# National Survey of Student Engagement: An Inter and Intra-Institutional Analysis (2001, 2004, and 2005)

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# CONTENTS

List of Tables	3
Executive Summary	4
Introduction	6
Overview of the Exhibits	6
National Benchmarks of Effective Educational Practice	7
Performance Improvements and Declines Across UMBC's Benchmarks	7
Benchmark Mean Comparisons: UMBC vs. Institutional Peers (2005)	7
Benchmark Items Highlights: UMBC vs. Peer Institutions	8
Highlights: Student Engagement at UMBC	12
Time on Task	12
Educational & Personal Development	13
Technical Appendix	14
References	19

# List of Tables

- Table 1. UMBC Benchmark Mean Scores for All Years of NSSE Participation
- Table 2. 2005 Benchmark Mean Comparison Scores: UMBC vs. Institutional Peers
- Table 3. UMBC Unweighted Benchmark Mean Scores: Comparisons between Demographic Groups (2001, 2004, 2005)
- Table 4. Glossary of Benchmark Item Labels (used for Tables 5-8)
- Table 5. Mean Score Comparisons on Individual Benchmark Items: UMBC First-Year Students Compared to NSSEparticipating DREU Institutions (NSSE 2001, 2004, 2005)
- Table 6. Mean Score Comparisons on Individual Benchmark Items: UMBC Seniors Compared to NSSEparticipating DREU Institutions (NSSE 2001, 2004, 2005)
- Table 7. Mean Score Comparisons on Individual Benchmark Items: UMBC First-Year Students vs. Public Doctoral Research-Extensive Sci/Tech Peers
- Table 8. Mean Score Comparisons on Individual Benchmark Items: UMBC Seniors vs. Public Doctoral Research-Extensive Sci/Tech Peers
- Table 9. Trends in Overall Satisfaction of UMBC First-year and Senior-level Students
- Table 10. Trends in Time Usage of UMBC First-Year and Senior-level Students
- Table 11. Trends in Education and Personal Growth of UMBC First-year and Senior-level Students
- Table 12. Characteristics of NSSE 2001, 2004, and 2005 Respondents, Non-respondents and Population
- Table 13. Comparison of UMBC and NSSE-participating Doctoral Research-Extensive Universities (2001, 2004, 2005)

## **EXECUTIVE SUMMARY**

The National Survey of Student Engagement (NSSE) is a survey of first-year and senior-level undergraduate students<sup>1</sup> at both public and private four-year institutions in which UMBC participated in 2000, 2001, 2004, and 2005.<sup>2</sup> The NSSE gauges the extent to which colleges are providing educational experiences associated with important learning and personal development outcomes for their students. A cross-section of institutions from the Carnegie Classification of four-year institutions have participated in NSSE each year allowing institutions to benchmark their results with other institutions in their peer group, to create special comparison groups, and to make comparisons to all NSSE-participating institutions (Kuh, Hayek, Carini, Ouimet, Gonyea, & Kennedy, 2001; NSSE 2005 Institutional Report).

#### **Objectives**

There are four objectives associated with this report:

- Present the most current trends in effective educational practices and student engagement at UMBC.
- Highlight year-to-year performance improvements and declines across the benchmarks of effective educational practice using 2001, 2004, and 2005 data.
- Evaluate UMBC's performance relative to its institutional peers—all NSSE-participating Doctoral/Research-Extensive universities (DREU) and those DREU public institutions that award a substantial proportion (> 25%) of their baccalaureate degrees to STEM majors.
- Understand important sub-group differences within the sample of first-year and senior-level students on various aspects of academic and social engagement.

#### National Benchmarks of Effective Educational Practice

- NSSE developed five benchmarks of "Effective Educational Practice" using groups of items from the survey. The benchmarks are: Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment. (Please see the Technical Appendix for a description of each benchmark).
- There were performance improvements and declines over time when examining UMBC's 2001, 2004, and 2005 weighted benchmarks (Table 1).<sup>3</sup>
  - UMBC first-year students' benchmark scores remained consistent over time with two exceptions: a significant increase from 2004 to 2005 in the Enriching Education Experiences benchmark, and a significant decrease from 2004 to 2005 in the Supportive Campus Environment benchmark.
  - UMBC seniors' benchmark scores significantly improved in all areas except for Enriching Education Experiences where it remained consistent across time.
- Although significant improvements have been realized over time for UMBC, its 2005 benchmark scores still lagged behind its peers in three areas: Active and Collaborative Learning, Student-Faculty Interaction, and Enriching

<sup>&</sup>lt;sup>1</sup> Eligible respondents must be enrolled during the fall and spring of the survey year given that questions are framed within the context of an academic year (fall 2004 and spring 2005). "First-year" students are categorized as freshmen based on cumulative credits excluding advanced placement credits. In the 2005 NSSE 99% of "first-year" students matriculated in fall 2004. "Senior-level" students are those who are within 12 – 24 credits of graduation (<u>http://www.indiana.edu/~nsse/index.htm</u>, accessed November 11, 2005).

 $<sup>^{2}</sup>$  UMBC also participated in the 2000 NSSE. Due to the significant changes that were made to the NSSE subsequent to the 2000 administration, we speak to only the 2001, 2004, and 2005 data.

<sup>&</sup>lt;sup>3</sup> NSSE provides sample weights by gender and enrollment status (full-time/part-time) so that benchmark scores can be adjusted to reflect gender and enrollment patterns in the UMBC population.

Education Experiences (Table 2). Specific areas for improvement within each of these domains are highlighted in the section below.

# Benchmark Item Highlights: UMBC vs. Peer Institutions

- In this section, we highlight substantively significant findings from comparisons between UMBC and (1) NSSEparticipating Doc/Res-Ext universities, and (2) NSSE-participating public Doc/Rest-Ext Sci/Tech universities on items comprising each benchmark of Effective Educational Practices to understand specific areas of accomplishment and to understand areas for improvement at UMBC (Tables 5 – 8).<sup>4</sup>
- There is a consistent institutional strength emphasized by faculty and administration to UMBC students—the importance of devoting time and energy to academic preparation and coursework. This is supported by the fact that UMBC students perceived greater institutional emphasis on academics than their peers. UMBC first-year students were significantly more likely than their Doc/Res-Ext peers to perceive greater support to succeed academically as well. This is consistent across all three years.
- While academics are emphasized at UMBC, there is room for improvement in regards to practicing written and oral communication skills. The new GEP writing requirements (scheduled for implementation in fall 2007) should address this issue.
- The level of interaction between UMBC students and faculty is comparable to NSSE-participating DREU and Sci/Tech peer institutions.
- One of UMBC's organizational strengths is its commitment to diversity. UMBC students were significantly more likely than their DREU peers to perceive that the institution encouraged contact among groups of diverse students. UMBC students were also significantly more likely than their contemporaries at peer schools to engage with students who were different from themselves.
- There are two areas for improvement in regards to enriching educational experiences that supplement coursework and enhance student life; plausibly, the Effectiveness and Efficiency Initiative will facilitate this.
  - Engage students in community service and volunteer experiences at rates comparable to our institutional peers.
  - UMBC administration and faculty should strive to engage every senior in a culminating experience that is major-related to allow the student to get hands on experience (i.e., internship), or conduct independent research to prepare him/her for graduate study or to go on the job market.

# Time on Task

• UMBC commuters, part-time students, and first generation college students were more likely than their counterparts to be managing work, family, and school.

#### Educational and Personal Development

• Important gains were recognized in the percentage of students who credited UMBC "quite a bit" or "very much" with "using computing and information technology." This is noteworthy given USM policy regarding technical fluency standards for graduates, and subsequent initiatives that have been implemented at UMBC to achieve these standards.

<sup>&</sup>lt;sup>4</sup> All reported significant relationships from the inter-institutional analyses were statistically significant at ( $p \le .01$ ). While there may be statistically significant differences between groups, we placed greater emphasis on the "substantively" or "practically" significant differences between groups. This is done by calculating effect sizes. Effect sizes are calculated by subtracting the comparison group mean (i.e., Sci/Tech or Doc/Res-Ext comparison group) from the school mean (UMBC) and dividing this result by the standard deviation of the comparison group (NSSE Institutional Reports, 2001 – 2005). We use effect sizes of .3 denote a small difference, .5 a moderate difference, and .8 a large difference.

#### 2005 NATIONAL SURVEY OF STUDENT ENGAGEMENT: UMBC SUMMARY OF RESULTS

#### **Introduction**

The National Survey of Student Engagement (NSSE) is a survey of first-year and senior-level undergraduate students at both public and private four-year institutions in which UMBC participated in 2000, 2001, 2004, and 2005. NSSE began in 1998 with support from the Pew Charitable Trusts, was piloted in 1999, and nationally launched for annual administration in spring 2000. The project is directed by Dr. George Kuh, Chancellor's Professor of Education at Indiana University's Center for Post-Secondary Research & Planning. The NSSE gauges the extent to which colleges are providing undergraduate educational experiences associated with important learning and personal development outcomes. A cross-section of institutions from the Carnegie Classification of four-year institutions has participated in NSSE each year allowing institutions to benchmark their results with other institutions in their peer group as well as with all NSSE-participating institutions (Kuh, Hayek, Carini, Ouimet, Gonyea, & Kennedy, 2001).

#### Overview of the Exhibits

The accompanying exhibits are an administrator-oriented summary. The report is organized according to the five benchmarks of effective education practice: Level of Academic Challenge, Active and Collaborative Learning, Student-Faculty Interaction, Enriching Educational Experiences, and Supportive Campus Environment.<sup>5</sup> There are four objectives to this analysis:

- Present the most current trends in effective educational practices and student engagement at UMBC.
- Highlight year-to-year performance improvements and declines across the benchmarks of effective educational practice using 2001, 2004, and 2005 data.
- Evaluate UMBC's performance relative to its institutional peers—all NSSE-participating DREU and a sub-set of those publicly-funded DREU that also awarded a substantial proportion (> 25%) of its baccalaureate degrees to STEM majors. UMBC has higher concentrations of science, engineering, and technology students than many other DREU (46% of UMBC's bachelor's degrees were in these areas in FY03, FY04).<sup>6, 7</sup>
- Understand important sub-group differences within the sample of first-year and senior-level students on various aspects of academic and social engagement.

Ultimately, this overview is one boundary spanning technique that administration can use to investigate its institutional peers' effective educational practices in order to understand UMBC's strengths and to make organizational improvements.

<sup>&</sup>lt;sup>5</sup> See the "Technical Appendix" for a complete discussion of the benchmarks.

<sup>&</sup>lt;sup>6</sup> The CIP codes that constitute "Sci/Tech degrees" are Agricultural Sciences (02), Conservation & Renewable Natural Resources (03), Computer & Information Science (11), Engineering (14), Engineering-related Technologies (15), Biological & Life Sciences (26), Mathematics (27), Physical Sciences (40), and Science Technologies (41). Data Source: IPEDS.

<sup>&</sup>lt;sup>7</sup> This produced a peer group of 18 public Doc/Res-Ext institutions that participated in NSSE 2005. The high Sci/Tech peer group included: Clemson University, Colorado State University, Georgia Institute of Technology, Iowa State University, Mississippi State University, Oklahoma State University, Oregon State University, Rutgers University-New Brunswick, Texas A&M University, The University of Texas at Austin, University of Arkansas, University of California-Davis, University of Idaho, University of Illinois at Chicago, University of Maryland-College Park, University of Nevada-Reno, University of Vermont, and University of Washington-Seattle Campus. Data Source: IPEDS, FY 2003.

### National Benchmarks of Effective Educational Practice

NSSE developed five benchmarks of "Effective Educational Practice," including:

• Level of Academic Challenge

- Enriching Educational Experiences
- Active and Collaborative Learning Supportive Campus Environment
- Student-Faculty Interaction

•

Each benchmark area comprises groups of items from the survey. (Please see the Technical Appendix for a description of each benchmark). In this section, we review performance improvements and declines across UMBC's benchmarks using 2001, 2004, and 2005 data (Table 1) to then report significant differences between UMBC and its institutional peers on the 2005 Benchmarks of Effective Educational Practices (Table 2). An additional table (Table 3) comparing demographic groups' (unweighted) benchmark scores across time is provided for a more detailed examination of the benchmark means.

Performance Improvements and Declines Across UMBC's Benchmarks (2001, 2004, and 2005)

- UMBC first-year students' (FY) weighted benchmark scores remained relatively constant over the three-year period with two exceptions (Table 1).
  - o Enriching Education Experiences benchmark scores significantly increased from 2004 to 2005 (28.6 to 30.7).
  - Supportive Campus Environment benchmark scores *declined* over the three-year period; 2005 is significantly lower than 2004 (55.6 vs. 58.6).
- UMBC seniors' (SR) weighted benchmark scores significantly improved in four of the five benchmarks and remained constant in one area (Enriching Educational Experiences) over time (Table 1).
  - Level of Academic Challenge benchmark scores increased over the three-year period, with a *significant increase* realized from 2001 to 2005 (51.5 to 55.8).
  - Active and Collaborative Learning 2005 benchmark score (45.1) was higher than both 2001 (39.3) and 2004 (42.6) scores with a significant increase realized from 2001 to 2005.
  - Student-Faculty Interaction 2004 (39.9) and 2005 (42.5) benchmark scores rose *significantly higher* over the 2001 score (34.3).
  - Supportive Campus Environment 2004 and 2005 (both 52.2) benchmark scores *significantly increased* over 2001 (44.9).

#### Benchmark Mean Comparisons: UMBC vs. Institutional Peers (2005)

- While significant improvements were realized over time for UMBC, its 2005 weighted benchmark scores trailed peers on three fronts: Active and Collaborative Learning, Student-Faculty Interaction, and Enriching Education Experiences (Table 2).
  - o Active and Collaborative Learning
    - While UMBC FY and SR Active and Collaborative Learning benchmark scores were significantly lower than both institutional peer groups, the magnitude of this difference was minimal (-.14 and -.17, respectively).
    - Analysis of benchmark items revealed that there were two items (of six) where UMBC first-year and/or senior-level students fell behind their peers, including frequency of making presentations and

collaborating with peers outside of class on assignments (see "Benchmark Item Highlights: UMBC vs. Peer Institutions" for more details).

- o Student-Faculty Interaction
  - While UMBC FY and SR benchmark scores were on par with its 2005 Sci/Tech peers, their scores were significantly lower than their Doc/Res-Ext peers ( $p \le .05$ ). Notably, the magnitude of this relationship is nominal (-.11 and -.13, respectively).
- Enriching Educational Experiences
  - UMBC FY scored significantly *higher* than both institutional peer groups on this benchmark. UMBC FY were significantly more likely than their institutional peers to state that they more frequently interact with students of different racial, ethnic, and religious backgrounds from their own, as well as interacting with students who have differing political opinions and personal values from their own.
  - UMBC SR scored significantly *lower* than both institutional peer groups on this benchmark. UMBC SR were significantly less likely than their institutional peers to have engaged in a variety of experiences including volunteer work, professional practice experiences, and culminating senior experiences.

#### Benchmark Item Highlights: UMBC vs. Peer Institutions<sup>8,9</sup>

Tables 5 and 6 present a summary of benchmark results comparing UMBC first-year and senior-level students to two groups: (1) NSSE-participating Doctoral/Research-Extensive Universities and (2) all NSSE-participating institutions across three years (2001, 2004, and 2005). Here we limit discussion to comparisons between UMBC and NSSE-participating Doctoral/Research-Extensive Universities, as they most resemble UMBC. Where appropriate we also integrate findings from the comparison of UMBC to its public Doctoral/Research-Extensive Sci/Tech peers (Tables 7 and 8). Ultimately, there is remarkable consistency in responses across time for UMBC, as well as when comparing UMBC to its institutional peer groups.

#### Level of Academic Challenge

- There is a consistent institutional strength emphasized by faculty and administration to UMBC students—the importance of devoting their time and energy to academic preparation and coursework.
  - UMBC first-year and senior-level students were significantly more likely than their peers at DREU to *perceive* greater institutional emphasis on "spending a significant amount of time studying and on academic work."<sup>10</sup> This pattern is consistent across the three-year period, and when comparing UMBC first-year and senior-level students to their 2005 Sci/Tech peers.
  - On average, UMBC first-year students and seniors reported spending between 11 15 to 16 20 hours each week preparing for class. Time devoted to studying has remained constant across survey years and, generally, does not diverge from Doc/Res-Ext or Sci/Tech peer estimates.

<sup>&</sup>lt;sup>8</sup> Benchmark item comparisons are unweighted. For tables 5 - 8 see table 4 for a glossary of benchmark item labels.

<sup>&</sup>lt;sup>9</sup> All reported significant relationships from the inter-institutional analyses were statistically significant at ( $p \le .01$ ; 2-tailed). While there may be statistically significant differences between groups, we placed greater emphasis on the "substantively" or "practically" significant differences between groups. This is done by calculating effect sizes. Effect sizes are calculated by subtracting the comparison group mean (i.e., Sci/Tech or Doc/Res-Ext comparison group) from the school mean (UMBC) and dividing this result by the standard deviation of the comparison group (NSSE Institutional Reports, 2001 – 2005). We use effect sizes of .3 denote a small difference, .5 a moderate difference, and .8 a large difference.

<sup>&</sup>lt;sup>10</sup> In 2005, 87% of UMBC first-year students and 89% of seniors responded that UMBC emphasized spending significant amounts of time studying and on academic work "quite a bit" or "very much," compared to 78% (79%) and 79% (78%) of Doc/Res-Ext (Sci/Tech) first-year students and seniors, respectively.

- UMBC students (FY and SR) also scored comparable to their contemporaries at DREU and Sci/Tech peer institutions on items regarding the extent to which coursework emphasized higher order thinking skills (Bloom's Taxonomy): analyzing, synthesizing, making judgments, and applying theories and concepts.
- Consistently across both peer comparisons (Doc/Res-Ext and Sci/Tech) UMBC first-year students were significantly more likely to report writing *fewer* papers that average 5 19 pages or < 5 pages. This pattern held across all three survey years when comparing UMBC to its Doc/Res-Ext peers. The practical significance of these differences ranged from small to moderate. (Generally, Arts & Humanities and Social Science majors were writing more papers than those in the STEM areas).
  - Examining related non-benchmark items,<sup>11</sup> UMBC first-year students were also significantly less likely than <u>both</u> peer groups to be: (1) preparing two or more drafts of a paper or assignment before turning it in and (2) working on a paper or project that integrated ideas or information from various sources across all survey years.
- Across all three years, UMBC seniors were significantly more likely than Doc/Res-Ext and Sci/Tech peers to be writing *fewer* papers shorter than 5 pages.
- These results present an opportunity for improvement in the extent to which writing is emphasized in coursework, as well as how it is integrated into courses, at UMBC. The new GEP writing requirements (scheduled for implementation in fall 2007) should address this issue.

#### Active and Collaborative Learning

- There were two items (of six) where UMBC first-year and/or senior-level students fell behind their peers. UMBC first-year and senior-level students are not practicing oral communication skills as frequently as their peers at Doc/Res-Ext or Sci/Tech schools.
  - Across all three survey years, UMBC first-year and senior-level students were significantly *less* likely than their peers at DREU to frequently have made class presentations. UMBC students also scored significantly lower on this item than their 2005 Sci/Tech peers.
    - In 2005, 10% of UMBC first-year students responded that they "often" or "very often" made a class presentation compared to 21% (20%) their contemporaries at Doc/Res-Ext (Sci/Tech) institutions.
    - In 2005, 40% of UMBC seniors responded that they "often" or "very often" made a class presentation compared to 52% (49%) of seniors at Doc/Res-Ext (Sci/Tech) institutions.
  - Compared to both Doc/Res-Ext and Sci/Tech peers, UMBC *seniors* were significantly less likely to have worked with classmates *outside* of class to prepare class assignments (Tables 6, 8).
    - This was evident across all three survey years when comparing UMBC seniors to seniors at DREU.
    - Across all survey years, UMBC senior-level STEM majors were significantly more likely than other majors to report more frequent collaboration outside of class.

#### Student-Faculty Interaction

• The level of interaction between first-year and senior-level students and faculty is on par with NSSE-participating Doc/Res-Ext and Sci/Tech peer institutions.

<sup>&</sup>lt;sup>11</sup> Non-benchmark items are those items that are included in the survey but are not included in one of the five benchmarks of effective educational practice.

- UMBC first-years students have regular and frequent interaction with faculty as it relates to their academic progress (2005).
  - Thirty-seven percent of UMBC first-year students reported that they "very often" or "often" discussed grades or assignments with their instructors over the past academic year (Sci/Tech FY: 42%; DREU FY: 45%). Almost another 50% across all three groups (UMBC, Sci/Tech and DREU) of first-year students replied that they "sometimes" discussed grades and assignments with their instructors.
  - UMBC first-years students also reported that they received prompt feedback "very often" or "often" (56%) from faculty regarding academic performance (Sci/Tech FY: 54% and DREU FY: 58%).
- Some benchmark items are more relevant to senior-level students, including participation in research with faculty beyond course requirements and the extent to which students are engaging with faculty beyond the classroom, like in campus committees and in student life activities.
  - In the 2005 survey, 15% of UMBC seniors reported working on a research project with a faculty member <u>outside</u> of course or program requirements during their time at UMBC; this is somewhat lower than their contemporaries at DREU and Sci/Tech schools (Sci/Tech SR: 24%; DREU SR: 22%).
  - Forty-three percent (43%) of UMBC seniors reported to have at least "sometimes" worked with faculty on activities outside of coursework such as committees and student life activities (2005) during the current school year; this is somewhat lower than their contemporaries at Sci/Tech schools (50%) and DREU (51%).
  - Senior-level students who initially started out at UMBC were significantly more likely than other seniors to have engaged in research with faculty beyond course requirements and to have worked with faculty in a capacity beyond coursework.

# Enriching Educational Activities

- Items in this benchmark represent two aspects of enriching educational experiences—participating in a variety of activities that supplement academic coursework and enhance student life, and the extent to which students are expanding their personal and social boundaries by engaging with students of different racial, ethnic, and religious backgrounds from their own, as well as interacting with students who have differing political opinions and personal values from their own.
- One of UMBC's organizational strengths is its commitment to diversity. A positive consequence of this cultural diversity is the interactions that take place among students of differing backgrounds and the learning that can result.
  - UMBC first-year and senior-level students' mean scores were significantly higher than *both* peer groups on: "Had serious conversations with students of a different race or ethnicity" and "Campus encouraging contact among students from different economic, social, and racial or ethnic backgrounds." Moreover, this trend holds when comparing UMBC to DREU peers across all three survey years.
  - UMBC first-year students consistently scored significantly higher than their DREU and Sci/Tech peers regarding the extent to which they had conversations with students who were very different from them in terms of religious beliefs, political opinions and personal values.
- Regarding enriching educational experiences that supplement coursework and enhance student life, there are two areas for improvement.
  - Engage students in community service and volunteer experiences at rates comparable to our institutional peers.

- From 2004 to 2005, UMBC first-years reported increased participation in community service or volunteer work (25% to 34%). Still, UMBC first-year students are participating at lower rates than their DREU peers (2004: 25% vs. 35%; 2005: 34% vs. 42%).<sup>12</sup>
  - UMBC first-year students are also participating at lower rates than their 2005 Sci/Tech peers (2005: 34% vs. 40%).
- From 2004 to 2005, UMBC seniors continued to participate in community service or volunteer work at lower rates than their DREU peers (2004: 43% vs. 59%; 2005: 41% vs. 63%).<sup>13</sup>
- UMBC administration and faculty should strive to engage every senior in a culminating experience that is major-related to allow the student to get hands on experience, or conduct independent research to prepare him/her for graduate study, or to go on the job market. Plausibly, the Effectiveness and Efficiency Initiative will provide the structure to facilitate student engagement in these courses that are outside of a conventional classroom experience.
  - Over a two-year period, we consistently found that a significantly lower percentage of UMBC seniors completed a practicum, internship, field experience, co-op experience, or clinical assignment<sup>14</sup> or a culminating senior experience (i.e., comprehensive exam, capstone course, thesis, project, etc.)<sup>15</sup> compared to both peer groups.

#### Supportive Campus Environment

- Consistent with results that UMBC students perceived greater institutional emphasis regarding studying and academics than its peers, UMBC first-year students were significantly more likely than their Doc/Res-Ext peers to perceive greater support to succeed academically. This is consistent across all three years.<sup>16</sup>
- UMBC seniors scored significantly lower than their counterparts at DREU on the quality of their relationships with fellow students across the three-year study period.<sup>17</sup> In 2005, UMBC seniors who matriculated as a new freshman and who resided on campus had significantly higher scores on this item than other seniors.

# **Overall Satisfaction**

• There are three items that assess overall satisfaction within the *National Survey of Student Engagement*: satisfaction with advising, evaluation of the entire educational experience, and satisfaction with selecting UMBC as their undergraduate institution (Table 9).

<sup>&</sup>lt;sup>12</sup> Intention to participate in a community service or volunteer experience was more comparable between UMBC and Doc/Res-Ext first-years (2004: 42% vs. 43%; 2005: 34% vs. 38%).

<sup>&</sup>lt;sup>13</sup> Senior participation rate in community service at Sci/Tech schools (2005) is comparable to Doc/Res-Ext schools (2005).

<sup>&</sup>lt;sup>14</sup> In 2004, 43% of UMBC seniors completed a practicum, internship, field experience, co-op experience, or clinical assignment while 51% of their peers at Doc/Res-Ext schools reported doing so. In 2005, 40% of UMBC seniors completed a practicum, internship, field experience, co-op experience, or clinical assignment while 54% (55%) of their peers at Doc/Res-Ext (Sci/Tech) schools reported doing so. While enrollment status is not consistently related to engaging in a professional practice experience, transfer status has a significant and negative relationship to it.

<sup>&</sup>lt;sup>15</sup>In 2004, 10% of UMBC seniors reported completing a culminating senior experience while 25% of their peers at Doc/Res-Ext schools reported doing so. In 2005, 12% of UMBC seniors reported completing a culminating senior experience while 28% of their peers at Doc/Res-Ext and Sci/Tech schools reported doing so.

<sup>&</sup>lt;sup>16</sup> UMBC first-year students were also significantly more likely than their 2005 Sci/Tech peers to perceive greater support to succeed academically. While UMBC seniors were significantly more likely than both peer groups (2005) to perceive greater support to succeed academically, there was no significant difference in the past (2001, 2004) between UMBC seniors and their Doc/Res-Ext peers on this item.

<sup>&</sup>lt;sup>17</sup> UMBC seniors also scored significantly lower than their counterparts at Sci/Tech peers schools. Generally, the substantive significance of these relationships was small to moderate.

- On a scale of 1 (poor) to 4 (excellent), UMBC first-year students (2.80) and seniors (2.71) evaluated the quality of academic advising they received at UMBC as "fair" or "good" (2005). These ratings are fairly consistent with prior years, and are consistent with their DREU peers across the three survey years.
- When asked to evaluate their entire educational experience at UMBC [1 (poor) to 4 (excellent)], first-year students and seniors have consistently rated it as "good" to "excellent" across all three survey years, with seniors' scores marginally increasing over time [FY: 3.14 (2001), 3.15 (2004), and 3.12 (2005); SR: 2.98 (2001), 3.06 (2004), 3.08 (2005)].
  - Generally, there have been no substantively significant differences between UMBC first-year students and their DREU peers on this measure of satisfaction. On the other hand, UMBC seniors have tended to score significantly (marginally) lower than their DREU peers (nominal to small effect sizes) over the three years.
  - Sub-group analyses of UMBC students show that first-year Asian students scored significantly lower than all other first-years (2.95 vs. 3.16). This is consistent with 2004 results.
- Students are asked to respond to "If you could start all over again, would you go to the same institution you are now attending?" on a scale of 1 (definitely no) to 4 (definitely yes). On average, UMBC first-year students responded "probably yes" over the three-year period (2001: 3.08; 2004: 3.12; 2005: 3.08) while UMBC seniors' responses have straddled ambivalence—"probably no" or "probably yes" (2001: 2.88; 2004: 2.93; 2005: 3.02). Notably, seniors' scores have incrementally increased over time.

#### Highlights: Student Engagement at UMBC

# <u>Time on Task</u>

How do UMBC students spend their time? Have trends in time usage varied over time or have they remained consistent? Table 9 shows the average number of hours per week that UMBC first-year students and seniors spend on various educational and non-educational tasks. When appropriate, substantively significant differences among demographic groups are noted.

- Generally, time devoted to activities has remained consistent over time with one exception: first-year students are spending less time relaxing and socializing. Marginal increases in time devoted to extra-curricular activities, preparing for class, and working on-campus for pay have been noted over the 3-year time period.
- In some instances the *average* time spent in activities is substantially larger than the *median* time devoted, meaning that certain demographic groups may be contributing to inflated mean scores.
  - There are two groups of UMBC first-year students who were more likely than their counterparts to be juggling worker and/or caregiver roles along with their role as student—commuters and first generation college students.
    - Commuters spent significantly more time working off-campus for pay than residents (commuters: 6-15 hours vs. residents: 0-5 hours). They also had significantly greater time commitments to taking care of dependents than residents.
    - First generation college students spent more time working off-campus for pay than second generation college students (FGC: 1 10 hours vs. SGC: 0 5 hours).<sup>18</sup> FGC students also spent significantly less time in co-curricular activities than SGC students (FGC: 0 5 hours vs. SGC: 0 10 hours).

<sup>&</sup>lt;sup>18</sup> A similar pattern merged in the NSSE 2004. While FGC students were more likely to be commuters, the relationship between FGC and dorm status was not significant in 2004 or 2005.

- For UMBC seniors, there were three groups of students who were more likely than their counterparts to be managing work, family, and school.
  - Commuters spent significantly more time working off-campus (11 20 hours vs. 0 5 hours) and caring for dependents (1 10 hours vs. 0 5 hours) compared to residents. Seniors who attended part-time and those who were first generation college students were also significantly more likely than other seniors to be managing work, family, and school.<sup>19</sup>
- For first-year and senior-level students (2005), commuters were significantly less socially engaged in respect to time devoted to co-curricular activities. Empirical evidence demonstrates this is attributed to the other multiple roles commuters are juggling as worker and caregiver.

# Educational and Personal Growth

The NSSE gauges the extent to which colleges are providing educational experiences associated with important learning and personal development outcomes for their undergraduates. Several of the questions align with the Maryland Higher Education Commission and the Middle States Accreditation student learning outcomes assessment guidelines. Table 10 shows the items designed to measure self-reported educational and personal growth, along with the percentages of first-year and senior-level students who responded that they gained "very much" or "quite a bit" in these areas.

- The top two items were the same for both first-year students and seniors over the 3-year period:
  - Thinking critically & analytically
  - Acquiring a broad education
- Over the 3-year period, there have been important gains in the percentage of students who credited UMBC "quite a bit" or "very much" with "using computing and information technology" (FY: 61 69%; seniors: 66 74%). This is noteworthy given USM policy recently drafted regarding technical fluency standards for graduates, and subsequent initiatives that have been implemented at UMBC to achieve these standards.<sup>20</sup>
- Also high (over 60% responding "very much" or "quite a bit") for both groups were:
  - o Learning effectively on your own
  - Analyzing quantitative problems
- For seniors, 60% or greater rated the following items high in terms of educational and personal gain:
  - o Working effectively with others
  - Writing clearly & effectively
  - o Acquiring job or work-related knowledge & skills
  - o Speaking clearly and effectively
- While UMBC 60% and 68% of seniors credited UMBC "quite a bit" or "very much" with being able to effectively and clearly speak and write this <u>is not</u> the case for first-year students (39% and 53%, respectively).
  - This is consistent with the fact that UMBC first-year students were writing significantly fewer papers and less frequently gave class presentations than their peers at DREU and Sci/Tech schools. There is room for improvement regarding these essential skills with which every UMBC graduate should be proficient.

<sup>&</sup>lt;sup>19</sup> Again, a similar pattern was found in the 2004 data for seniors. As well, while FGC students were more likely to be commuters than SCG students, the relationship between FGC and dorm status was not significant for seniors in 2005. However, there was a significant relationship between dorm status and enrollment status for seniors, in that commuters were much more likely than residents to be enrolled part-time.

<sup>&</sup>lt;sup>20</sup> For more information on alumni perceptions regarding UMBC's contribution to their technical fluency see the Alumni 2003 Technical Fluency Report at OIR's Web site <u>http://www.umbc.edu/oir/Reports/technical%20fluency.pdf</u>. You may also request the Alumni 2004 Technical Fluency Report from OIR.

# **Technical Appendix**

#### Data & Measures

The National Survey of Student Engagement survey instrument—*The College Student Report* (Kuh, 1999)—was designed in 1998 by a team led by Peter Ewell of The National Center for Higher Education Management Systems (NCHEMS). The majority of items within the *The College Student Report* were modified with permission from the College Student Experiences Questionnaire (CSEQ) and the Cooperative Institutional Research Program (CIRP).<sup>21</sup> For a complete version of the survey please visit the National Survey of Student Engagement Web site at: <a href="http://nsse.iub.edu/html/survey\_instruments\_2005.cfm">http://nsse.iub.edu/html/survey\_instruments\_2005.cfm</a>.

The National Survey of Student Engagement includes items that address a variety of aspects and a host of characteristics associated with a quality undergraduate education, including:<sup>22</sup>

- Frequency of participation in academic and intellectual experiences
- The degree to which coursework emphasized mental activities (Bloom's Taxonomy)
- Degree to which examinations challenged students to do their best work
- Extent/degree to which reading and writing activities are practiced in coursework
- Number of homework problem sets, and the time it took to complete them
- Frequency of participation in additional collegiate experiences (spiritual, cultural, and physical fitness)
- Enriching educational experiences (have done or plan to participate in community service, internships, etc.)
- Quality of relationships with students, faculty, and staff
- Time usage (hours spent per week on preparing for class, working on/off campus, relaxing, etc.)
- Institutional environment (extent to which the institution emphasizes spending time studying, providing support to succeed academically, support to thrive socially, etc.)
- Educational and personal growth
- Academic advising
- Overall satisfaction

A number of experimental items were added to the 2005 survey, including items to assess and evaluate the first-year experience, enrollments patterns, and academic self-efficacy.

# National Benchmarks of Effective Educational Practice

The NSSE project team developed five clusters, or benchmarks, of "Effective Education Practice," from 41 of the survey items using factor analysis.<sup>23</sup>

For each benchmark, a composite score was created by converting all relevant items to a 0 - 100 point scale. For the eight items with a response category of have "done," "plan to do," "do not plan to do," and "have not decided," students who responded that they had "done" these activities received a value of 100 and all other responses received a value of 0. After all items were converted to a 0 - 100 scale, a student-level scale score was generated by taking the mean of each student's scores on items constituting each benchmark. A scale score was calculated for each student who had responded to at least 60% of all items for a particular benchmark. For each institution, NSSE provides weights to adjust benchmarks to reflect gender and enrollment status (full-time/part-time) in the UMBC population. Prior to 2004, NSSE used the most recent IPEDS data to calculate weights for each institution. In 2004, NSSE began using institutional population data files (used to generate the survey sample) along with IPEDS data to calculate weights

<sup>&</sup>lt;sup>21</sup> See Kuh, Hayek, Carini, Ouimet, Gonyea, and Kennedy (2001) for more details.

<sup>&</sup>lt;sup>22</sup> The survey instrument was designed to ameliorate against the effects of telescoping, which can affect the validity of one's responses, by providing a time frame in which students should consider these questions. Students were asked to reflect upon the current academic year when responding to the questions (Kuh, 2001; Kuh et al., 2001; Ouimet, Bunnage, Carini, Kuh & Kennedy, 2001).

 $<sup>^{23}</sup>$  Kuh (2001) notes that principal components factor analysis using an oblique rotation has been established as an empirical approach to evaluating construct validity, in other words that certain items are related to each other to explain an underlying phenomenon—a construct (Kerlinger, 1973).

(<u>www.iub.edu/~nsse/2004\_annual\_report/html/benchmarks\_const.html</u>, accessed 11/1/2005). In 2005, NSSE used only institutional data files to create the weighting variable. These weighted benchmark composite scores are provided by NSSE in the *Benchmark Recalculation Report* provided to each institution. In Table 1 weighted and unweighted benchmark scores are provided. A series of sub-group analyses was conducted to compare unweighted benchmark means between groups across time (Table 3).

The five national benchmarks of "Effective Educational Practice" are:

# Level of Academic Challenge

- Number of hours spent per week preparing for class (studying, reading, writing, doing homework or lab work, rehearsing, and other activities related to your academic program)
- During the current school year, how much reading and writing have you done:
  - o number of assigned textbooks, books or book-length packs of course readings?
  - number of written papers or reports of 20 or more pages?
  - o number of written papers or reports between 5 and 19 pages?
  - o number of written papers or reports fewer than 5 pages?
- During the current school year, how much has your coursework emphasized the following mental activities:
  - analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components?
  - synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships?
  - making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions?
  - applying theories or concepts to practical problems or in new situations?
- In your experience at your institution during the current school year, about how often have you done each of the following: worked harder than you thought you could to meet an instructor's standard or expectations?
- To what extent does your institution emphasize each of the following: spending significant amounts of time studying and on academic work?

# Active and Collaborative Learning

- In your experience at your institution during the current school year, about how often have you done each of the following:
  - o asked questions in class or contributed to a class discussion?
  - o 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 (paid or voluntary)?
  - o participated in a community-based project as part of a regular course (e.g., service-learning)?
  - discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)?

# Student-Faculty Interaction <sup>24</sup>

- In your experience at your institution during the current school year, about how often have you done each of the following:
  - o discussed grades or assignments with an instructor?
  - o talked about career plans with a faculty member or advisor?
  - o discussed ideas from your readings with faculty members outside of class?

<sup>&</sup>lt;sup>24</sup> The item: "Which of the following have you done or do you plan to do before you graduate from your institution: work on a research project with a faculty member outside of course or program requirements?" is not included in the Student-Faculty Interaction benchmark for year-to-year comparisons, as the response set changed in 2004 from 'yes', 'no', and 'undecided' to 'done', 'plan to do', 'do not plan to do', and 'have not decided' (NSSE Benchmark Report, November 2005).

- worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)?
- received prompt feedback from faculty on your academic performance (written or oral)?
- Which of the following have you done or do you plan to do before you graduate from your institution: work on a research project with a faculty member outside of course or program requirements?

# Enriching Educational Experiences<sup>25</sup>

- To what extent does your institution emphasize each of the following: participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)?
- To what extent does your institution emphasize each of the following: encouraging contact among students from different economic, social, and racial or ethnic backgrounds?
- In your experience at your institution during the current school year, about how often have you done each of the following:
  - had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values?
  - had serious conversations with students of a different race or ethnicity than your own?
  - o used an electronic medium (list-serv, chat group, Internet, etc.) to discuss or complete an assignment?
- Which of the following have you done or do you plan to do before you graduate from your institution:
  - o practicum, internship, field experience, co-op experience, or clinical assignment?
    - o community service or volunteer work?
    - o foreign language coursework?
    - o study abroad?
    - independent study or self-designed major?
    - o culminating senior experience (comprehensive exam, capstone course, thesis, project, etc.)?

# Supportive Campus Environment

- To what extent does your institution emphasize each of the following:
  - o providing the support you need to succeed academically?
  - o helping you to cope with your non-academic responsibilities?
  - providing the support you need to thrive socially?
- Mark the box that best represents the quality of your relationships with people at your institution:
  - other students (friendly, supportive, a sense of belonging to unfriendly, unsupportive, and a sense of alienation)
  - o faculty members (available, helpful, and sympathetic to unavailable, unhelpful, and unsympathetic)
  - administrative personnel and offices (helpful, considerate, and flexible to unhelpful inconsiderate and rigid)

# Calculation of Multi-Institutional Group Benchmark Mean Scores

The NSSE team also provides benchmark means for multi-institution groups so that an institution's administration can compare itself to a Carnegie Classification group (i.e., NSSE-participating Doctoral Research Extensive Universities) or to a selected comparison group (i.e., Sci/Tech peers). UMBC data are not included in the comparison groups so that independent group comparisons can be made between UMBC and its peer groups. In 2005, NSSE began reporting multi-institution groups' benchmark mean scores at the student-level "to emphasize the variance and range among students attending different types of institutions. Thus, scores for multi-institution groups (Carnegie Classifications and national) represent the *average student* attending those types of institutions"

(http://nsse.iub.edu/NSSE\_2005\_Annual\_Report/index.cfm, accessed 03/21/2006: 41). Each student-level score is

<sup>&</sup>lt;sup>25</sup> The response sets for items associated with the question: "Which of the following have you done or do you plan to do before you graduate from your institution?" changed in 2004 from 'yes', 'no', and 'undecided' to 'done', 'plan to do', 'do not plan to do', and 'have not decided.' Therefore, only 2004 and 2005 benchmark scores and individual items comprising this benchmark can be compared (NSSE Benchmark Report, November 2005).

weighted within the institution by gender and enrollment status and then averaged to create the multi-institutional group benchmark mean score (NSSE 2005 Benchmark Report: 2; <u>http://nsse.iub.edu/NSSE\_2005\_Annual\_Report/index.cfm</u>, accessed 03/21/2006: 40).

#### Reliability and Validity

The National Survey of Student Engagement has demonstrated sound reliability and validity through a series of rigorous quantitative and qualitative analyses. Like most research examining collegiate quality and experiences, NSSE also relies upon student self-reports. Prior literature reveals that self-report data is reliable and accurate when five conditions are met: "(1) the information requested is known to the respondents; (2) the questions are phrased clearly and unambiguously; (3) the questions refer to recent activities; (4) the respondents think the questions merit a serious and thoughtful response; and (5) answering the questions does not threaten, embarrass, or violate the privacy of the respondent or encourage the respondent to respond in socially desirable ways" (Kuh et al., 2001: 9). Through a series of empirical studies, Kuh and associates have demonstrated that *The College Student Report* meets these requirements (Kuh, 2001; Kuh et al., 2001).

Additionally, the NSSE project team has established adequate reliability and validity through a series of analyses. First, many of the items in the NSSE survey instrument—*The College Student Report*—were borrowed and revised from nationally normed surveys that are administered on a yearly basis (i.e., CSEQ and CIRP) (Kuh et al., 2001: 8). After survey development, psychometric analyses were conducted after administering the first five NSSE surveys (Spring 1999, Fall 1999, Spring 2000, Spring 2001, Spring 2002) to establish reliability and validity. Analyses revealed that the NSSE was accurately measuring what it intended across institutions and over time.<sup>26</sup> The NSSE project team also conducted focus groups after the NSSE 2000 to understand if what the research team intended to measure was in fact how students interpreted the questions and response categories. These efforts provided valuable information in revising the 2001 version of *The College Student Report*. The NSSE research team also conducted cognitive testing before the 2001 survey administration. The NSSE project team continues to test the reliability and validity of *The College Student Report* with new efforts (Kuh, 2001; Ouimet et al., 2001).

#### Sample

UMBC participated in the spring 2001, 2004, and 2005 surveys.<sup>27</sup> Each time, UMBC provided NSSE with contact information (name and e-mail address) of first-year and senior students prior to each spring semester that the survey was administered.<sup>28</sup> The NSSE project team then e-mailed all students to complete the web-based version of the survey. Response rates have been stable across time for UMBC: 39% (2001) and 38% (2004 and 2005), and they are comparable to those realized for all NSSE participants [42% (2001), 38% (2004), and 37% (2005)], as well as those who administered the web-only version of the survey, like UMBC [NSSE web-only schools: 42% (2001), 41% (2004), and 42% (2005)] (NSSE 2001 Institutional Report, NSSE 2004 Institutional Report, NSSE 2005 Institutional Report).<sup>29</sup> UMBC's response rates are on par, if not slightly better, than its Doctoral/Research-Extensive institutional peer groups: 41% (2001), 34% (2004), and 32% (2005).

#### Comparison of UMBC Respondents to Non-respondents

Table 11 compares the demographic distribution of UMBC first-year and senior respondents to non-respondents for the three survey years. Across all survey years, females were more likely to respond than males. This is consistent with research on survey respondent patterns (NSSE 2005 Institutional Report). Regarding the distribution of respondents by race for first-year students, Asians tended to be under-represented (2 - 5 percentage points) compared to the population,

<sup>&</sup>lt;sup>26</sup> See Kuh (2001) for a detailed account of analyses conducted to establish the construct validity of the instrument.

<sup>&</sup>lt;sup>27</sup> UMBC also participated in the 2000 NSSE. Due to the 2000 the significant changes that were made to the NSSE subsequent to the 2000 administration, we speak to only the 2001, 2004, and 2005 data.

<sup>&</sup>lt;sup>28</sup> To ensure that the population included only first-year and senior-level students who had attended UMBC for the entire academic year (i.e., Fall 2000 and Spring 2001; Fall 2003 and Spring 2004; Fall 2004 and Spring 2005), UMBC provided NSSE with a file of spring enrollments prior to sample generation so that only those who had enrolled in the fall and spring semesters were included in the population.

 $<sup>^{29}</sup>$  According to the NSSE 2005 Institutional Report, the average sampling error is lowest for the web-only mode of administration (3.6%) compared to paper only (6.8%) or web and paper administration (4.3%).

while Whites tended to be over-represented (4-5 percentage points). For seniors, African-Americans were slightly under-represented (2-4 percentage points) in the 2001 and 2004 surveys while Whites are over-represented (2-7 percentage points).

The distribution of major discipline areas was similar for respondents compared to the population for seniors, while for first-years there tended to be a slightly higher representation of respondents in the Math/Sciences (2001, 2004) and Arts & Humanities (2005) and under-representation in Undecided/Other majors (2001 – 2005). Respondents also tended to have much higher average GPAs and SAT scores than non-respondents.

First-year respondents and non-respondents were similar in terms of dorm (residence hall) and commuter status for the 2004 and 2005 surveys, but respondents in the 2001 survey were much more likely than non-respondents to be dorm students. For seniors, dorm residents are consistently over-represented across the survey years, while commuters were under-represented. Finally, both first-year and senior respondents were similar to the population in terms of enrollment status across the three years of study.

#### Comparison of UMBC to Doctoral/Research-Extensive Peer Institutions

Each year, a random sample of first-year and senior students is surveyed from a convenience sample of participating institutions. The array of participating institutions generally has been representative of the different types of four-year colleges nationally. However, participation rates for private institutions are considerably lower than for public institutions (2001 NSSE Institution Report, 2004 NSSE Institution Report, and 2005 NSSE Institution Report).

Table 12 compares key institutional characteristics of UMBC with the Doc/Res-Ext institutions that participated in NSSE 2001, 2004, and 2005. These institutions constitute UMBC's peer groups for the three years that UMBC students were surveyed.

- UMBC's undergraduate enrollment is about half the size of the average for its NSSE peers (9,668 compared to over 18,500), and its full-time freshman cohort is less than half of the average for the peers (1,403 compared to over 3,300).
- While the percentage of UMBC undergraduates who are full-time (84%) is on par with our peer groups (85-86%), UMBC's minority representation (38% vs. 20-24%), especially African-American (14% vs. 7-8%), is much higher.
- UMBC is slightly more selective than its Doc/Res-Ext peer groups.
  - About a third of the entering freshmen, for UMBC and the peer groups, were in the top 10% of their high school classes.
  - UMBC's median SAT score is substantially higher than its peers groups over time (1220 vs. 1129 1158).
  - UMBC's applicant acceptance rate is comparable to the peer groups (~70%).
- Graduation rates (1998 cohort) tell a different story. UMBC's 4-year and 6-year rates are lower than the peer groups (by 4-8 and 6-8 percentage points, respectively); yet, UMBC's predicted 6-year rate (according to *U.S. News*' 2-factor regression using SATs and expenditures per student) is on par.
- Class size indicators (% of classes with fewer than 20 students and % with 50 or more) are fairly comparable. UMBC has a smaller percentage of the 50+ classes (12% vs. 13-14%).
- While UMBC has a similar proportion of full-time students as its peers, the proportion of its faculty that are full-time is slightly lower compared to its peer groups over the three-year period (73% vs. 76-77%).

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Benchmark	Class	Sig <sup>b</sup>	2001 <sup>c, d</sup>	2004	2005
			49.7	51.2	50.4
	FY		(49.6)	(51.6)	(50.7)
Level of Academic Challenge <sup><i>a</i></sup>	SR	**	51.5	54.4	55.8
	ы	*	(53.1)	(54.9)	(55.8)
	EV		38.1	36.0	36.2
Active and Colleborative Learning	FY		(37.2)	(35.6)	(36.4)
Active and Collaborative Learning	съ	***	39.3	42.6	45.1
	SR	**	(41.0)	(42.8)	(45.0)
	EV		34.3	32.5	33.9
Student Equility Interaction (for year to year comparisons)	FY		(31.8)	(31.9)	(33.8)
Student-Faculty Interaction (for year-to-year comparisons)	SR	***	33.5	39.9	42.5
	ы	***	(34.7)	(39.8)	(42.3)
		*		28.6	30.7
Parishing Education Providence	FY	*		(28.6)	(30.8)
Enriching Education Experiences	CD			36.3	36.9
	SR			(37.3)	(37.0)
	EV	*	59.3	58.6	55.6
Summertive Commune Environment	FY	*	(59.0)	(58.5)	(55.7)
Supportive Campus Environment	GD	***	44.9	52.2	52.2
SR		*	(48.5)	(52.3)	(52.3)

Table 1. UMBC Benchmark Mean Scores for All Years of NSSE Participation

Note: Highlighted values are weighted means; unweighted benchmark scores are in parentheses.

ANOVAs and t-tests were conducted to compare benchmark means across survey years.

<sup>a</sup> This benchmark is adjusted for part-time enrolled students so that schools with large populations of part-time

students would not be unduly impacted on this benchmark (The College Student Report 2005 Codebook, NSSE 2005).

<sup>b</sup> \*\*\* $p \le .001$ ; \*\* $p \le .01$ ; \* $p \le .05$  (2-tailed). Asterisks denote a significant difference between survey years.

<sup>c</sup> Weights prior to 2004 were computed exclusively using the most recent IPEDS data available. For instance, 2001 benchmarks were weighted using 1998-1999 IPEDS data. In 2004, institutional population files were used for class rank and gender because these files provided more recent and accurate data. Beginning in 2005, enrollment status information (full-time/part-time) was also taken from institutional population files rather than IPEDS (quoted from *NSSE Benchmark* 

Recalculation Report, November 2005: 2; http://nsse.iub.edu/2001\_annual\_report/index.html).

<sup>d</sup> For 2001, only those students in the base random sample contributed to national norms. Students included

in the random oversample were not included in 2001 UMBC weighted benchmark composite scores or in the national

norms. With one exception, benchmark composite scores did not significantly differ between students in the base random oversample

and students in the random oversample. The one exception was that first-year students who were in the base random sample had

significantly higher scores than those in the random sample on the Student-Faculty Interaction benchmark (p < .05).

Source: National Survey of Student Engagement (2001, 2004, 2005)

Benchmark	<i>Class</i> FY	<i>UMBC</i> 50.4	Sci/Tech Peers 50.3	<i>Doc-Ext</i> 51.2
Level of Academic Challenge <sup>a</sup>	SR	55.8	54.5	55.0
	FY	36.2	38.4**	38.9***
Active and Collaborative Learning	SR	45.1	47.4**	47.9**
	FY	28.9	29.7	30.7*
Student-Faculty Interaction	SR	38.0	39.6	40.6*
	FY	30.7	27.6***	28.1***
Enriching Education Experiences	SR	36.9	39.9***	41.0***
	FY	55.6	56.9	56.8
Supportive Campus Environment	SR	52.2	53.0	53.2

Table 2. 2005 Benchmark Mean Score Comparisons: UMBC vs. Institutional Peers

<u>Note</u>: Mean weighted benchmark scores are presented. "The mean is the weighted arithmetic average of student-level benchmark

scores" (weighted by enrollment status and gender) (NSSE 2005 Benchmark Report, November 2005: 2).

<sup>a</sup> This benchmark is adjusted for part-time enrolled students so that schools with large populations of part-time

students would not be unduly impacted on this benchmark (The College Student Report 2005 Codebook, NSSE 2005).

\*\*\* $p \le .001$ ; \*\* $p \le .01$ ; \* $p \le .05$  (2-tailed). Asterisks denote a significant difference between UMBC and a particular institutional peer group. Source: National Survey of Student Engagement (2005)

Table 3. UMBC Unweighted Benchmark Mean Scores: Comparisons within Demographic Groups
(2001, 2004, 2005)

	Fi	rst-year Stude	ents	<u>Seniors</u>		
	2001	2004	2005	2001	2004	2005
LEVEL OF ACADEMIC CHALLENGE BENCHMARK <sup>a</sup>						
Overall Benchmark Score (mean; weighted by enrollment status & gender)	49.7	51.2	50.4	53.1	54.4	55.8
Unweighted Benchmark Score (mean)	49.6	51.6	50.7	51.5	54.9	55.8
Gender						
Female	49.9	53.0**	52.3*	55.4***	56.2	57.2
Male	49.5	49.7	49.1	49.7	53.0	54.5
Race						
White						
Yes	48.8	50.6*	49.7*	51.8	54.3	55.8
No	51.0	53.2	52.9	55.1	55.6	55.7
African-American <sup>b</sup>						
Yes	51.8	56.0**	57.8***	57.0	55.4	58.3
No	49.3	51.0	50.0	52.4	54.7	55.4
Asian						
Yes	50.7	51.6	49.4	53.8	55.6	53.0
No	49.3	51.6	51.0	52.9	54.7	56.2
Dorm Status						
Resident	49.3	51.7	51.0	52.9	53.8	54.9
Commuter	49.9	51.3	50.5	53.2	55.4	56.2
Discipline Area <sup>°</sup>						
Arts & Humanities	53.4	48.1***	51.7*	56.0*	61.1***	60.4**
Social Sciences	51.8	52.0	54.5	53.6	55.6	56.8
Engineering, Computer & Info. Sciences	46.8	49.0	48.0	49.8	50.8	53.1
Math & Sciences	50.6	56.3	51.9	56.2	52.4	54.0
Undeclared/Other <sup>d</sup>	49.0	51.0	49.7			
Enrollment Status						
Full-time				53.4	55.3	55.9
Part-time				51.7	51.8	55.1
Original matriculation type						
Native				51.4	54.5	54.7
Transfer				54.6	55.3	56.9

Note: Gender, race, and discipline area are institutional data. Enrollment status and original matriculation type are variables derived from survey items on the NSSE.

\*\*\*  $p \le .001$ ; \*\*  $p \le .01$ ; \*  $p \le .05$  (2-tailed). Asterisks denote a significant difference between demographic groups within a survey year.

<sup>a</sup> This benchmark is adjusted for part-time enrolled students so that schools with large populations of part-time

students would not be unduly impacted on this benchmark (The College Student Report 2005 Codebook, NSSE 2005).

<sup>b</sup> The significance of the difference between mean benchmark areas scores for African-American and all other FY could not be determined as one of the groups had n < 30.

<sup>c</sup> The significance of the difference between mean benchmark areas scores for discipline area (FY) could not be determined as at least one of the groups had n < 30.

<sup>d</sup> Undeclared/Other includes those who had yet to declare a major, those who declared interdisciplinary studies, or those who were in the preprofessional programs. For senior-level students Undeclared/Other was set to missing and only four categories were used due to small n. Source: National Survey of Student Engagement (2001, 2004, 2005)

	Fi	First-year Students			<u>Seniors</u>		
	2001	2004	2005	2001	2004	2005	
ACTIVE & COLLABORATIVE LEARNING BENCHMARK							
Overall Benchmark Score (mean; weighted by enrollment status & gender)	38.1	36.0	36.2	39.3	42.6	45.1	
Unweighted Benchmark Score (mean)	37.2	35.6	36.4	41.0	42.8	45.0	
Gender							
Female	37.0	35.7	37.8	41.7	44.1	45.5	
Male	37.9	36.1	35.8	40.5	41.8	43.8	
Race							
White							
Yes	37.3	35.9	35.2**	40.1	41.7*	43.9	
No	37.3	35.5	39.8	43.3	45.5	45.7	
African-American <sup>a</sup>							
Yes	40.7	41.8***	46.2***	43.7	49.5**	51.6**	
No	36.8	35.0	35.7	40.9	42.1	43.5	
Asian							
Yes	35.8	32.1**	36.1	42.6	42.6	40.8	
No	37.8	36.7	36.7	41.1	43.2	45.2	
Dorm Status							
Resident	37.6	37.0**	37.8	41.1	42.7	45.6	
Commuter	36.6	32.6	34.3	41.3	43.4	43.9	
Discipline Area <sup>b</sup>							
Arts & Humanities	41.0	41.8*	40.0	45.0*	47.8*	49.1	
Social Sciences	36.4	35.9	39.9	38.5	41.9	44.8	
Engineering, Computer & Info. Sciences	34.9	34.3	34.3	39.2	43.6	43.4	
Math & Sciences	41.8	38.1	38.6	46.2	38.5	42.7	
Undeclared/Other <sup>c</sup>	35.0	34.4	34.9				
Enrollment Status			•				
Full-time				42.5***	43.5	44.5	
Part-time				31.9	40.1	44.6	
Original matriculation type							
Native				41.4	43.7	44.2	
Transfer				41.1	42.7	44.8	

# Table 3. UMBC Unweighted Benchmark Mean Scores: Comparisons within Demographic Groups (2001, 2004, 2005), continued

Note: Gender, race, and discipline area are institutional data. Enrollment status and original matriculation type are variables derived from survey items on the NSSE.

 $***p \le .001; **p \le .01; *p \le .05$  (2-tailed). Asterisks denote a significant difference between demographic groups within a survey year.

<sup>a</sup> The significance of the difference between mean benchmark areas scores for African-American and all other FY could not be determined as one of the groups had n < 30.

<sup>b</sup> The significance of the difference between mean benchmark areas scores for discipline area (FY) could not be determined as at least one of the groups had n < 30.

<sup>c</sup> Undeclared/Other includes those who had yet to declare a major, those who declared interdisciplinary studies, or those who were in the preprofessional programs. For senior-level students Undeclared/Other was set to missing and only four categories were used due to small n. Source: National Survey of Student Engagement (2001, 2004, 2005)

Table 3. UMBC Unweighted Benchmark Mean Scores: Comparisons within Demographic Groups
(2001, 2004, 2005), continued

	<b>First-year Students</b>			<u>Seniors</u>		
	2001	2004	2005	2001	2004	2005
STUDENT-FACULTY INTERACTION BENCHMARK (for year-to-year cor	nparisons)					
Overall Benchmark Score (mean; weighted by enrollment status & gender)	34.3	32.5	33.9	33.5	39.9	42.5
Unweighted Benchmark Score (mean)	31.8	31.9	33.8	34.7	39.8	42.3
Gender						
Female	31.7	30.9	33.6	35.3	40.8	41.6
Male	31.8	33.5	34.3	34.2	39.1	42.0
Race						
White						
Yes	32.0	31.2	31.8**	34.4	38.6	40.9
No	30.9	33.0	38.5	36.0	42.1	43.3
African-American <sup>a</sup>						
Yes	37.9	37.9**	46.0***	37.4	41.7	50.2**
No	30.8	31.1	32.6	34.6	39.6	40.6
Asian						
Yes	26.5	29.9	33.9	34.7	39.7	39.2
No	32.7	32.4	33.9	35.1	40.0	42.2
Dorm Status						
Resident	31.6	31.6	34.3	35.2	40.7	43.8
Commuter	33.0	33.3	33.4	34.8	39.8	40.7
Discipline Area <sup>b</sup>						
Arts & Humanities	40.0	30.8*	40.4***	39.9	43.5	46.2
Social Sciences	38.1	33.2	41.7	34.1	39.9	42.0
Engineering, Computer & Info. Sciences	26.7	31.2	27.3	32.9	38.3	39.2
Math & Sciences	31.7	36.5	37.4	35.9	38.5	38.6
Undeclared/Other <sup>c</sup>	30.6	29.3	30.5			
Enrollment Status						
Full-time				36.0*	40.4	41.4
Part-time				26.7	37.9	43.2
Original matriculation type						
Native				36.3	40.3	42.0
Transfer				33.6	39.9	41.3

Note: Gender, race, and discipline area are institutional data. Enrollment status and original matriculation type are variables derived from survey items on the NSSE.

\*\*\*  $p \le .001$ ; \*\*  $p \le .01$ ; \*  $p \le .05$  (2-tailed). Asterisks denote a significant difference between demographic groups within a survey year.

<sup>a</sup> The significance of the difference between mean benchmark areas scores for African-American and all other FY could not be determined as one of the groups had n < 30.

<sup>b</sup> The significance of the difference between mean benchmark areas scores for discipline area (FY) could not be determined as at least one of the groups had n < 30.

<sup>c</sup> Undeclared/Other includes those who had yet to declare a major, those who declared interdisciplinary studies, or those who were in the preprofessional programs. For senior-level students Undeclared/Other was set to missing and only four categories were used due to small n. Source: National Survey of Student Engagement (2001, 2004, 2005)

Table 3. UMBC Unweighted Benchmark Mean Scores: Comparisons within Demographic Groups
(2001, 2004, 2005), continued

	<u>Fi</u>	rst-year Stude	ents		Seniors	
	2001	2004	2005	2001	2004	2005
ENRICHING EDUCATIONAL EXPERIENCES BENCHMARK (compare o	nly 2004 to 20	05)				
Overall Benchmark Score (mean; weighted by enrollment status & gender)		28.6	30.7		36.3	36.9
Unweighted Benchmark Score (mean)		28.6	30.8		37.3	37.0
Gender						
Female		29.1	31.6		38.7	39.2*
Male		28.2	30.1		35.4	35.1
Race						
White						
Yes		28.7	29.7*		36.9	36.7
No		28.4	33.6		37.8	38.0
African-American <sup>a</sup>						
Yes		31.9*	37.3**		38.9	40.5
No		28.2	30.2		37.0	36.7
Asian						
Yes		26.2*	31.1		37.3	34.0
No		29.2	30.8		37.2	37.8
Dorm Status						
Resident		30.0***	31.7		40.9**	43.7***
Commuter		25.1	28.4		35.7	34.5
Discipline Area <sup>b</sup>						
Arts & Humanities		28.6***	30.1**		39.8**	37.7
Social Sciences		32.0	35.5		38.6	38.1
Engineering, Computer & Info. Sciences		26.8	28.2		32.2	34.1
Math & Sciences		31.4	32.7		38.0	38.8
Undeclared/Other <sup>c</sup>		26.8	29.7			
Enrollment Status						
Full-time					38.4***	37.8**
Part-time					28.7	29.1
Original matriculation type						
Native					40.4***	41.9***
Transfer					34.7	33.5

Note: Gender, race, and discipline area are institutional data. Enrollment status and original matriculation type are variables derived from survey items on the NSSE.

\*\*\*  $p \le .001$ ; \*\*  $p \le .01$ ; \*  $p \le .05$  (2-tailed). Asterisks denote a significant difference between demographic groups within a survey year.

<sup>a</sup> The significance of the difference between mean benchmark areas scores for African-American and all other FY could not be determined as one of the groups had n < 30.

<sup>b</sup> The significance of the difference between mean benchmark areas scores for discipline area (FY) could not be determined as at least one of the groups had n < 30.

<sup>c</sup> Undeclared/Other includes those who had yet to declare a major, those who declared interdisciplinary studies, or those who were in the preprofessional programs. For senior-level students Undeclared/Other was set to missing and only four categories were used due to small n. Source: National Survey of Student Engagement (2001, 2004, 2005)

	First-year Students				<u>Seniors</u>		
	2001	2004	2005	2001	2004	2005	
SUPPORTIVE CAMPUS ENVIRONMENT BENCHMARK							
Overall Benchmark Score (mean; weighted by enrollment status & gender)	59.3	58.6	55.6	44.9	52.2	52.2	
Unweighted Benchmark Score (mean)	59.0	58.5	55.7	48.5	52.3	52.3	
Gender							
Female	58.6	58.5	55.8	49.0	53.4	52.7	
Male	60.2	58.6	55.5	47.6	50.7	52.0	
Race							
White							
Yes	57.6	57.5	55.0	47.3	50.5	50.7*	
No	60.7	60.3	57.3	50.9	54.9	55.8	
African-American <sup>a</sup>							
Yes	68.1	66.3***	62.2*	53.9	53.9	60.2**	
No	57.3	57.6	55.0	47.8	51.9	51.4	
Asian							
Yes	56.4	57.5	53.5	53.2	54.9	50.4	
No	59.1	58.9	56.2	47.9	51.8	52.9	
Dorm Status							
Resident	58.8	58.4	56.4	52.1	50.8	54.7	
Commuter	60.4	59.0	53.1	47.1	52.9	51.3	
Discipline Area <sup>b</sup>							
Arts & Humanities	57.0	57.2*	56.6	50.5	53.4	54.2	
Social Sciences	63.3	58.0	55.4	47.9	51.6	51.7	
Engineering, Computer & Info. Sciences	56.8	59.8	54.5	45.9	53.4	53.1	
Math & Sciences	63.5	61.8	58.8	53.0	50.3	49.3	
Undeclared/Other <sup>c</sup>	57.2	55.5	54.5				
Enrollment Status							
Full-time				49.9***	52.2	52.0	
Part-time				38.1	53.1	55.1	
Original matriculation type							
Native				49.9	50.8	51.5	
Transfer				47.2	53.6	53.1	

# Table 3. UMBC Unweighted Benchmark Mean Scores: Comparisons within Demographic Groups (2001, 2004, 2005), continued

Note: Gender, race, and discipline area are institutional data. Enrollment status and original matriculation type are variables derived from survey items on the NSSE.

 $***p \le .001; **p \le .01; *p \le .05$  (2-tailed). Asterisks denote a significant difference between demographic groups within a survey year.

<sup>a</sup> The significance of the difference between mean benchmark areas scores for African-American and all other FY could not be determined as one of the groups had n < 30.

<sup>b</sup> The significance of the difference between mean benchmark areas scores for discipline area (FY) could not be determined as at least one of the groups had n < 30.

<sup>c</sup> Undeclared/Other includes those who had yet to declare a major, those who declared interdisciplinary studies, or those who were in the preprofessional programs. For senior-level students Undeclared/Other was set to missing and only four categories were used due to small n. Source: National Survey of Student Engagement (2001, 2004, 2005)

#### Table 4. Glossary of Benchmark Items Labels (used for Tables 5 - 8)

Benchmark	Benchmark Items
Level of Academic Challenge	
ACADPR01	Hours spent per week preparing for class (studying, reading, writing, doing homework or lab work, analyzing data, rehearsing, and other activities related to your academic program)
READASGN	Number of assigned textbooks, books, or book-length packs of course readings
WRITEMOR	Number of written papers or reports of 20 pages or more
WRITEMID	Number of written papers or reports between 5 and 19 pages
WRITESML	Number of written papers or reports of fewer than 5 pages
ANALYZE	Analyzing the basic elements of an idea, experience, or theory, such as examining a particular case or situation in depth and considering its components
SYNTHESZ	Synthesizing and organizing ideas, information, or experiences into new, more complex interpretations and relationships
EVALUATE	Making judgments about the value of information, arguments, or methods, such as examining how others gathered and interpreted data and assessing the soundness of their conclusions
APPLYING	Applying theories or concepts to practical problems or in new situations
WORKHARD	Worked harder than you thought you could to meet an instructor's standards or expectations
ENVSCHOL	The extent to which the institution emphasizes spending significant amounts of time studying and on academic work
Active and Collaborative Learning	
CLQUEST	Asked questions in class or contributed to class discussions
CLPRESEN	Made a class presentation
CLASSGRP	Worked with other students on projects during class
OCCGRP	Worked with classmates outside of class to prepare class assignments
TUTOR	Tutored or taught other students (paid or voluntary)
COMMPROJ	Participated in a community-based project as part of a regular course
OOCIDEAS	Discussed ideas from your readings or classes with others outside of class (students, family members, coworkers, etc.)
Student-Faculty Interaction	
FACGRADE	Discussed grades or assignments with an instructor
FACPLANS	Talked about career plans with a faculty member or advisor
FACIDEAS	Discussed ideas from your readings or classes with faculty members outside of class
FACOTHER	Worked with faculty members on activities other than coursework (committees, orientation, student life activities, etc.)
FACFEED	Received prompt feedback from faculty on your academic performance (written or oral)
RESEARCH	Work on a research project with a faculty member outside of course or program requirements

#### Table 4. Glossary of Benchmark Items Labels (used for Tables 5 - 8)

Benchmark	Benchmark Items
Enriching Educational Experience	
COCURR01	Hours spent per week participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)
INTERN	Practicum, internship, field experience, co-op experience, or clinical assignment
VOLUNTER	Community service or volunteer work
FORLANG	Foreign language coursework
STUDYABR	Study abroad
INDSTUDY	Independent study or self-designed major
SENIORX	Culminating senior experience (comprehensive exam, capstone course, thesis, project, etc.)
DIFFSTU2	Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values
DIVRSTUD	Had serious conversations with students of a different race or ethnicity than your own
ITACADEM	Used an electronic medium (list-serv, chat group, Internet, etc.) to discuss or complete an assignment
ENVDIVRS	Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
Supportive Campus Environment	
ENVSUPRT	Providing the support you need to help you succeed academically
ENVNACAD	Helping you cope with your non-academic responsibilities (work, family, etc.)
ENVSOCAL	Providing the support you need to thrive socially
ENVSTU	Relationships with other students
ENVFAC	Relationships with faculty members
ENVADM	Relationships with administrative personnel and offices

Table 5. Mean Score Comparisons on Individual Benchmark Items: UMBC First-Year Students Compared to NSSE-participating DREU Institutions (NSSE 2001, 2004, 2005)

			NS	SE 2001	L					NS	SE 2004	ļ					NS	SSE 2005	;		
		Mean		Signifi UM		Effect			Mean		Signific		Effect			Mean		Signifi UM		Effect	
	un ma	Doc-	NSSE	compare		compare		mma	Doc-	NSSE	compare		compare		mma	Doc-	NSSE	compare		compare	
Benchmark Items	UMBC n=254	Ext n=8,401	2001 n=33,569	Doc-Ext	NSSE 2001	Doc-Ext	NSSE 2001	UMBC n=540	Ext n=5,451	2004 n=44,422	Doc-Ext	NSSE 2004	Doc-Ext	NSSE 2004	UMBC n = 453	Ext n=6,704	2005 n=47,965	Doc-Ext	NSSE 2005	Doc-Ext	NSSE 2005
Level of Academic Challenge																					
ACADPR01	4.25	4.18	4.08	.52	.13	.04	.09	4.36	4.07	4.00	.00	.00	.17	.22	4.32	4.12	4.05	.02	.00	.12	.17
READASGN	3.13	3.43	3.43	.00	.00	32	31	3.22	3.38	3.42	.00	.00	16	20	3.18	3.31	3.31	.01	.00	14	14
WRITEMOR	1.15	1.18	1.21	.22	.01	06	11	1.11	1.21	1.25	.00	.00	17	21	1.18	1.20	1.25	.53	.01	03	10
WRITEMID	2.08	2.37	2.41	.00	.00	33	37	2.11	2.31	2.40	.00	.00	24	33	2.08	2.32	2.40	.00	.00	28	37
WRITESML	2.65	3.14	3.25	.00	.00	46	56	2.65	3.13	3.25	.00	.00	45	56	2.76	3.08	3.21	.00	.00	31	43
ANALYZE	3.01	3.13	3.13	.03	.02	15	15	3.16	3.13	3.14	.46	.46	.03	.03	3.14	3.07	3.09	.06	.17	.10	.07
SYNTHESZ	2.80	2.81	2.84	.83	.45	01	05	2.83	2.84	2.88	.74	.17	02	06	2.84	2.82	2.87	.58	.52	.03	03
EVALUATE	2.61	2.71	2.78	.08	.00	12	20	2.72	2.77	2.84	.25	.00	05	13	2.70	2.76	2.84	.26	.00	06	16
APPLYING	2.98	2.98	2.97	.98	.80	.00	.02	3.06	3.04	3.03	.66	.49	.02	.03	2.97	2.98	2.99	.88	.69	01	02
WORKHARD	2.46	2.53	2.58	.18	.03	08	14	2.45	2.52	2.60	.09	.00	08	17	2.45	2.52	2.63	.12	.00	08	22
ENVSCHOL	3.35	3.12	3.14	.00	.00	.30	.27	3.45	3.12	3.14	.00	.00	.44	.41	3.34	3.09	3.13	.00	.00	.33	.28
Active and Collaborative Learning																					
CLQUEST	2.58	2.63	2.79	.38	.00	06	25	2.55	2.62	2.84	.06	.00	09	34	2.58	2.61	2.86	.40	.00	04	34
CLPRESEN	1.72	2.02	2.18	.00	.00	40	59	1.79	2.02	2.24	.00	.00	31	58	1.73	2.03	2.28	.00	.00	40	70
CLASSGRP	2.31	2.39	2.42	.11	.02	10	14	2.09	2.29	2.33	.00	.00	24	30	2.17	2.33	2.40	.00	.00	19	28
OCCGRP	2.28	2.31	2.35	.66	.28	03	08	2.31	2.36	2.39	.26	.04	05	10	2.34	2.33	2.43	.75	.04	.02	10
TUTOR	1.78	1.63	1.63	.01	.01	.18	.18	1.69	1.69	1.67	.85	.45	.01	.03	1.70	1.74	1.72	.39	.65	04	02
COMMPROJ	1.39	1.29	1.37	.02	.59	.15	.03	1.34	1.49	1.56	.00	.00	19	26	1.40	1.46	1.54	.16	.00	07	17
OOCIDEAS	2.76	2.68	2.73	.16	.62	.10	.03	2.71	2.73	2.73	.53	.46	03	03	2.72	2.68	2.73	.39	.78	.04	01
Student-Faculty Interaction																					
FACGRADE	2.32	2.50	2.56	.00	.00	22	28	2.36	2.50	2.59	.00	.00	15	26	2.36	2.50	2.62	.00	.00	16	31
FACPLANS	1.90	2.02	2.11	.03	.00	15	25	2.05	2.06	2.15	.71	.01	02	11	1.95	2.05	2.17	.02	.00	12	25
FACIDEAS	1.63	1.65	1.75	.71	.01	02	14	1.59	1.70	1.81	.00	.00	14	27	1.64	1.72	1.86	.05	.00	10	25
FACOTHER	1.45	1.38	1.51	.15	.17	.10	08	1.36	1.44	1.57	.02	.00	11	26	1.52	1.48	1.63	.34	.00	.05	14
FACFEED	2.46	2.54	2.61	.16	.01	09	17	2.42	2.57	2.64	.00	.00	18	26	2.61	2.65	2.76	.31	.00	06	19
RESEARCH								.03	.03	.03	.88	.49	01	03	.03	.04	.05	.37	.05	05	08

2-tailed significance tests.

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

Source: National Survey of Student Engagement (2001, 2004, 2005)

Table 5. Mean Score Comparisons on Individual Benchmark Items: UMBC First-Year Students Compared to NSSE-participating DREU Institutions (NSSE 2001, 2004, 2005)

			NS	SE 2001						NS	SSE 2004	ļ.					NS	SE 2005			
		Mean		Signific		Effect			Mean		Signifi UM		Effect			Mean		Signific UM		Effect	
	UMBC	Doc- Ext	NSSE 2001	UM. compare		UM. compare		UMBC	Doc- Ext	NSSE 2004	UM compare		UM. compare		UMBC	Doc- Ext	NSSE 2005	UM. compare		UM. compare	-
Benchmark Items	n=254	n=8,401	n=33,569	Doc-Ext	NSSE 2001	Doc-Ext	NSSE 2001	n=540	n=5,451	n=44,422	Doc-Ext	NSSE 2004	Doc-Ext	NSSE 2004	n = 453	n=6,704	n=47,965	Doc-Ext	NSSE 2005	Doc-Ext	NSSE 2005
Enriching Educational Experience																					
COCURR01	2.05	2.23	2.32	.04	.00	12	17	2.04	2.20	2.22	.02	.01	11	12	2.20	2.29	2.31	.28	.14	06	07
INTERN								.05	.05	.06	.74	.34	.02	04	.11	.07	.09	.00	.10	.18	.09
VOLUNTER								.25	.35	.37	.00	.00	20	25	.34	.42	.42	.00	.00	15	16
FORLANG								.25	.26	.23	.55	.30	03	.05	.28	.25	.25	.19	.22	.07	.06
STUDYABR								.02	.01	.02	.56	.41	.03	04	.02	.02	.02	.70	.54	.02	03
INDSTUDY								.01	.02	.02	.00	.00	09	11	.04	.02	.03	.08	.51	.12	.03
SENIORX								.00	.01	.01	.11	.00	05	08	.02	.01	.02	.36	.77	.05	.01
DIFFSTU2	3.10	2.94	2.90	.01	.00	.17	.21	2.95	2.78	2.74	.00	.00	.17	.21	3.03	2.81	2.77	.00	.00	.23	.27
DIVRSTUD	3.10	2.73	2.65	.00	.00	.37	.44	2.98	2.61	2.56	.00	.00	.36	.41	2.99	2.65	2.60	.00	.00	.34	.39
ITACADEM	2.62	2.65	2.58	.69	.46	02	.04	2.78	2.67	2.63	.01	.00	.11	.14	2.73	2.70	2.61	.54	.01	.03	.11
ENVDIVRS	2.94	2.50	2.54	.00	.00	.45	.41	2.97	2.54	2.60	.00	.00	.45	.38	2.85	2.54	2.60	.00	.00	.32	.26
Supportive Campus Environment																					
ENVSUPRT	3.13	2.87	3.00	.00	.01	.30	.16	3.13	2.98	3.10	.00	.37	.19	.04	3.06	2.93	3.06	.00	.94	.16	.00
ENVNACAD	2.13	1.94	2.08	.00	.34	.22	.06	1.95	2.02	2.15	.09	.00	07	21	1.96	2.03	2.17	.14	.00	08	22
ENVSOCAL	2.25	2.27	2.33	.77	.26	02	08	2.17	2.34	2.36	.00	.00	19	21	2.17	2.35	2.38	.00	.00	20	23
ENVSTU	5.61	5.67	5.69	.51	.41	05	06	5.53	5.67	5.68	.02	.01	11	11	5.34	5.47	5.56	.06	.00	09	17
ENVFAC	5.08	5.13	5.39	.54	.00	04	26	5.23	5.29	5.58	.23	.00	05	30	5.04	4.96	5.36	.20	.00	.07	25
ENVADM	4.52	4.65	4.90	.20	.00	09	26	4.78	4.87	5.13	.20	.00	06	24	4.25	4.44	4.76	.01	.00	13	34

2-tailed significance tests

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

<sup>c</sup> For items that reflect enriching educational activities like internships, volunteering, taking a foreign language, going abroad to study, engaging in an independent study or a culminating senior experience,

the percentage of students who reported having done any one of these it reported.

Source: National Survey of Student Engagement (2001, 2004, 2005)

#### Table 6. Mean Score Comparisons on Individual Benchmark Items: UMBC Senior-level Students Compared to NSSE-participating DREU Institutions (NSSE 2001, 2004, 2005)

			NS	SSE 2001	l					N	SSE 2004	1					N	SSE 2005	5		
		Mean		Signific		Effect			Mean		Signific		Effect			Mean		Signifi		Effect	
			NSSE	UM. compare		UM. compare				NSSE	UM compare		UM compare				NSSE	UM compare		UM compare	
	UMBC	Doc-Ext	2001	compure	NSSE	compare	NSSE	UMBC	Doc-Ext	2004	compure	NSSE	compare	NSSE	UMBC	Doc-Ext	2005	compare	NSSE	compare	NSSE
Benchmark Items	n=255	n=8,744	n=37,855	Doc-Ext	2001	Doc-Ext	2001	n=328	n=5,477	n=45,219	Doc-Ext	NSSE 2004	Doc-Ext	NSSE 2004	n=390	n=6,631	n=50,495	Doc-Ext	NSSE 2005	Doc-Ext	2005 NSSE
Level of Academic Challenge																					
ACADPR01	4.21	4.10	4.11	.34	.38	.06	.06	4.12	4.13	4.08	.94	.68	.00	.02	4.49	4.18	4.09	.00	.00	.18	.23
READASGN	3.18	3.28	3.29	.13	.08	10	11	3.27	3.26	3.32	.78	.36	.02	05	3.21	3.20	3.22	.87	.84	.01	01
WRITEMOR	1.34	1.59	1.64	.00	.00	33	40	1.45	1.57	1.66	.00	.00	16	27	1.52	1.61	1.68	.02	.00	12	21
WRITEMID	2.35	2.58	2.66	.00	.00	23	32	2.49	2.54	2.66	.44	.00	04	17	2.48	2.59	2.68	.04	.00	11	21
WRITESML	2.55	3.04	3.12	.00	.00	42	48	2.66	3.01	3.11	.00	.00	30	38	2.73	3.09	3.13	.00	.00	30	33
ANALYZE	3.22	3.25	3.28	.53	.24	04	08	3.27	3.26	3.30	.82	.45	.01	04	3.27	3.22	3.24	.17	.48	.07	.04
SYNTHESZ	2.94	2.97	3.04	.61	.09	04	12	3.00	2.99	3.09	.95	.05	.00	11	2.99	2.98	3.06	.83	.14	.01	08
EVALUATE	2.70	2.84	2.92	.02	.00	15	24	2.91	2.88	2.99	.52	.15	.04	09	2.87	2.90	2.99	.56	.01	03	13
APPLYING	3.11	3.12	3.16	.86	.33	01	06	3.13	3.18	3.23	.30	.03	06	12	3.17	3.15	3.19	.70	.55	.02	03
WORKHARD	2.70	2.57	2.67	.03	.57	.15	.04	2.61	2.60	2.72	.91	.02	.01	14	2.69	2.65	2.76	.31	.18	.05	08
ENVSCHOL	3.21	3.06	3.12	.00	.07	.18	.11	3.31	3.08	3.13	.00	.00	.30	.23	3.37	3.08	3.14	.00	.00	.36	.30
Active and Collaborative Learning																					
CLQUEST	2.73	2.87	3.08	.02	.00	16	42	2.93	2.91	3.16	.67	.00	.02	27	2.92	2.91	3.16	.78	.00	.01	29
CLPRESEN	2.29	2.57	2.79	.00	.00	33	60	2.34	2.63	2.86	.00	.00	33	61	2.39	2.64	2.88	.00	.00	29	59
CLASSGRP	2.47	2.42	2.51	.33	.53	.06	04	2.23	2.35	2.44	.01	.00	14	24	2.45	2.43	2.52	.65	.11	.02	08
OCCGRP	2.44	2.73	2.74	.00	.00	33	34	2.47	2.79	2.73	.00	.00	35	29	2.59	2.78	2.77	.00	.00	21	20
TUTOR	1.65	1.77	1.83	.03	.00	13	19	1.79	1.87	1.91	.15	.03	08	12	1.82	1.88	1.94	.25	.02	06	12
COMMPROJ	1.37	1.47	1.57	.04	.00	13	25	1.41	1.59	1.74	.00	.00	22	36	1.42	1.60	1.77	.00	.00	21	37
OOCIDEAS	2.68	2.82	2.87	.02	.00	17	23	2.82	2.87	2.90	.29	.08	06	10	2.80	2.83	2.88	.47	.08	04	10
Student-Faculty Interaction																					
FACGRADE	2.61	2.71	2.79	.08	.00	12	21	2.69	2.74	2.84	.39	.00	05	17	2.73	2.75	2.87	.60	.00	03	17
FACPLANS	1.98	2.24	2.43	.00	.00	29	48	2.25	2.30	2.50	.33	.00	06	26	2.24	2.35	2.53	.03	.00	12	31
FACIDEAS	1.75	1.89	2.03	.00	.00	18	33	1.88	1.93	2.11	.26	.00	06	26	2.03	1.99	2.16	.42	.01	.05	14
FACOTHER	1.41	1.63	1.81	.00	.00	25	43	1.58	1.72	1.90	.01	.00	15	33	1.66	1.76	1.93	.04	.00	11	28
FACFEED	2.45	2.67	2.80	.00	.00	28	43	2.57	2.71	2.85	.01	.00	16	34	2.68	2.82	2.94	.00	.00	18	35
RESEARCH		•						.15	.20	.20	.01	.01	13	13	.15	.22	.21	.00	.00	16	15

2-tailed significance tests

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

Source: National Survey of Student Engagement (2001, 2004, 2005)

#### Table 6. Mean Score Comparisons on Individual Benchmark Items: UMBC Senior-level Students Compared to NSSE-participating DREU Institutions (NSSE 2001, 2004, 2005)

			NS	SSE 2001	l					N	SSE 2004	4					N	SSE 200	5		
		Mean		Signific	cance <sup>a</sup>	Effect	size <sup>b</sup>		Mean		Signifi	cance <sup>a</sup>	Effect	size <sup>b</sup>		Mean		Signifi	cance <sup>a</sup>	Effect	t size <sup>b</sup>
			NSSE	UM		UM				NSSE	UM		UM				NSSE	UM		UM	-
	IMBC	Doc-Ext	2001	compare	d with:	compare	ed with:	UMBC	Doc-Ext	2004	compare	ed with:	compare	ed with:	UMBC	Doc-Ext	2005	compar	ed with:	compare	ed with:
Benchmark Items	n=255	n=8,744		Doc-Ext	NSSE 2001	Doc-Ext	NSSE 2001	n=328	n=5,477		Doc-Ext	NSSE 2004	Doc-Ext	NSSE 2004	n=390	n=6,631	n=50,495	Doc-Ext	NSSE 2005	Doc-Ext	NSSE 2005
Enriching Educational Experience																					
COCURR01	1.83	2.10	2.21	.00	.00	19	25	1.86	2.06	2.14	.02	.00	14	19	1.97	2.13	2.19	.04	.01	11	14
INTERN								.43	.51	.56	.00	.00	16	26	.40	.54	.58	.00	.00	29	38
VOLUNTER								.43	.59	.60	.00	.00	33	36	.41	.63	.64	.00	.00	44	48
FORLANG								.53	.47	.43	.04	.00	.12	.20	.61	.48	.46	.00	.00	.25	.30
STUDYABR								.09	.15	.16	.00	.00	17	20	.08	.17	.18	.00	.00	23	25
INDSTUDY								.15	.18	.23	.14	.00	08	19	.09	.18	.23	.00	.00	24	33
SENIORX								.10	.25	.35	.00	.00	35	53	.12	.28	.38	.00	.00	36	55
DIFFSTU2	2.92	2.87	2.84	.43	.21	.05	.08	2.92	2.75	2.72	.00	.00	.17	.21	2.82	2.78	2.76	.39	.23	.05	.07
DIVRSTUD	3.03	2.72	2.63	.00	.00	.32	.40	2.92	2.70	2.62	.00	.00	.22	.30	2.87	2.71	2.65	.00	.00	.17	.22
ITACADEM	2.59	2.75	2.71	.02	.08	15	12	2.97	2.78	2.78	.00	.00	.18	.18	2.93	2.83	2.81	.06	.03	.10	.11
ENVDIVRS	2.52	2.25	2.33	.00	.01	.27	.19	2.70	2.29	2.41	.00	.00	.41	.29	2.66	2.31	2.42	.00	.00	.37	.24
Supportive Campus Environment	•			•																	
ENVSUPRT	2.64	2.63	2.84	.82	.00	.02	23	2.83	2.75	2.97	.13	.01	.09	17	2.87	2.75	2.97	.01	.03	.14	12
ENVNACAD	1.65	1.73	1.87	.12	.00	09	25	1.77	1.74	1.92	.64	.00	.03	17	1.80	1.82	1.97	.67	.00	02	18
ENVSOCAL	1.73	2.00	2.09	.00	.00	29	38	1.93	2.03	2.12	.07	.00	11	20	2.05	2.11	2.17	.27	.01	06	13
ENVSTU	5.29	5.65	5.71	.00	.00	28	33	5.25	5.65	5.75	.00	.00	30	39	5.17	5.51	5.68	.00	.00	25	40
ENVFAC	5.04	5.18	5.52	.09	.00	11	37	5.28	5.39	5.73	.17	.00	09	37	5.15	5.21	5.64	.46	.00	04	39
ENVADM	4.07	4.28	4.57	.06	.00	12	30	4.25	4.55	4.82	.00	.00	18	34	4.06	4.32	4.63	.00	.00	16	34

2-tailed significance tests

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

<sup>c</sup> For items that reflect enriching educational activities like internships, volunteering, taking a foreign language, going abroad to study, engaging in an independent study or a culminating senior experience,

the percentage of students who reported having done any one of these it reported.

Source: National Survey of Student Engagement (2001, 2004, 2005)

Table 7. Mean Score Comparisons on Individual Benchmark Items: UMBC First-Year Students vs. Public Doctoral Research-Extensive Sci/Tech Peers (2005)

			lean			Significance C compared			Effect size C compared	
Benchmark Items	UMBC n = 453	Sci/Tech Peers n = 2,486	Doc-Ext n = 6,704	NSSE 2005 n = 47,965	Sci/Tech Peers	Doc-Ext	NSSE 2005	Sci/Tech Peers	Doc-Ext	NSSE 2005
Level of Academic Challenge										
ACADPR01	4.32	4.16	4.12	4.05	.06	.02	.00	.10	.12	.17
READASGN	3.18	3.27	3.31	3.31	.07	.01	.00	10	14	14
WRITEMOR	1.18	1.20	1.20	1.25	.50	.53	.01	04	03	10
WRITEMID	2.08	2.21	2.32	2.40	.00	.00	.00	16	28	37
WRITESML	2.76	2.97	3.08	3.21	.00	.00	.00	20	31	43
ANALYZE	3.14	3.03	3.07	3.09	.01	.06	.17	.14	.10	.07
SYNTHESZ	2.84	2.79	2.82	2.87	.24	.58	.52	.06	.03	03
EVALUATE	2.70	2.73	2.76	2.84	.62	.26	.00	03	06	16
APPLYING	2.97	2.93	2.98	2.99	.41	.88	.69	.04	01	02
WORKHARD	2.45	2.47	2.52	2.63	.66	.12	.00	02	08	22
ENVSCHOL	3.34	3.09	3.09	3.13	.00	.00	.00	.33	.33	.28
Active and Collaborative Learning										
CLQUEST	2.58	2.51	2.61	2.86	.13	.40	.00	.08	04	34
CLPRESEN	1.73	1.99	2.03	2.28	.00	.00	.00	35	40	70
CLASSGRP	2.17	2.33	2.33	2.40	.00	.00	.00	19	19	28
OCCGRP	2.34	2.38	2.33	2.43	.40	.75	.04	04	.02	10
TUTOR	1.70	1.73	1.74	1.72	.43	.39	.65	04	04	02
COMMPROJ	1.40	1.42	1.46	1.54	.74	.16	.00	02	07	17
OOCIDEAS	2.72	2.66	2.68	2.73	.25	.39	.78	.06	.04	01
Student-Faculty Interaction										
FACGRADE	2.36	2.45	2.50	2.62	.04	.00	.00	11	16	31
FACPLANS	1.95	2.01	2.05	2.17	.13	.02	.00	08	12	25
FACIDEAS	1.64	1.71	1.72	1.86	.16	.05	.00	07	10	25
FACOTHER	1.52	1.47	1.48	1.63	.30	.34	.00	.06	.05	14
FACFEED	2.61	2.59	2.65	2.76	.74	.31	.00	.02	06	19
RESEARCH	.03	.05	.04	.05	.07	.37	.05	08	05	08

2-tailed significance tests

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

Source: National Survey of Student Engagement (2005)

		Ν	lean			<b>ignificance</b> C compared			Effect size C compared	
Benchmark Items	UMBC n = 453	Sci/Tech Peers n = 2,486	Doc-Ext n = 6,704	NSSE 2005 n = 47,965	Sci/Tech Peers	Doc-Ext	NSSE 2005	Sci/Tech Peers	Doc-Ext	NSSE 2005
Enriching Educational Experience										
COCURR01	2.20	2.36	2.29	2.31	.06	.28	.14	10	06	07
INTERN	.11	.07	.07	.09	.01	.00	.10	.17	.18	.09
VOLUNTER	.34	.40	.42	.42	.03	.00	.00	11	15	16
FORLANG	.28	.19	.25	.25	.00	.19	.22	.23	.07	.06
STUDYABR	.02	.02	.02	.02	.77	.70	.54	.02	.02	03
INDSTUDY	.04	.02	.02	.03	.09	.08	.51	.12	.12	.03
SENIORX	.02	.01	.01	.02	.44	.36	.77	.04	.05	.01
DIFFSTU2	3.03	2.81	2.81	2.77	.00	.00	.00	.23	.23	.27
DIVRSTUD	2.99	2.63	2.65	2.60	.00	.00	.00	.35	.34	.39
ITACADEM	2.73	2.69	2.70	2.61	.49	.54	.01	.03	.03	.11
ENVDIVRS	2.85	2.54	2.54	2.60	.00	.00	.00	.32	.32	.26
Supportive Campus Environment										
ENVSUPRT	3.06	2.94	2.93	3.06	.01	.00	.94	.15	.16	.00
ENVNACAD	1.96	2.02	2.03	2.17	.27	.14	.00	06	08	22
ENVSOCAL	2.17	2.32	2.35	2.38	.00	.00	.00	17	20	23
ENVSTU	5.34	5.48	5.47	5.56	.05	.06	.00	11	09	17
ENVFAC	5.04	4.87	4.96	5.36	.01	.20	.00	.13	.07	25
ENVADM	4.25	4.48	4.44	4.76	.00	.01	.00	15	13	34

Table 7. Mean Score Comparisons on Individual Benchmark Items: UMBC First-Year Students vs. Public Doctoral Research-Extensive Sci/Tech Peers (2005)

2-tailed significance tests

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

Source: National Survey of Student Engagement (2005)

Table 8. Mean Score Comparisons on Individual Benchmark Items: UMBC Seniors vs. Public Doctoral Research-Extensive Sci/Tech Peers (2005)

		М	ean			<b>ignificance</b> C compared			Effect size	
Benchmark Items	UMBC n = 390	Sci/Tech Peers n = 2,384	Doc-Ext n = 6,631	NSSE 2005 n = 50,495	Sci/Tech Peers	Doc-Ext	NSSE 2005	Sci/Tech Peers	Doc-Ext	NSSE 2005
Level of Academic Challenge										
ACADPR01	4.49	4.29	4.18	4.09	.05	.00	.00	.11	.18	.23
READASGN	3.21	3.14	3.20	3.22	.21	.87	.84	.07	.01	01
WRITEMOR	1.52	1.61	1.61	1.68	.03	.02	.00	12	12	21
WRITEMID	2.48	2.53	2.59	2.68	.29	.04	.00	06	11	21
WRITESML	2.73	3.06	3.09	3.13	.00	.00	.00	28	30	33
ANALYZE	3.27	3.19	3.22	3.24	.07	.17	.48	.10	.07	.04
SYNTHESZ	2.99	2.93	2.98	3.06	.22	.83	.14	.07	.01	08
EVALUATE	2.87	2.85	2.90	2.99	.63	.56	.01	.03	03	13
APPLYING	3.17	3.14	3.15	3.19	.62	.70	.55	.03	.02	03
WORKHARD	2.69	2.59	2.65	2.76	.04	.31	.18	.12	.05	08
ENVSCHOL	3.37	3.09	3.08	3.14	.00	.00	.00	.35	.36	.30
Active and Collaborative Learning										
CLQUEST	2.92	2.80	2.91	3.16	.01	.78	.00	.14	.01	29
CLPRESEN	2.39	2.59	2.64	2.88	.00	.00	.00	24	29	59
CLASSGRP	2.45	2.40	2.43	2.52	.32	.65	.11	.05	.02	08
OCCGRP	2.59	2.87	2.78	2.77	.00	.00	.00	30	21	20
TUTOR	1.82	1.94	1.88	1.94	.03	.25	.02	12	06	12
COMMPROJ	1.42	1.55	1.60	1.77	.00	.00	.00	16	21	37
OOCIDEAS	2.80	2.80	2.83	2.88	.93	.47	.08	01	04	10
Student-Faculty Interaction										
FACGRADE	2.73	2.70	2.75	2.87	.56	.60	.00	.03	03	17
FACPLANS	2.24	2.31	2.35	2.53	.16	.03	.00	08	12	31
FACIDEAS	2.03	1.96	1.99	2.16	.17	.42	.01	.08	.05	14
FACOTHER	1.66	1.76	1.76	1.93	.04	.04	.00	11	11	28
FACFEED	2.68	2.74	2.82	2.94	.16	.00	.00	08	18	35
RESEARCH	.15	.24	.22	.21	.00	.00	.00	21	16	15

2-tailed significance tests

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

Source: National Survey of Student Engagement (2005)

		М	ean			Significance C compared			Effect size C compared	
Benchmark Items	UMBC n = 390	Sci/Tech Peers n = 2,384	Doc-Ext n = 6,631	NSSE 2005 n = 50,495	Sci/Tech Peers	Doc-Ext	NSSE 2005	Sci/Tech Peers	Doc-Ext	NSSE 2005
Level of Academic Challenge										
Enriching Educational Experience										
COCURR01	1.97	2.16	2.13	2.19	.02	.04	.01	13	11	14
INTERN	.40	.55	.54	.58	.00	.00	.00	31	29	38
VOLUNTER	.41	.63	.63	.64	.00	.00	.00	45	44	48
FORLANG	.61	.42	.48	.46	.00	.00	.00	.38	.25	.30
STUDYABR	.08	.17	.17	.18	.00	.00	.00	23	23	25
INDSTUDY	.09	.18	.18	.23	.00	.00	.00	23	24	33
SENIORX	.12	.28	.28	.38	.00	.00	.00	38	36	55
DIFFSTU2	2.82	2.77	2.78	2.76	.40	.39	.23	.05	.05	.07
DIVRSTUD	2.87	2.68	2.71	2.65	.00	.00	.00	.20	.17	.22
ITACADEM	2.93	2.80	2.83	2.81	.02	.06	.03	.13	.10	.11
ENVDIVRS	2.66	2.28	2.31	2.42	.00	.00	.00	.40	.37	.24
Supportive Campus Environment										
ENVSUPRT	2.87	2.71	2.75	2.97	.00	.01	.03	.19	.14	12
ENVNACAD	1.80	1.79	1.82	1.97	.79	.67	.00	.02	02	18
ENVSOCAL	2.05	2.06	2.11	2.17	.87	.27	.01	01	06	13
ENVSTU	5.17	5.53	5.51	5.68	.00	.00	.00	26	25	40
ENVFAC	5.15	5.08	5.21	5.64	.33	.46	.00	.06	04	39
ENVADM	4.06	4.36	4.32	4.63	.00	.00	.00	18	16	34

#### Table 8. Mean Score Comparisons on Individual Benchmark Items: UMBC Seniors vs. Public Doctoral Research-Extensive Sci/Tech Peers (2005)

2-tailed significance tests

Yellow shaded areas highlight items in which UMBC has scored significantly higher than its peers over time. Blue shaded areas highlight items in which UMBC has scored significantly lower than its peers over time.

\* n's are based off the total number of respondents. N's may vary from item to item as pairwise deletion methods were used to conduct the analyses.

<sup>a</sup> This statistic represents the probability that the difference between the mean of your institution and that of the comparison group occurred by chance.

<sup>b</sup> Effect size is calculated by subtracting the comparison group mean from the school mean, and dividing the result by the standard deviation of the comparison group.

Source: National Survey of Student Engagement (2005)

#### Table 9. Trends in Overall Satisfaction of UMBC First-year and Senior-level Students

			First-	Years					Sen	iors		
	20	)01	20	04	20	005	20	001	20	04	20	005
	(n =	251)	(n =	520)	(n =	396)	(n =	251)	(n =	316)	(n =	349)
Overall Satisfaction Items	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Overall, how would you evaluate the quality of academic advising you have received at your institution? <sup>a</sup>	2.73	3.00	2.92	3.00	2.80	3.00	2.57	3.00	2.72	3.00	2.71	3.00
How would you evaluate your entire educational experience at this institution? <sup>a</sup>	3.14	3.00	3.15	3.00	3.12	3.00	2.98	3.00	3.06	3.00	3.08	3.00
If you could start over again, would you go to the same institution you are now attending? <sup>b</sup>	3.08	3.00	3.12	3.00	3.08	3.00	2.88	3.00	2.93	3.00	3.02	3.00

<sup>a</sup> Response categories: (1) poor, (2) fair, (3) good, (4) excellent

<sup>b</sup> Response categories: (1) definitely no, (2) probably no, (3) probably yes, (4) definitely yes

Source: National Survey of Student Engagement (2001, 2004, 2005)

			First-	Years					Sen	iors		
	20	01	20	04	20	05	20	01	20	004	20	005
	(n =	251)	(n =	520)	(n =	406)	(n =	251)	(n =	315)	(n =	352)
Time on Task Items (Hours/week)	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median	Mean	Median
Preparing for class (studying, reading, writing, doing homework												
or lab work, analyzing data, rehearsing, and other academic activities)	4.25	4.00	4.36	4.00	4.32	4.00	4.21	4.00	4.12	4.00	4.49	4.00
Working for pay on-campus	1.32	1.00	1.36	1.00	1.38	1.00	1.61	1.00	1.66	1.00	1.60	1.00
Working for pay off-campus	1.94	1.00	1.98	1.00	1.87	1.00	3.51	3.00	3.67	3.00	3.56	3.00
Participating in co-curricular activities (organizations, campus publications, student government, social fraternity or sorority, intercollegiate or intramural sports, etc.)	2.05	2.00	2.04	2.00	2.20	2.00	1.83	1.00	1.86	1.00	1.97	1.00
Relaxing and socializing (watching TV, partying, exercising, etc.)	4.17	4.00	3.98	3.50	3.82	3.00	3.59	3.00	3.57	3.00	3.51	3.00
Providing care for dependents living with you (parents, children, spouse, etc.)	1.45	1.00	1.36	1.00	1.26	1.00	2.10	1.00	2.16	1.00	2.13	1.00
Commuting to class (driving, walking, etc.)			2.12	2.00	2.04	2.00			2.44	2.00	2.55	2.00

\* Response categories: 1 = 0 hours/week; 2 = 1 - 5 hours/week; 3 = 6 - 10 hours/week; 4 = 11 - 15 hours/week; 5 = 16 - 20 hours/week; 6 = 21 - 25 hours/week;

7 = 26 - 30 hours/week; 8 = More than 30 hours/week

Source: National Survey of Student Engagement (2001, 2004, 2005)

		% Resp	oonding ''Very I	Much" or "Qui	te a Bit''	
		<b>First-Years</b>			Seniors	
	2001	2004	2005	2001	2004	2005
Fhinking critically & analytically	75%	78%	78%	82%	84%	83%
Acquiring a broad general education	78%	78%	79%	77%	77%	81%
Learning effectively on your own	71%	72%	61%	76%	72%	70%
Working effectively with others	54%	53%	58%	66%	65%	68%
Writing clearly & effectively	51%	57%	53%	57%	63%	68%
Using computing & information technology	61%	62%	69%	66%	75%	74%
Acquiring job or work-related knowledge & skills	44%	49%	54%	61%	61%	62%
Speaking clearly & effectively	33%	41%	39%	54%	55%	60%
Understanding yourself	55%	53%	49%	62%	59%	57%
Analyzing quantitative problems	52%	66%	65%	60%	63%	70%
Developing a personal code of values & ethics	47%	43%	43%	45%	45%	48%
Solving real world problems		45%	42%		51%	54%
Understanding people of other racial & ethnic backgrounds	56%	56%	55%	58%	62%	57%
Contributing to the welfare of your community	32%	31%	35%	28%	34%	35%
Developing a deepened sense of spirituality		20%	17%		16%	19%
Voting in local, state, or national elections	13%	24%	35%	14%	17%	33%

Table 11. Trends in Educational and Personal Growth of UMBC First-year and Senior-level Students

Source: National Survey of Student Engagement (2001, 2004, 2005)

	Respondents, Non-respondents, and Population           NSSE 2001         NSSE 2004						NSSE 2005			
	Respondents	Non-respondent	Total	Respondents	Non-respondent	Total	Respondents	Non-respondent	Total	
Response rate										
Total	39%	61%	1,300	38%	62%	2,266	38%	62%	2,193	
First-Year	39%	61%	650	41%	59%	1,325	36%	64%	1,253	
Senior	39%	61%	650	35%	65%	941	41%	59%	940	
First-Year Students										
Gender										
Male	41%	61%	53%	44%	64%	56%	49%	66%	60%	
Female	59%	39%	47%	56%	36%	44%	51%	34%	40%	
Race/Ethnicity										
African-Amer	12%	13%	12%	11%	10%	10%	10%	10%	10%	
Amer Indian	0%	0%	0%	0%	0%	0%	0%	1%	0%	
Asian-Amer	16%	20%	19%	20%	23%	22%	16%	23%	21%	
Hispanic	3%	2%	3%	4%	3%	3%	3%	3%	3%	
Caucasian	65%	59%	61%	60%	61%	60%	68%	60%	63%	
Foreign	2%	4%	3%	4%	1%	2%	2%	3%	3%	
Unknown	2%	1%	2%	1%	2%	2%	1%	1%	1%	
Major Disc Area										
Arts & Hum	11%	9%	10%	6%	6%	6%	11%	6%	8%	
Social Sciences	10%	11%	11%	16%	16%	16%	17%	17%	17%	
Engr/CMSC/IS	24%	31%	28%	27%	28%	28%	25%	27%	26%	
Math/Sciences	21%	11%	15%	21%	15%	18%	17%	13%	15%	
Undec/Other	34%	38%	36%	30%	34%	33%	31%	37%	35%	
Enrollment Status										
Full-time	99%	98%	99%	96%	97%	97%	99%	99%	99%	
Part-time	1%	2%	1%	4%	3%	3%	1%	1%	1%	
Avg Cum GPA	3.060	2.435	2.679	3.013	2.622	2.780	3.013	2.678	2.799	
SAT (avg)	1228	1160	1187	1212	1199	1204	1247	1212	1225	
<1000	3%	4%	4%	0%	1%	1%	0%	2%	1%	
1001-1100	15%	28%	23%	12%	18%	16%	12%	17%	15%	
1101-1200	26%	36%	32%	31%	33%	32%	28%	34%	32%	
1201-1300	26%	18%	21%	24%	25%	25%	26%	23%	24%	
1301+	28%	11%	18%	30%	22%	25%	30%	23%	26%	
Unknown	2%	3%	2%	2%	1%	1%	2%	1%	1%	
Dorm	76%	60%	67%	74%	73%	74%	78%	74%	76%	
Commuter	24%	40%	33%	26%	27%	26%	22%	26%	24%	

# Table 12. Characteristics of NSSE 2001, 2004, and 2005 Respondents, Non-respondents, and Population

Source: National Survey of Student Engagement (2001, 2004, 2005); Student Information System Prepared by: UMBC OIR, November 2005

	Kespondents, Non-respondents, and Population								
	<b>D</b>	NSSE 2001	<b>T</b> . 1	<b>D</b>	NSSE 2004	<b>m</b> 1		NSSE 2005	
	Respondents	Non-respondent	Total	Respondents	Non-respondent	Total	Respondents	Non-respondent	Total
Response rate									
Total	39%	61%	1,300	38%	62%	2,266	38%	62%	2,193
First-Year	39%	61%	650	41%	59%	1,325	36%	64%	1,253
Senior	39%	61%	650	35%	65%	941	41%	59%	940
Senior-Year Studen	ts								
Gender									
Male	40%	48%	45%	42%	52%	49%	50%	57%	54%
Female	60%	52%	55%	58%	48%	51%	50%	43%	46%
Race/Ethnicity									
African-Amer	14%	17%	16%	14%	20%	18%	13%	12%	12%
Amer Indian	0%	1%	1%	1%	1%	1%	0%	1%	0%
Asian-Amer	16%	17%	17%	12%	18%	16%	16%	21%	19%
Hispanic	5%	3%	4%	4%	3%	3%	4%	4%	4%
Caucasian	61%	58%	59%	63%	53%	56%	61%	57%	59%
Foreign	2%	4%	3%	6%	5%	5%	5%	5%	5%
Unknown	1%	2%	1%	1%	1%	1%	1%	1%	1%
Major Disc Area									
Arts & Hum	19%	16%	17%	19%	18%	18%	17%	16%	16%
Social Sciences	28%	31%	30%	36%	34%	35%	35%	35%	35%
Engr/CMSC/IS	36%	30%	32%	29%	31%	30%	28%	27%	27%
Math/Sciences	14%	14%	14%	14%	16%	15%	15%	16%	15%
Undec/Other	4%	9%	7%	2%	2%	2%	6%	7%	7%
Enrollment Status									
Full-time	86%	75%	80%	88%	80%	83%	88%	86%	87%
Part-time	14%	25%	20%	12%	20%	17%	12%	14%	13%
Avg Cum GPA	3.040	2.856	2.928	3.106	2.917	2.983	3.032	2.900	2.955
Native	51%	38%	43%	45%	43%	44%	46%	45%	46%
Transfer	49%	62%	57%	55%	57%	56%	54%	55%	54%
Dorm	29%	11%	18%	31%	21%	24%	26%	18%	21%
Commuter	71%	89%	82%	69%	79%	76%	74%	82%	79%

# Table 12. Characteristics of NSSE 2001, 2004, and 2005 Respondents, Non-respondents, and Population

Source: National Survey of Student Engagement (2001, 2004, 2005); Student Information System

	<b>Doctoral/ResearchExtensive Peer Participants</b>						
	UMBC	NSSE 2001	NSSE 2004	NSSE 2005			
Total Undergrads <sup>a</sup>	9,668	19,170	19,090	18,512			
% UG FT	84%	86%	85%	86%			
% UG FT African-Amer.	14%	8%	7%	8%			
% UG FT Minority	38%	22%	20%	24%			
Total FT New Freshmen <sup>a</sup>	1,403	3,424	3,399	3,380			
% in top 10% of HS class <sup>b</sup>	30%	37%	31%	34%			
Acceptance rate	70%	67%	72%	69%			
Median SAT	1220	1158	1129	1138			
Graduation rates (1998 cohort)							
4-year <sup>c</sup>	28%	36%	32%	33%			
6-year	55%	63%	61%	62%			
Predicted 6-yr rate (U.S. News) <sup>b</sup>	62%	62%	60%	60%			
% of Classes with: <sup>b</sup>							
<20 students	41%	41%	40%	39%			
50+ students	12%	14%	13%	14%			
Faculty <sup>d</sup>							
# FT	669	1,499	1,490	1,343			
# PT	251	455	453	399			
% Faculty FT	73%	77%	76%	77%			

Table 13. Comparison of UMBC and NSSE-participating Doctoral Research-Extensive Universities (2001, 2004, 2005)

<sup>a</sup> IPEDS Peer Analysis System, Enrollments Fall 2004. Prepared by UMBC OIR, 7/2005.

<sup>b</sup> 2006 U.S. News "America's Best Colleges," reflecting Fall 2004 data. Prepared by UMBC OIR, 8/2005.

<sup>c</sup> IPEDS Peer Analysis System, GRS 2004. Prepared by UMBC OIR, 7/2005.

<sup>d</sup> IPEDS Peer Analysis System, Faculty Staff Fall 2003. Prepared by UMBC OIR, 11/2002.