Campus Environment (SCE).

NSSE Participants

NSSE is distributed to a randomly selected sample of first-year and senior students. During the spring 2009 survey administration, 656 out of 2,478 first-year and 778 out of 2,524 senior students invited to complete the survey did so for response rates of 26% and 31% respectively. Both first-year and senior NSSE respondents were significantly more likely to be female, an international student, or attending full-time compared to the entire population of their cohort. Senior NSSE respondents who completed the ACT also scored significantly higher than the entire senior population. Other than these variables, respondents were similar to the entire cohort.

The Benchmark Comparisons Report (provided by NSSE as part of the Institutional Report) includes comparisons between IUPUI, selected official peers, all research universities participating in NSSE, and all institutions participating in NSSE on each of the five full scales. This Research Brief summarizes noteworthy differences between IUPUI respondents and selected official peers, all research universities participating in NSSE, and all institutions participating in NSSE on several items included in the NSSE Benchmarks. The results identify several strengths in the programs, campus environment, and educational practices of IUPUI. In addition, the results highlight specific areas where opportunities for improvement exist. Individual School reports and a list of institutions included in the IUPUI peer group are also available at <http://planning.iupui.edu/95.html>.

Note on Effect Sizes

Effect sizes are useful for determining the extent of the difference between experimental and control groups (Glass and Hopkins, 1996). These are reported as standard deviations above or below a comparison-group mean. Gonyea, Sarraf, & Chen (2009) indicated that with the large sample size of the NSSE survey effect sizes below 0.1 should be considered trivial, effect sizes between 0.1 and 0.29 should be considered small, effect sizes between 0.3 and 0.49 should be considered medium, and effect sizes between 0.5 to 0.69 should be considered large. Effect sizes greater than 0.7 should be considered to be very large.

Most effect sizes between IUPUI respondents and NSSE comparison groups should be considered small or trivial, with a handful of effect sizes considered medium or large. This Research Brief discusses the largest effect size differences between IUPUI and its comparison groups.

Level of Academic Challenge

Items in the Level of Academic Challenge benchmark reflect the degree to which colleges and universities encourage student development via academically demanding work, extended effort, and stimulating mental activities. Scores for IUPUI and comparisons groups on the Level of Academic Challenge benchmark are displayed in figures 1 and 2.

Figure 1
Level of Academic Challenge for
First-Year Respondents

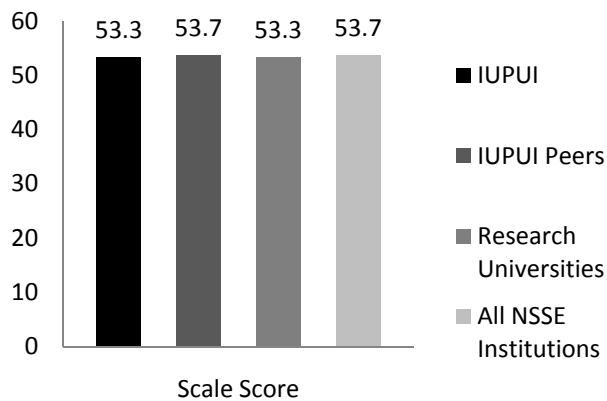
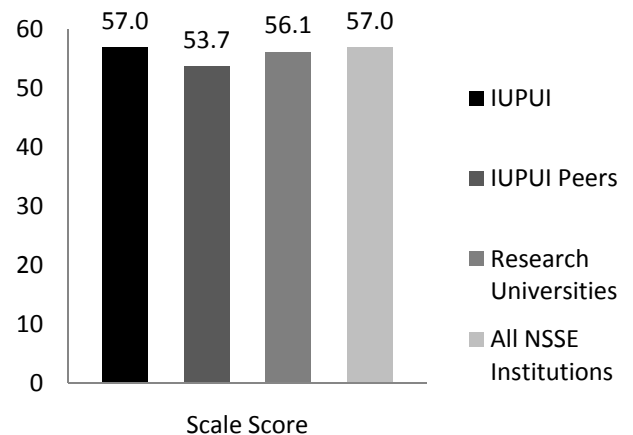


Figure 2
Level of Academic Challenge for
Senior Respondents



Areas of Strength

The greatest differences in scores were for first-year students. When asked if the campus environment emphasizes spending a significant amount of time studying and on academic work, the mean score for IUPUI respondents was 0.18 standard deviations greater than peer institutions and 0.17 standard deviations greater than all NSSE institutions. The mean score of IUPUI respondents was 0.13 standard deviations greater than other research universities when asked if they worked harder than they thought they could to meet an instructor's expectations. These results suggest that IUPUI first-year students, are on average devoting considerable time and energy to their classes.

Opportunities for Improvement

IUPUI first-year respondents scored 0.15 standard deviations below peer institution first-years when asked if their coursework emphasizes analysis of the basic elements of an idea, experience or theory and 0.13 standard deviations below peer institutions when asked if their coursework emphasizes making judgments about the value of information, arguments or methods. These are two of the five items that are included in the Mental Activities section of the survey. The items in this section ask students to report the extent to which their coursework emphasizes higher order thinking skills. IUPUI first-year respondents also scored 0.14 standard deviations below other research universities and 0.15 standard deviations below all NSSE institutions with regard to the number of assigned textbooks, books, or book-length packs of course readings.

Active and Collaborative Learning

Active and Collaborative Learning benchmark questions ask students to report on the extent to which they are required to think about and apply what they are learning and to work with other students to solve problems and master difficult material. Scores for IUPUI and its comparisons groups on the Active and Collaborative Learning benchmark are displayed in figures 3 and 4.

Figure 3
Active and Collaborative Learning
for First-Year Respondents

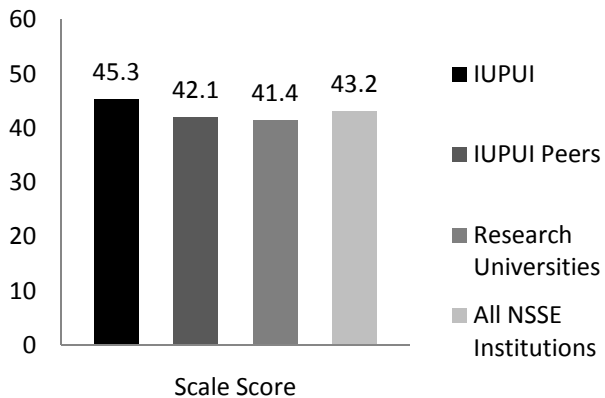
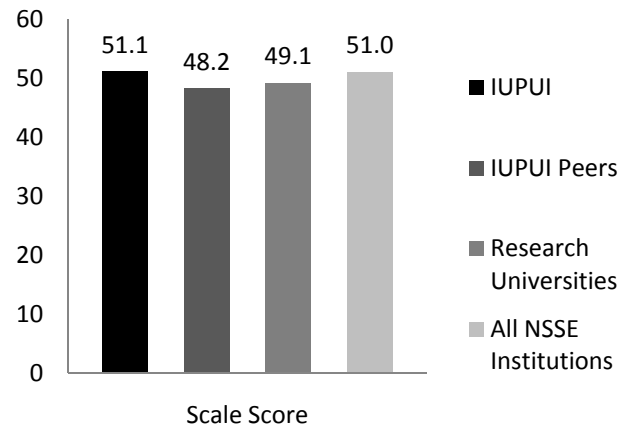


Figure 4
Active and Collaborative Learning
for Senior Respondents



Areas of Strength

IUPUI students scored particularly high on the Active and Collaborative learning benchmark compared to their peers. Overall, the effect size between IUPUI and peer institutions for first-year respondents was 0.19, and the difference was 0.17 for seniors. First-year respondents scored 0.24 standard deviations above first-years at peer institutions and scored 0.20 standard deviations above peer institutions on the question about working with other students on projects during class. IUPUI's commitment to civic engagement was reflected in how often students indicated they participated in community-based projects as part of a regular course. First-year respondents scored 0.30 standard deviations above peer institutions on this item, and seniors scored 0.19 standard deviations above peers.

Opportunities for Improvement

The only question on this scale in which IUPUI respondents scored noticeably low was when students were asked to indicate how often they worked with classmates outside of class to prepare class assignments. IUPUI first-year students were 0.18 standard deviations below other research university first-year students on this item, and IUPUI seniors were 0.19 below their counterparts at other research universities. This may reflect the large percentage of non-traditional and commuter students attending IUPUI.

Student-Faculty Interaction

This benchmark assesses the degree to which students interact with faculty both in and out of class. Scores for IUPUI and comparisons groups on the Student-Faculty Interaction benchmark are displayed in figures 5 and 6.

Figure 5
Student-Faculty Interaction for First-Year Respondents

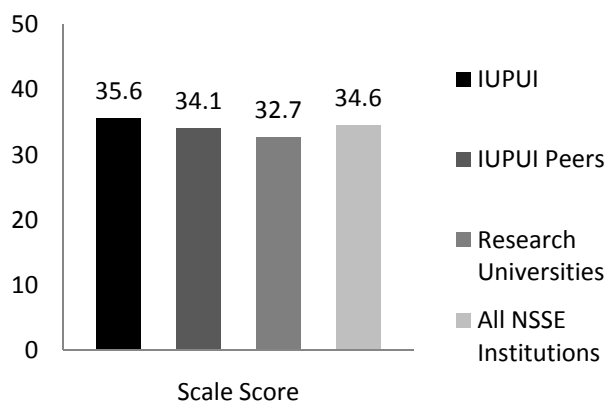
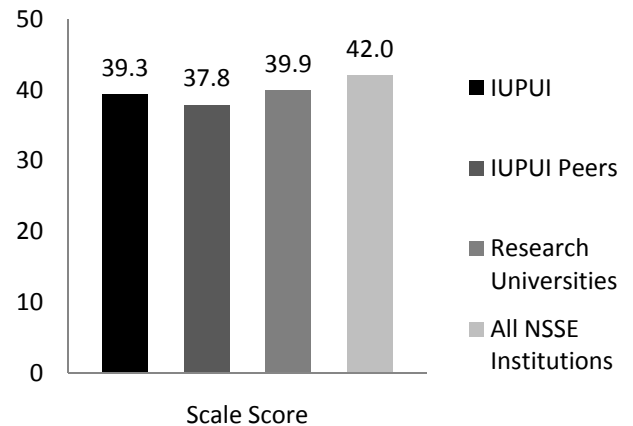


Figure 6
Student-Faculty Interaction for Senior Respondents



Areas of Strength

There was a moderate difference in effect size between IUPUI first-year students and first-year students at other research universities (IUPUI first-year students scored 0.17 standard deviations greater). This is primarily due to the item in which respondents were asked to indicate how often they talked about career plans with a faculty member or advisor. IUPUI first-year respondents scored 0.19 standard deviations above first-years at peer institutions and 0.23 above other research universities on this item. Discussing career plans with an advisor is part of the University College program, and scores on this item appear to reflect this strength.

Enriching Educational Experiences

Items included in this benchmark reflect student participation in supplemental programs and opportunities that can facilitate learning. Scores for IUPUI and comparisons groups on the Enriching Educational Experiences benchmark are displayed in figures 7 and 8.

Figure 7
Enriching Educational Experiences
for First-Year Respondents

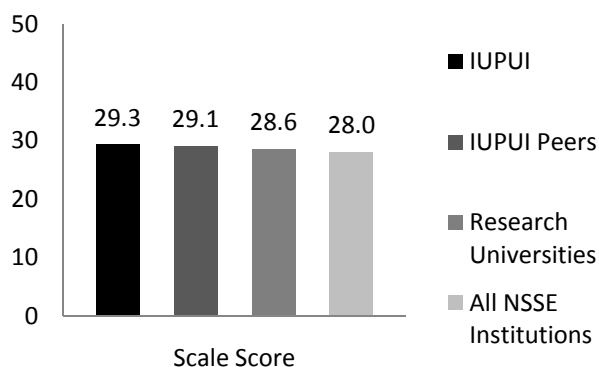
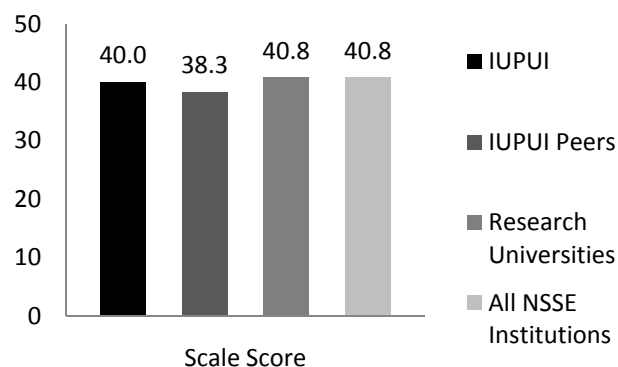


Figure 8
Enriching Educational Experiences
for Senior Respondents



Areas of Strength

IUPUI respondents were significantly more likely to indicate that they had participated in a learning community or some other formal program where groups of students take two or more classes together. First-year IUPUI respondents scored 0.60 standard deviations greater than first-year students at peer institutions, and IUPUI seniors scored 0.23 standard deviations greater than students at peer institutions. IUPUI senior respondents also scored 0.30 standard deviations higher than their counterparts at peer institutions when asked if they had participated in a culminating senior experience.

Opportunities for Improvement

When asked how often they had participated in co-curricular activities, IUPUI first-year respondents scored 0.28 standard deviations below first-year respondents at peer institutions and 0.43 standard deviations below respondents at other research universities. IUPUI seniors also scored 0.33 standard deviations below seniors at other research universities. First-year respondents at IUPUI also scored below their counterparts at peer institutions with regard to two items asking how often they had serious conversations with different types of students. IUPUI first-year students were 0.28 standard deviations below first-year students at peer institutions with regard to how often they had serious conversations with students of a different race or ethnicity than their own, and 0.26 standard deviations below first-year students at peer institutions with regard to how often they had serious conversations with students of different religious beliefs, political opinions, or personal values.

Supportive Campus Environment

The Supportive Campus Environment benchmark measures the degree to which students feel their institution is dedicated to student success and fosters positive relationships with others on campus. Scores for IUPUI and comparisons groups on the Supportive Campus Environment benchmark are displayed in figures 9 and 10.

Figure 9
Supportive Campus Environment
for First-Year Respondents

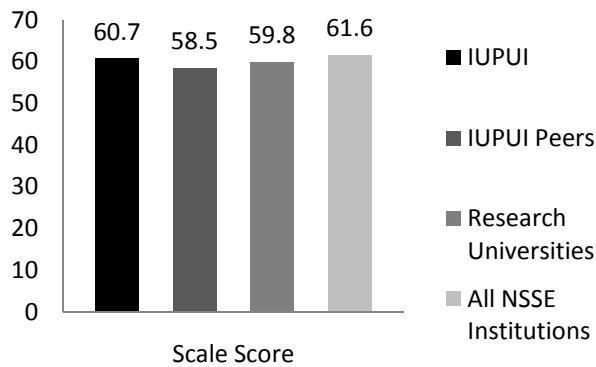
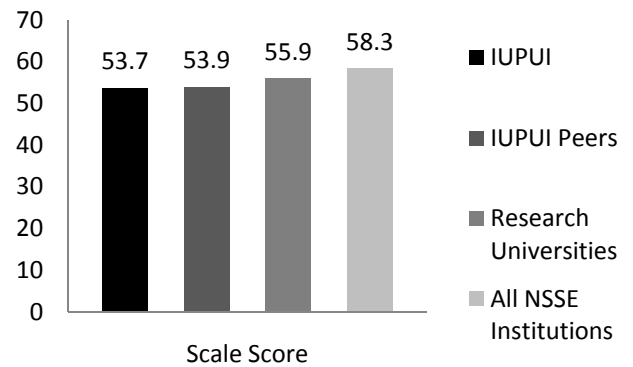


Figure 10
Supportive Campus Environment
for Senior Respondents



Areas of Strength

When rating the quality of their relationships with administrative personnel and offices, both IUPUI first-year and senior respondents scored greater than their counterparts at peer institutions (0.25 standard deviations greater for first-years and 0.22 standard deviations greater for seniors).

Opportunities for Improvement

IUPUI senior respondents scored moderately lower on this scale compared to senior respondents at other research universities. Seniors at IUPUI scored 0.29 standard deviations below seniors at other research universities when asked to what extent the campus environment provides the support they need to thrive socially. IUPUI seniors also scored 0.12 standard deviations below other research universities when rating the extent to which the campus environment helps them cope with non-academic responsibilities and when rating the quality of relationships with other students.

References

- Glass, G. V. & Hopkins, K. D. (1996). *Statistical methods in education and psychology: Third edition*. Needham Heights, MA: Boston.
- Gonyea, R., Sarraf, S., & Chen, P. S. (2009, March). *Contextualizing NSSE effect sizes: Empirical analysis and interpretation of benchmark comparisons*. Paper presented at the Twenty-Third Annual INAIR Conference, Indianapolis, IN.
- National Survey of Student Engagement. (2009). *Assessment for improvement: Tracking student engagement over time-Annual results 2009*. Bloomington, IN: Indiana University Center for Postsecondary Research.

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Attachment A.

Items Comprising the NSSE Benchmarks

Level of Academic Challenge

- 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
- Number of written papers or reports of between 5 and 19 pages
- Number of written papers or reports of 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
- Worked 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

Active and Collaborative Learning

- Asked questions in class or contributed to class discussions
- Made a class presentation
- Worked with other students on projects during class
- Worked with classmates outside of class to prepare class assignments
- Tutored or taught other students (paid or voluntary)
- Participated in a community-based project (e.g., service learning) as part of a regular course
- Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

Student-Faculty Interaction

- Discussed grades or assignments with an instructor
- Talked about career plans with a faculty member or advisor
- Discussed ideas from your readings or classes with faculty members outside of class
- Worked with faculty members on activities other than coursework (committees, orientation, student-life activities, etc.)
- Received prompt written or oral feedback from faculty on your academic performance

Enriching Educational Experiences

- Participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, etc.)

Enriching Educational Experiences (cont.)

- Practicum, internship, field experience, co-op experience, or clinical assignment
- Community service or volunteer work
- Foreign language coursework
- Study abroad
- Independent study or self-designed major
- Culminating senior experience (capstone course, senior project or thesis, comprehensive exam, etc.)
- Serious conversations with students of different religious beliefs, political opinions, or personal values
- Serious conversations with students of a different race or ethnicity than your own
- Using electronic medium (e.g., listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment
- Campus environment encouraging contact among students from different economic, social, and racial or ethnic backgrounds
- Participate in a learning community or some other formal program where groups of students take two or more classes together

Supportive Campus Environment

- Campus environment provides the support you need to help you succeed academically
- Campus environment helps you cope with your non-academic responsibilities (work, family, etc.)
- Campus environment provides the support you need to thrive socially
- Quality of relationships with other students
- Quality of relationships with faculty members
- Quality of relationships with administrative personnel and offices