

## Memorandum

To: University Community  
From: Karen M. Gentemann  
Subject: National Survey of Student Engagement Results (NSSE)  
Date: March 23, 2001

George Mason University was one of the early participants in a new national survey supported by the Pew Charitable Trusts and cosponsored by The Carnegie Foundation for the Advancement of Teaching and The Pew Forum on Undergraduate Learning. This new survey uses student self-reports to reveal whether and how institutions are actually using their resources to engage students in various learning experiences.

The questions asked on the NSSE College Student Report focus on the extent to which students participate in the educational processes that are known to contribute to desirable educational outcomes. The information comes from students who are at two key points in their undergraduate program: near the end of the first year of college and just before graduation. More than 63,000 randomly selected undergraduates from 276 colleges and universities, including several of our SCHEV-approved peer institutions, completed the College Student Report in spring 2000. At George Mason, 45% of those sampled completed the survey, compared to 39% for doctoral institutions and 42% for all NSSE institutions.

### ***Benchmark Report***

The attached report is in two parts; the first provides institutional benchmarks for George Mason and the second (the last page) is an institutional engagement index. The benchmark report compares our students with students from those schools identified as Doctoral-Intensive (the new Carnegie classification which also includes George Mason University) as well as with all students who completed the survey (NSSE 2000). The five benchmark categories are:

- level of academic challenge,
- active and collaborative learning,
- student interactions with faculty members,
- enriching educational experiences, and
- supportive campus environment

**George Mason first-year students fare favorably in all five of these comparisons with other doctoral-intensive college students and score only slightly below the NSSE 2000 sample. Senior-level students fared similarly,** scoring below all NSSE 2000 students and at or above all doctoral-intensive college students on each benchmark with the exception of “Student Interactions with Faculty Members,” where George Mason seniors scored below both comparison groups.

These benchmark results are also shown as percentiles on page five of the report. These percentiles tell us that compared to doctoral-intensive college students, **first-year George Mason students are, at a minimum, above the 50<sup>th</sup> percentile in all five benchmark categories**, and are between the 70<sup>th</sup> and 80<sup>th</sup> percentile on “Active and Collaborative Learning.”

**George Mason seniors also scored above the 50<sup>th</sup> percentile compared to doctoral-intensive students on all but “Student Interactions with Faculty,” where Mason scored between the 20<sup>th</sup> and 30<sup>th</sup> percentile.** This means that 70-80% of doctoral-intensive college students scored higher on this benchmark than Mason.

### ***Institutional Engagement Index***

The second part of this report, the “Institutional Engagement Index,” presents a set of scores, reflecting the five benchmark categories, that represent the actual scores of George Mason students, the predicted scores (based on background characteristics and selected institutional information) and the differences between the two sets of scores. Based on this index, **George Mason freshmen do better than predicted on three of the five benchmarks, particularly on “Active and Collaborative Learning.” Seniors do better than predicted on four of the benchmarks, particularly on “Supportive Campus Environment,” “Enriching Educational Experiences,” and “Active and Collaborative Learning.”**

The NSSE report presents an opportunity to examine how well we are doing on five important goals that the research literature suggests make a difference in student educational outcomes. **While George Mason fares well in comparison to the other doctoral-intensive institutions, there are clear opportunities for improvement in all five areas. In particular, this report points to the need for improvement regarding “Student Interactions with Faculty” at the upper-class level.**

*The NSSE 2000 Report: National Benchmarks of Effective Educational Practice*, which includes additional information about this project and additional analyses of the findings for 2000, is available upon request from the Office of Institutional Assessment.

Attachment

*Karen M. Gentemann, Ph.D.*  
*Director, Institutional Assessment*  
*genteman@gmu.edu*  
*993-8836*  
*MS 3D2*  
*<http://assessment.gmu.edu>*

# National Survey of Student Engagement (NSSE) 2000

## Institutional Benchmarks

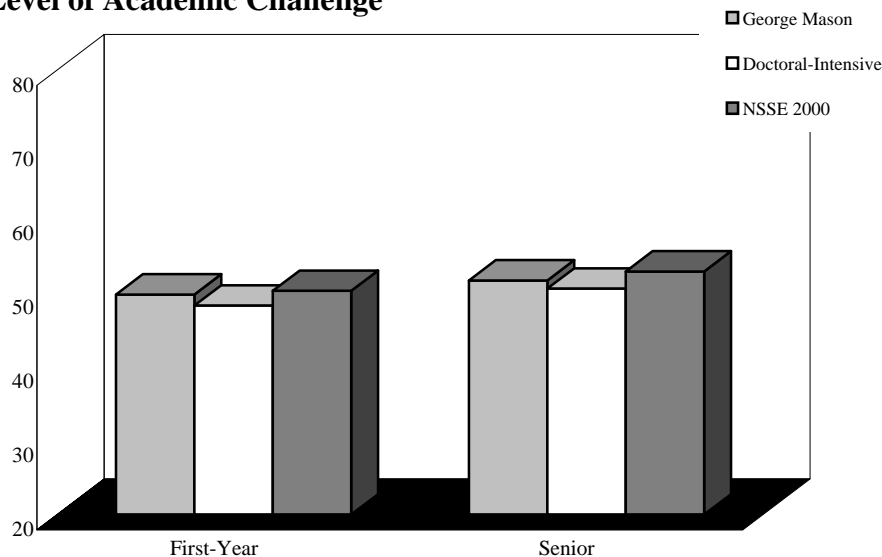
### George Mason University

The NSSE survey, *The College Student Report*, measures student engagement in many important activities that research studies show are positively related to learning and personal development. Forty questions from the survey are assigned to five clusters of similar type activities to make up the national benchmarks of effective educational practice. The benchmarks are created on 100-point scales to make it easier to compare performance within and across sectors and institutional types.

These benchmarks are: (a) level of academic challenge, (b) active and collaborative learning, (c) student interactions with faculty members, (d) enriching educational experiences, and (e) supportive campus environment. The NSSE information is from more than 63,000 randomly selected students from 276 four-year colleges and universities. The students represent a broad cross-section of first-year and senior students from every region of the country. The institutions are similar in most respects to the universe of four-year schools. More detailed information on the benchmarks can be found in the national report that was sent with this mailing.

This report provides a summary of your institution's performance on these five effective educational practices. Your institution's benchmark scores are presented and compared to schools in your 2000 Carnegie Classification and to the NSSE 2000 national norms. Page 4 provides some additional information, including a standard score which represents the magnitude of the difference between your institution's score and the respective comparison group, and page 5 presents a table of NSSE 2000 and Carnegie classification percentiles against which you can gauge the relative performance of your institution on each of the benchmarks.

#### Level of Academic Challenge



#### Level of Academic Challenge Items:

Preparing for class (studying, reading, writing, rehearsing, and other activities related to your 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 fewer than 20 pages

Coursework emphasizes: Analyzing the basic elements of an idea, experience or theory

Coursework emphasizes: Synthesizing and organizing ideas, information, or experiences

Coursework emphasizes: Making judgments about the value of information, arguments, or methods

Coursework emphasizes: Applying theories or concepts to practical problems or in new situations

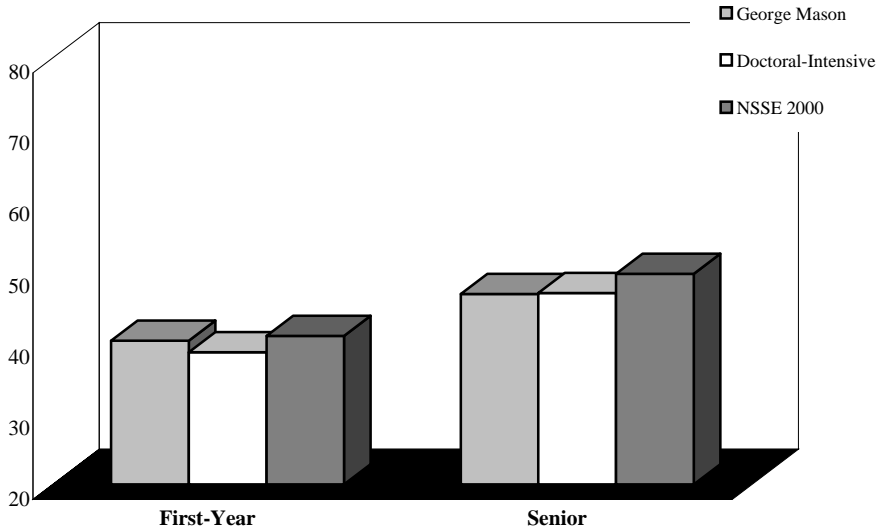
Worked harder than you thought you could to meet an instructor's standards or expectations

Campus environment emphasizes spending significant amounts of time studying and on academic work

#### Benchmark Scores

	Institution	2000 Carnegie Classification	National
	<b>George Mason</b>	<b>Doctoral-Intensive</b>	<b>NSSE 2000</b>
<b>First-Year</b>	49.7	48.2	50.2
<b>Senior</b>	51.6	50.5	52.8

## Active and Collaborative Learning



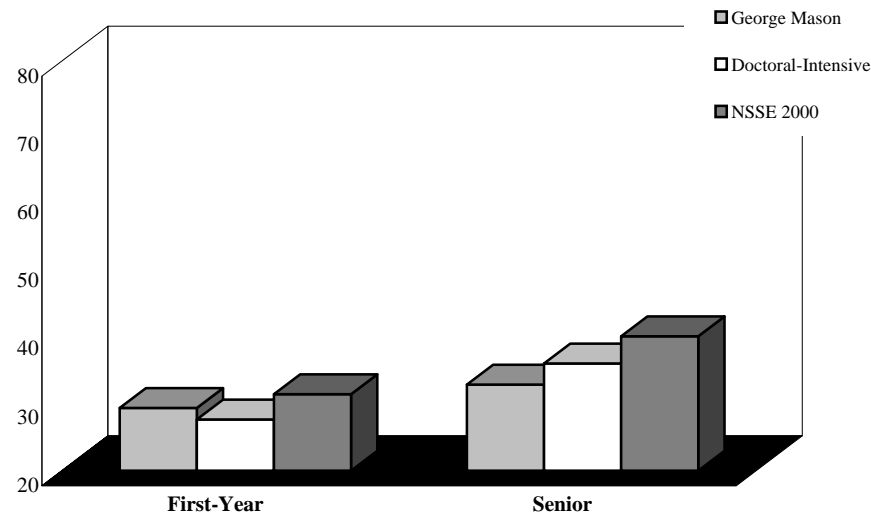
*Benchmark Scores*

	Institution	2000 Carnegie Classification	National
	<b>George Mason</b>	<b>Doctoral-Intensive</b>	<b>NSSE 2000</b>
<b>First-Year</b>	40.2	38.6	40.9
<b>Senior</b>	46.8	46.9	49.6

### Active and Collaborative Learning Items:

- 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
- Participated in a community-based project as part of a regular course
- Discussed ideas from your reading or classes with others outside of class (students, family members, co-workers, etc.)

## Student Interactions with Faculty Members



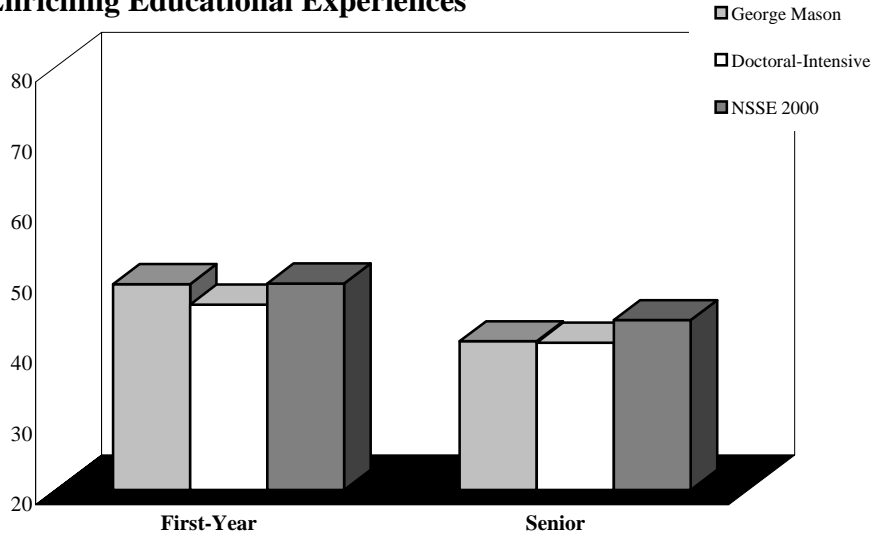
*Benchmark Scores*

	Institution	2000 Carnegie Classification	National
	<b>George Mason</b>	<b>Doctoral-Intensive</b>	<b>NSSE 2000</b>
<b>First-Year</b>	29.2	27.5	31.2
<b>Senior</b>	32.6	35.7	39.7

### Student Interactions with Faculty Members Items:

- Discussed grades or assignments with an instructor
- Talked about career plans with a faculty member or advisor
- Discussed ideas from your reading 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 feedback from faculty on your academic performance
- Worked with a faculty member on a research project

## Enriching Educational Experiences



*Benchmark Scores*

	Institution	2000 Carnegie Classification	National
	<b>George Mason</b>	<b>Doctoral-Intensive</b>	<b>NSSE 2000</b>
<b>First-Year</b>	49.2	46.3	49.3
<b>Senior</b>	41.1	40.9	44.1

### Enriching Educational Experiences Items:

Participating in co-curricular activities (organizations, publications, student government, sports, etc.)

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 (comprehensive exam, capstone course, thesis, project, etc.)

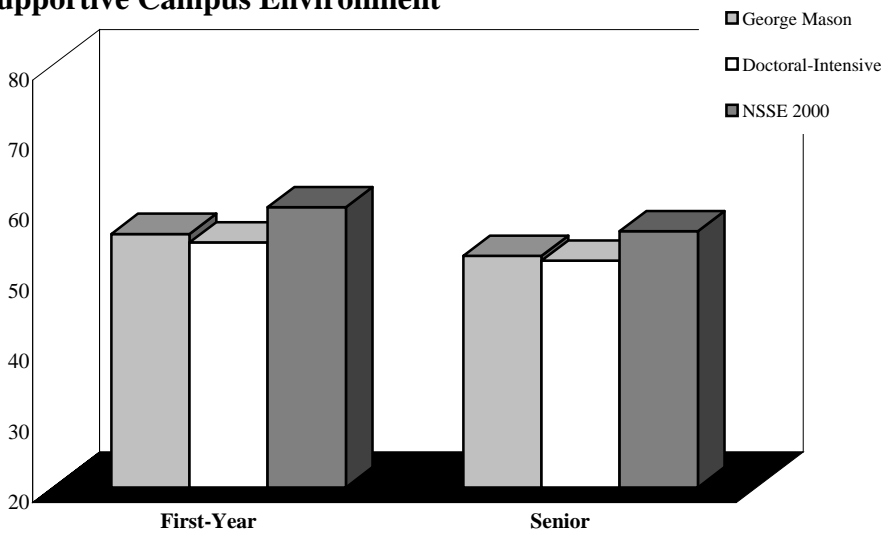
Had serious conversations with students with religious beliefs, political opinions, or personal values very different from yours

Had serious conversations with students of a different race or ethnicity than your own

Used an electronic medium (e-mail, list-serve, chat group, etc.) to discuss or complete an assignment

Campus environment encourages contact among students from different economic, social, and racial or ethnic backgrounds

## Supportive Campus Environment



*Benchmark Scores*

	Institution	2000 Carnegie Classification	National
	<b>George Mason</b>	<b>Doctoral-Intensive</b>	<b>NSSE 2000</b>
<b>First-Year</b>	56.0	54.8	59.8
<b>Senior</b>	52.9	52.2	56.4

### Supportive Campus Environment Items:

Campus environment emphasizes providing the support you need to help you succeed academically

Campus environment emphasizes helping you cope with your non-academic responsibilities (work, family, etc.)

Campus environment emphasizes providing the support you need to thrive socially

Quality of relationships with other students

Quality of relationships with faculty members

Quality or relationships with administrative personnel and offices

## NSSE 2000 National Benchmark Summary Statistics George Mason University

First-Year				
Benchmark	George Mason Benchmark Score	Comparison Group Statistics <sup>a</sup>		
			Doctoral-Intensive	NSSE 2000
<b>Level of Academic Challenge</b>	49.7	Benchmark Score	48.2	50.2
		Score Difference	1.5	-0.5
		Standard Deviation	4.4	4.5
		Standard Score	0.3	-0.1
<b>Active and Collaborative Learning</b>	40.2	Benchmark Score	38.6	40.9
		Score Difference	1.6	-0.7
		Standard Deviation	4.4	4.5
		Standard Score	0.4	-0.2
<b>Student Interactions With Faculty Members</b>	29.2	Benchmark Score	27.5	31.2
		Score Difference	1.7	-2.0
		Standard Deviation	3.6	4.8
		Standard Score	0.5	-0.4
<b>Enriching Educational Experiences</b>	49.2	Benchmark Score	46.3	49.3
		Score Difference	2.9	-0.1
		Standard Deviation	7.4	7.2
		Standard Score	0.4	0.0
<b>Supportive Campus Environment</b>	56.0	Benchmark Score	54.8	59.8
		Score Difference	1.2	-3.8
		Standard Deviation	4.4	5.9
		Standard Score	0.3	-0.6
		Number of Institutions	22	276

### <sup>a</sup> Explanation of Statistics

**Benchmark Score:** The institutional benchmark score is the weighted arithmetic average (mean) of corresponding survey items, calculated by dividing the sum of values for each item by the total number of students responding to that item. Each benchmark was put on a 100-point scale. Comparison group benchmark scores are the average of all institutional benchmarks within the group.

**Score Difference:** The result of subtracting the comparison group score (2000 Carnegie Classification or national) from your institution's score on each benchmark.

**Standard Deviation:** A measure of the divergence or spread of the benchmark scores. The greater the dispersion of scores the larger the standard deviation.

**Standard Score:** In statistical terms, this is called a *z* score. It is the standardized magnitude of the difference between your school's benchmark score and the average of the comparison group. It is calculated by dividing the score difference by the comparison group's standard deviation. A standard score of 0.5 equates to a benchmark score that is greater than 69% of comparison group schools, and 1.0 is better than 84%. Likewise, a standard score of -0.5 corresponds to an institution that is better than only 31% of the comparison group, and a -1.0 corresponds to an institution that is better than only 16% of the comparison group. Note the sign of the score. A positive sign means that your institution's score was greater than the comparison group, thus showing an affirmative result for the institution. A negative sign indicates the institution lags behind, suggesting that the student behavior or institutional practice represented by the benchmark may warrant attention.

Senior				
Benchmark	George Mason Benchmark Score	Comparison Group Statistics <sup>a</sup>		
			Doctoral-Intensive	NSSE 2000
<b>Level of Academic Challenge</b>	51.6	Benchmark Score	50.5	52.8
		Score Difference	1.1	-1.2
		Standard Deviation	3.3	4.0
		Standard Score	0.3	-0.3
<b>Active and Collaborative Learning</b>	46.8	Benchmark Score	46.9	49.6
		Score Difference	-0.1	-2.8
		Standard Deviation	4.7	4.4
		Standard Score	0.0	-0.6
<b>Student Interactions With Faculty Members</b>	32.6	Benchmark Score	35.7	39.7
		Score Difference	-3.1	-7.1
		Standard Deviation	4.6	6.3
		Standard Score	-0.7	-1.1
<b>Enriching Educational Experiences</b>	41.1	Benchmark Score	40.9	44.1
		Score Difference	0.2	-3.0
		Standard Deviation	6.5	6.6
		Standard Score	0.0	-0.5
<b>Supportive Campus Environment</b>	52.9	Benchmark Score	52.2	56.4
		Score Difference	0.7	-3.5
		Standard Deviation	4.1	6.2
		Standard Score	0.2	-0.6
		Number of Institutions	22	273

# NSSE 2000 National Benchmark Percentiles

## George Mason University

These tables present the range of institutional scores by percentile for the five effective educational practice benchmarks for both first-year and senior students. Percentiles are listed for both the NSSE 2000 national results and by the 2000 Carnegie Classifications. A *percentile* is the point in a distribution at or below which a given percentage of institutional benchmark scores fall. That is, the 60th percentile represents the point at or below which 60 percent of the institutional benchmark scores fall for the respective comparison group. To help you gauge your institution's performance relative to the comparison groups, the shaded areas on the NSSE 2000 and Carnegie classification tables indicate the percentiles that are *less than or equal to* your benchmark score. For example, if your benchmark score on Level of Academic Challenge for first-year students is 53.6, then your institution falls within the 70th and 80th percentile range on the NSSE 2000 table, and very close to the 90th percentile on the Doctoral-Extensive table.

NSSE 2000	First-Year											Senior										
	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Level of Academic Challenge	39.5	44.8	46.1	47.3	48.5	49.7	50.9	52.3	54.2	56.3	63.0	45.1	48.4	49.4	50.2	51.1	52.2	53.3	54.1	56.0	58.7	66.3
Active and Collaborative Learning	27.2	35.4	36.7	37.9	39.4	40.7	41.9	43.3	45.0	47.2	52.0	38.2	43.8	46.1	47.2	48.4	49.7	50.7	52.0	53.3	55.4	63.0
Student Interactions With Faculty	21.4	25.3	27.1	28.5	29.6	31.1	32.0	33.3	35.2	37.6	45.1	23.1	32.4	34.0	35.6	37.4	39.4	40.6	42.7	44.9	48.5	59.4
Enriching Educational Experiences	31.8	40.4	43.0	44.8	47.0	48.7	50.9	52.9	55.4	59.5	74.4	28.8	35.9	38.4	39.7	41.2	43.6	45.2	47.1	50.0	52.8	67.4
Supportive Campus Environment	45.2	52.0	54.6	56.5	58.2	59.7	61.2	63.1	64.8	67.1	77.4	40.5	48.1	51.2	52.9	54.2	55.9	58.0	60.0	62.5	64.7	73.0
<b>Doctoral-Extensive</b>	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Level of Academic Challenge	41.5	44.9	46.1	46.5	47.4	48.3	48.7	50.4	52.6	53.7	55.7	46.5	48.5	48.8	49.3	50.1	50.8	51.2	52.2	53.6	54.3	55.8
Active and Collaborative Learning	33.5	34.1	36.0	36.4	36.7	37.4	38.1	39.0	40.4	41.5	42.9	38.6	42.7	43.8	44.2	45.3	46.2	47.0	48.2	48.7	50.6	53.8
Student Interactions With Faculty	21.4	23.4	25.1	26.2	26.9	27.4	28.1	28.6	29.4	31.4	34.2	28.0	31.9	32.8	33.6	33.9	34.9	36.5	37.2	39.3	40.4	41.2
Enriching Educational Experiences	41.6	43.3	46.4	47.1	48.5	50.1	51.0	51.8	53.9	56.6	63.9	34.9	37.8	39.5	40.9	42.6	43.8	44.3	45.4	47.4	50.6	54.0
Supportive Campus Environment	45.2	51.0	51.9	52.7	54.6	55.3	56.5	57.7	58.5	60.4	70.6	40.5	46.3	47.6	48.9	50.3	51.0	51.4	52.7	53.7	55.6	62.6
<b>Doctoral-Intensive</b>	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Level of Academic Challenge	39.5	42.4	43.8	45.3	46.1	48.7	50.5	51.7	52.2	53.8	55.4	45.1	46.1	48.1	48.6	49.4	49.8	50.2	51.7	53.8	56.0	57.4
Active and Collaborative Learning	30.9	33.2	35.0	36.0	36.8	37.7	38.5	39.9	44.9	45.5	46.8	38.8	40.4	42.5	44.1	44.9	46.7	48.0	48.6	52.1	54.3	55.3
Student Interactions With Faculty	23.4	23.6	24.1	24.7	25.5	26.7	29.0	29.9	30.1	31.3	37.7	27.4	28.4	32.3	33.6	35.0	35.5	35.8	38.5	40.6	42.7	43.3
Enriching Educational Experiences	32.7	37.3	39.3	41.5	43.5	46.4	47.9	49.6	53.2	58.1	60.0	32.5	33.9	34.8	36.6	38.7	39.5	40.7	42.6	46.7	52.7	56.6
Supportive Campus Environment	47.5	47.9	50.2	52.5	54.3	55.5	56.2	56.6	58.1	61.8	62.2	44.8	45.2	48.2	51.1	52.0	52.8	53.1	54.1	55.2	57.2	61.1
<b>Master's</b>	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Level of Academic Challenge	40.9	44.5	45.8	46.8	47.6	48.4	49.3	50.4	52.0	53.8	58.5	45.1	48.1	49.3	49.8	50.7	51.5	52.5	53.5	54.4	56.8	61.7
Active and Collaborative Learning	30.4	35.0	36.4	37.6	39.5	40.7	41.7	43.0	44.0	46.1	51.6	39.7	45.5	46.8	47.7	49.0	49.8	50.7	52.0	53.1	55.5	59.1
Student Interactions With Faculty	21.4	25.4	27.2	28.9	29.6	31.1	32.0	32.8	34.1	36.6	42.6	23.1	31.5	34.8	35.9	37.3	38.6	39.6	41.2	42.8	45.0	49.3
Enriching Educational Experiences	31.8	39.8	41.3	43.0	43.7	45.6	47.6	49.9	51.8	53.4	64.8	33.2	35.7	37.5	38.9	39.7	40.3	42.3	44.6	45.9	49.8	53.9
Supportive Campus Environment	46.9	52.2	54.5	56.7	58.1	59.4	60.4	61.9	63.2	66.4	75.9	42.3	49.4	52.0	53.3	54.1	55.7	57.1	59.8	61.9	63.5	73.0
<b>Liberal Arts</b>	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Level of Academic Challenge	48.3	50.1	51.4	53.4	54.6	55.2	56.2	57.4	58.4	60.1	63.0	45.2	52.3	53.4	55.9	56.8	57.9	59.0	59.9	61.0	62.6	66.3
Active and Collaborative Learning	36.4	38.5	41.1	42.5	43.4	44.3	45.8	47.0	48.0	50.0	51.9	44.4	47.8	49.9	50.7	51.2	52.1	52.8	54.2	56.3	57.3	63.0
Student Interactions With Faculty	26.9	30.1	31.6	33.0	34.2	35.7	36.7	37.6	39.0	40.9	45.1	34.9	40.7	43.0	45.1	46.6	47.3	49.2	51.0	52.6	53.8	59.4
Enriching Educational Experiences	40.3	49.1	52.8	54.0	55.8	57.6	59.5	61.0	63.1	65.0	74.4	42.9	45.3	46.6	48.3	49.8	51.6	53.1	55.4	56.6	60.3	67.4
Supportive Campus Environment	48.3	58.8	60.6	62.0	64.3	64.6	64.9	66.1	66.8	71.2	74.2	52.8	55.8	57.2	58.1	59.3	60.6	62.5	63.3	64.9	66.2	68.5
<b>General Colleges</b>	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Level of Academic Challenge	42.6	44.1	46.7	48.6	49.5	50.3	51.2	51.6	52.8	54.7	57.7	47.4	48.9	49.8	51.0	52.0	52.9	53.5	53.9	54.8	57.4	60.4
Active and Collaborative Learning	27.2	37.1	38.4	39.3	40.8	41.8	42.5	44.2	45.5	48.0	49.2	40.6	43.8	46.5	47.9	48.6	50.2	51.8	52.6	53.7	55.6	59.2
Student Interactions With Faculty	26.3	28.2	29.8	31.0	31.8	32.5	33.1	35.2	36.4	39.6	42.8	27.8	32.8	34.5	38.7	39.8	41.5	42.4	43.2	44.8	46.3	56.7
Enriching Educational Experiences	34.1	40.6	43.5	44.4	47.6	48.2	49.2	50.5	53.5	56.1	59.7	28.8	33.8	37.8	39.0	41.1	43.7	45.8	47.4	49.5	52.0	58.3
Supportive Campus Environment	51.2	57.5	59.5	60.9	62.0	63.3	64.8	65.6	67.2	72.0	77.4	47.7	52.7	54.9	56.6	58.0	60.1	60.9	62.9	65.1	69.2	72.3

# Institutional Engagement Index

## George Mason University

The “Institutional Engagement Index” is a set of adjusted scores that represent the degree to which your students do more or less than expected in terms of engaging in the five areas of effective educational practice described in the *NSSE 2000 Report*. These areas are (a) level of academic challenge, (b) active and collaborative learning, (c) student interactions with faculty members, (d) enriching educational experiences, and (e) supportive campus environment.

The Institutional Engagement Index is made up of three sets of scores. The first score (Actual) is your institution’s benchmark for first-year and senior students which corresponds to the score in your Institutional Benchmark report. The second score (Predicted) represents what your students **could be expected to do** across this range of important activities, given their background characteristics and selected institutional information.<sup>1</sup> The third score (Residual) is the difference between the Actual and Predicted scores.

Benchmark	Actual	Predicted	Residual
<b>First-Year</b>			
Level of Academic Challenge	49.7	50.1	-0.4
Active and Collaborative Learning	40.2	38.1	2.1
Student Interactions with Faculty Members	29.2	28.4	0.8
Enriching Educational Experiences	49.2	49.4	-0.2
Supportive Campus Environment	56.0	55.6	0.4
<b>Senior</b>			
Level of Academic Challenge	51.6	51.1	0.5
Active and Collaborative Learning	46.8	45.3	1.5
Student Interactions with Faculty Members	32.6	34.0	-1.4
Enriching Educational Experiences	41.1	39.2	1.9
Supportive Campus Environment	52.9	50.7	2.2

The residual score can be thought of as an estimate of educational effectiveness. That is, positive scores indicate that students are more engaged in the respective educational practice (and likely benefiting more) than might be expected. This better-than-expected level of performance suggests that students are engaging more frequently in the kinds of activities that contribute to their learning and personal development. A negative score may indicate that students are doing less than expected in these important areas of effective educational practice.<sup>2</sup>

**NOTES:**

<sup>1</sup>The following student and institutional characteristics (when available) were used in an ordinary least squares regression model to produce the predicted benchmark scores. Unless noted otherwise, institutional and student characteristics were obtained from Fall 1997 IPEDS data, the most complete database available: (a) public/private, (b) admissions selectivity from *Barron’s* 1999, (c) undergraduate enrollment, (d) urbanicity, (e) percentage full-time and part-time, (f) sex, (g) racial/ethnic composition, (h) educational and general expenses per student from 1995-96 IPEDS, (i) endowment or assets (land, buildings, and equipment) per student from 1995-96 IPEDS, (j) student-reported major field, (k) student-reported age, (l) percentage of students who completed the survey via the web.

<sup>2</sup>The institutional engagement index is exploratory in nature. There are other student and institutional characteristics that are not included that could affect an institution’s residual score. In addition, other statistical approaches, such as hierarchical linear modeling, are being explored to further analyze institutions’ actual versus predicted benchmark scores.