

Examination of 2001-2002 Changes from National Survey of Student Engagement Benchmark Report Findings for First-Year Students at WPI

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This brief report compares WPI first-year student responses in years 2001 and 2002 for all five NSSE Benchmarks. The major observations are as follows:

- In one form or another, WPI showed improvements in all five areas of educational practice for first-year students between 2001 and 2002.
- Out of all five areas of educational practice, the area of **Student Interactions with Faculty Members** showed the greatest increase in benchmark score in terms of percentages between 2001 and 2002. In 2001, out of all five areas of educational practice, it received the lowest benchmark score, but in 2002 it received the second lowest.
- While the area of **Student Interactions with Faculty Members** received the second lowest benchmark score within the five areas of educational practice at WPI, this was the highest benchmark score received by any Doc-Intensive institution in 2002.
- When ranking WPI's raw benchmark scores for all five areas of educational practice, **Active and Collaborative Learning** ranked second to lowest in 2001 and lowest in 2002.
- When ranking WPI's raw benchmark scores for all five areas of educational practice, **Level of Academic Challenge** ranked in the middle for both years.
- Out of all five areas of educational practice, the area of **Supportive Campus Environment** showed the largest increase in raw benchmark score from 2001 to 2002. When ranking WPI's raw benchmark scores for all five areas of educational practice, the area of **Supportive Campus Environment** ranked second for both 2001 and 2002.
- While **Enriching Educational Experiences** showed the least amount of improvement from 2001 to 2002, it received the highest benchmark score out of all five areas of educational practice in both years.

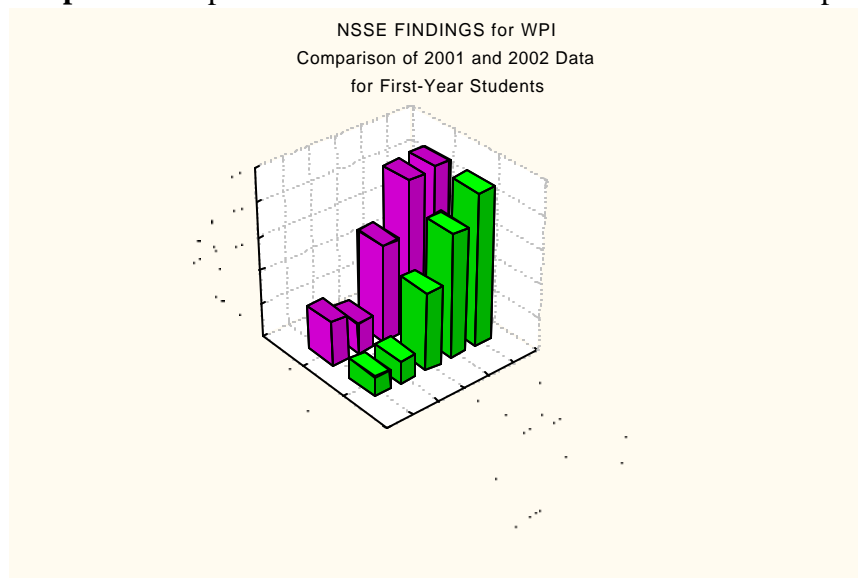
Introduction

The purpose of this report is to compare the responses of Worcester Polytechnic Institute first-year students on the 2001 and 2002 Institutional Benchmark Reports, as conducted by the National Survey of Student Engagement (NSSE). Because raw data were not available, it was not possible to test for the statistical significance of differences seen between 2001 and 2002.

Change within WPI

As seen in Graph 1, between the 2001 and 2002 NSSE Benchmark Reports, WPI improved in all five NSSE National Benchmarks of Educational Practice (areas of educational practice).

Graph 1. Comparison of 2001 and 2002 NSSE Benchmark Report findings



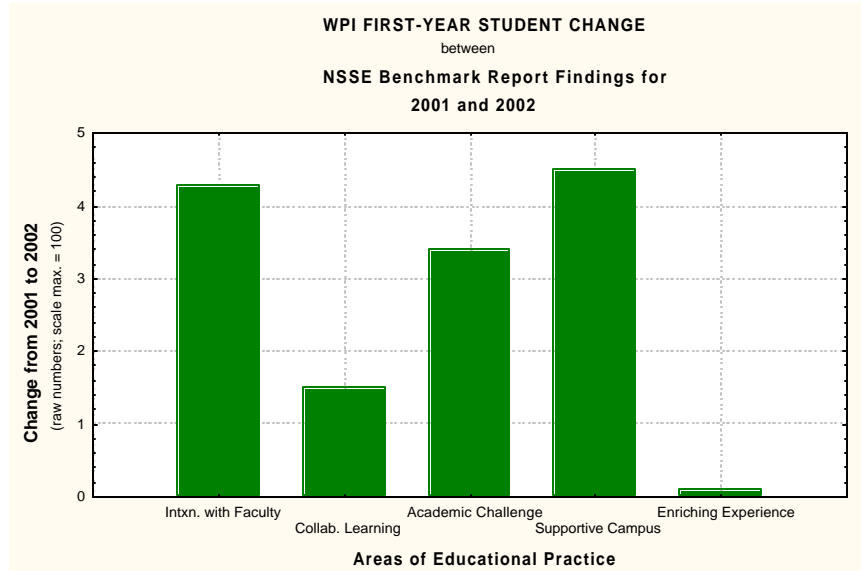
The magnitude of the improvements differs, though, depending on whether what is examined is improvement in raw benchmark scores from 2001 to 2002 or percent improvement between 2001 and 2002 for each area of educational practice.

In terms of raw benchmark scores, the following list of areas of educational practice is arranged in order from greatest to least improved:

1. Supportive Campus Environment
2. Student Interactions with Faculty Members
3. Level of Academic Challenge
4. Active and Collaborative Learning
5. Enriching Educational Experiences.

Graph 2 depicts the improvements from 2001 to 2002 in raw benchmark scores for each area. Numeric values of these improvements, as well as raw benchmark scores for each year, may be found in the Appendix.

Graph 2. Improvements in raw benchmark scores between 2001 and 2002

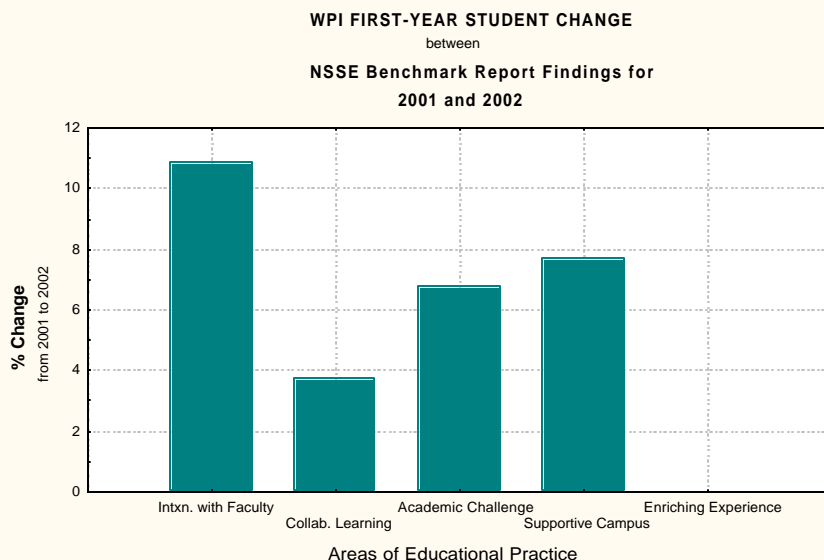


In terms of percent change between 2001 and 2002, the following list of areas of educational practice is arranged in order from greatest to least improved:

1. Student Interactions with Faculty Members
2. Supportive Campus Environment
3. Level of Academic Challenge
4. Active and Collaborative Learning
5. Enriching Educational Experiences.

Graph 3 depicts the percent change between 2001 to 2002 for each area. Numeric values of these improvements, as well as raw benchmark scores for each year, may be found in the Appendix.

Graph 3. Percent change in benchmark scores between 2001 and 2002



WPI changes in group contexts

One useful way to examine changes at WPI is to view how WPI has changed relative to other groups. NSSE provides information that allows WPI to view its performance in terms of percentile scores both for the nation and for its Carnegie Classification group of Doc-Intensive Programs. A percentile score indicates the percentage of observations in an entire distribution with similar or smaller values than an observation possessing that particular percentile score. For example, if WPI has a percentile score of 50% in the area of Level of Academic Challenge, it means that WPI scored as well as or better than 50% of the institutions in the same comparison group.

Table 1 shows WPI's percentile scores in the five areas of educational practice for 2001 and 2002 in terms of the nation as a whole. It reveals that while WPI's standing for first-year students relative to the nation for the area of Enriching Educational Experiences remained the same from 2001 to 2002, for all other areas of educational practice it improved.

Table 1. 2001 and 2002 national percentile scores for first-year WPI students

<u>Area of Educational Practice</u>	<u>National Benchmark Percentile Scores</u>		<u>Direction of Change</u>
	<u>2001</u>	<u>2002</u>	
Student Interactions with Faculty Members	80%	90%	m
Active and Collaborative Learning	40%	50%	m
Level of Academic Challenge	20%	50%	m
Supportive Campus Environment	30%	60%	m
Enriching Educational Experiences	80%	80%	--

Table 2 shows WPI's percentile scores in the five areas of educational practice for 2001 and 2002 in terms of Doc-Intensive institutions. It reveals that WPI's standing for first-year students relative to Doc-Intensive institutions improved for all five areas of educational practice. Additionally, the percentile score of 100% that WPI had for Student Interactions

with Faculty Members in 2002 indicates that *out of all Doc-Intensive institutions in 2002, WPI had the best performance in the area of Student Interactions with Faculty Members.*

Table 2. 2001 and 2002 Doc-Intensive percentile scores for first-year WPI students

<u>Area of Educational Practice</u>	Doc-Intensive Benchmark Percentile Scores		<u>Direction of Change</u>
	<u>2001</u>	<u>2002</u>	
Student Interactions with Faculty Members	90%	100%	m
Active and Collaborative Learning	60%	70%	m
Level of Academic Challenge	30%	60%	m
Supportive Campus Environment	50%	90%	m
Enriching Educational Experiences	80%	90%	m

Comments

- In one form or another, WPI showed improvements in all five areas of educational practice for first-year students between 2001 and 2002.
- Out of all five areas of educational practice, the area of **Student Interactions with Faculty Members** showed the greatest increase in benchmark score in terms of percentages between 2001 and 2002. In 2001, out of all five areas of educational practice, it received the lowest benchmark score, but in 2002 it received the second lowest.
- While the area of **Student Interactions with Faculty Members** received the second lowest benchmark score within the five areas of educational practice at WPI, this was the highest benchmark score received by any Doc-Intensive institution in 2002.
- When ranking WPI's raw benchmark scores for all five areas of educational practice, **Active and Collaborative Learning** ranked second to lowest in 2001 and lowest in 2002.
- When ranking WPI's raw benchmark scores for all five areas of educational practice, **Level of Academic Challenge** ranked in the middle for both years.
- Out of all five areas of educational practice, the area of **Supportive Campus Environment** showed the largest increase in raw benchmark score from 2001 to 2002. When ranking WPI's raw benchmark scores for all five areas of educational practice, the area of **Supportive Campus Environment** ranked second for both 2001 and 2002.
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