An Assessment of Undergraduate Retention, Persistence, and Graduation Rates at UMass Boston

Retention Committee
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“NYT Review of “Crossing the Finish Line”

▸ A recent editorial in the New York Times cited UMass Boston as an example of public universities with low graduation rates – using the 33% rate we reported to IPEDS for the Fall 2002 entering cohort

▸ This generated much discussion about graduation rates with OIRP

▸ As a campus, we have been concerned about our graduation rates for many years

▸ The Fall 1994 cohort (reported in Fall 2000) had a rate of 26%
What is ‘the’ graduation rate?

▸ The figure reported each year, by each institution in the country to the federal government is based on cohorts of:

  - First-Time
  - Full-Time
  - Starting in Fall semester

▸ Once in the cohort, we must track students through their enrollment at the institution through 6 academic years

▸ Can be exempted from report by death, missionary service, or military service only

▸ Graduation rate analysis is always focused on the past – things that already happened to the cohort – not on the future
## Freshmen Cohorts & Graduation Rates: Fall 1999 to Fall 2003

<table>
<thead>
<tr>
<th>Entered Fall</th>
<th>Graduated by Fall</th>
<th>Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>2009</td>
<td></td>
</tr>
<tr>
<td>567</td>
<td>219</td>
<td>39%*</td>
</tr>
<tr>
<td>2002</td>
<td>2008</td>
<td>33%</td>
</tr>
<tr>
<td>479</td>
<td>159</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>2007</td>
<td>33%</td>
</tr>
<tr>
<td>619</td>
<td>204</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>2006</td>
<td>36%</td>
</tr>
<tr>
<td>595</td>
<td>212</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>2005</td>
<td>35%</td>
</tr>
<tr>
<td>673</td>
<td>235</td>
<td></td>
</tr>
</tbody>
</table>

*Highest rate reported for UMass Boston*
From now through 2016, every cohort for which we will report a six-year graduation rate has already started at UMass Boston. The six-year graduation rate we will report in the spring of 2016 has already been impacted by the loss of some members of the entering fall 2009 cohort.

<table>
<thead>
<tr>
<th>Future Six-Year Graduation Rate Reporting Dates</th>
<th>Year the Cohort Entered</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010 (Current)</td>
<td>2003</td>
</tr>
<tr>
<td>2011</td>
<td>2004</td>
</tr>
<tr>
<td>2012</td>
<td>2005</td>
</tr>
<tr>
<td>2013</td>
<td>2006</td>
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<tr>
<td>2014</td>
<td>2007</td>
</tr>
<tr>
<td>2015</td>
<td>2008</td>
</tr>
<tr>
<td>2016</td>
<td>2009</td>
</tr>
<tr>
<td>2017</td>
<td>Will Enter Fall 2010</td>
</tr>
</tbody>
</table>
What do we know about our graduation rates at UMass Boston?

▸ We know that our students do not follow the typical patterns of retention and graduation discussed in the classic literature on the topic
▸ We know that retention and persistence patterns are linked to graduation patterns (retention refers to returning for the second year and persistence refers to returning in subsequent years)
▸ Characteristics of students
  ▸ Academic preparation of students
  ▸ Academic programs/majors
  ▸ Student support and participation
Characteristics of Students

- Women graduate at a higher rate than men
  - Women: 42%
  - Men: 34%

- Students graduate at similar rates regardless of race/ethnicity (no significant difference statistically)
  - Asian P/I: 42.9%
  - Black NH CV: 40.5%
  - Hispanic: 38.3%
  - White NH: 36.8%
  - Unknown/Refused: 32.1%
  - International: 56.0%
  - Total: 38.6%
Characteristics of Students cont’d

▸ Students who begin as part-time freshmen are less likely to graduate than those who begin as full time students

▸ About 20% to 25% of incoming cohorts are non-U.S. citizens, either International students or permanent U.S. residents. They tend to have higher retention and graduation rates than the U.S. citizens

▸ In 2006 and 2008, about 45% of CIRP respondents reported that UMass Boston had been their first choice of schools to attend
Academic preparation of students

- **GPA**
  - High School GPA is positively related to Retention and Graduation
  - BUT high GPA students & low GPA students are more likely to leave before graduation than students with mid-range GPA

- **SAT**
  - Math SAT scores are not significantly related to Retention or Graduation
  - Verbal SAT scores are not related to Graduation, but are often negatively related to retention
    - Immigrant or Non-Native English Speaking Proxy
      - Similar findings on national level
We wanted to find out was significantly related to graduating within 6 years for the fall 2003 cohort.

- We constructed a statistical model that accounted for
  - High School GPA
  - Math SAT score
  - Verbal SAT score
  - Gender
  - Race/Ethnicity
  - U.S. Citizenship
  - College entered
  - DSP participation
  - DSP and SSS participation
  - Developmental English class in the first semester
  - Developmental Mathematics class in the first semester
  - ESL classes in the first semester
What was significantly related to graduating within 6 years for the fall 2003 cohort?

- Four things were related to graduating within 6 years, all positively
  - High School GPA
  - DSP and SSS participation
  - Entering the College of Nursing
  - Entering the College of Management
- Nothing else was significantly related to graduating in 6 years
  - Not SAT scores
  - Not Gender
  - Not Race/Ethnicity
  - Not U.S. citizenship
  - Not DSP alone
  - Not Developmental coursework in the first semester
  - Not ESL coursework in the first semester
We asked if the same things held for retention to the second year for recent first-time full-time students.

- We constructed a statistical model for the fall 2008 cohort that accounted for:
  - High School GPA
  - Math SAT score
  - Verbal SAT score
  - Gender
  - Race/Ethnicity
  - Age
  - U.S. Citizenship
  - College entered
  - DSP participation
  - DSP and SSS participation
We found a couple of differences and two strong similarities in the positive.

- Four things were related to returning for the second year, all positively
  - High School GPA
  - DSP and SSS participation
  - Being Black non-Hispanic or Cape Verdean
  - Refusing to self-identify with a race/ethnicity

- Nothing else was significantly related to retention to the second year
  - Not SAT scores
  - Not Gender
  - Not Age
  - Not College entered
  - Not U.S. citizenship
  - Not DSP alone
Student Support and Participation

- National Survey of Student Engagement (NSSE)
  - Indicates our students have behaviors that adversely affect retention and graduation
    - Work Hours
    - Family Responsibilities
    - Limited time on campus or in co-curricular activities
    - No on-campus residence life
- Participation in student life/government/clubs – need to assess effect on graduation rates
- Participation in Athletics – NCAA will be requiring graduation reporting. OIRP will work with Athletics on this
What do we know about transfer student retention and progress towards the degree?

- Transfer student retention, persistence, and graduation rates do not get reported to the Department of Education so there has been little incentive to study them.
- The Consortium for Student Retention Data Exchange (CSRDE) collects information on FT/FT progress towards the degree and is now collecting the same information for community college transfers who enter the four-year school with 30 or more credits.
- This year we are also preparing the CSRDE community college transfer survey and we expect to receive comparison data.
Demographically, transfer students are similar to first time students. In Fall 2008 1,614 new transfer students entered UMass Boston. About 40% of the known race U.S. residents were minorities.
Overall, they had a retention rate similar to first time students, and rates were similar across racial/ethnic groups. 77.5% of the fall 2008 transfer students graduated or returned to UMass Boston in fall 2009.
Retention and persistence patterns have been changing. Students entering with 60 to 89 credits have become most likely to persist over the 2\textsuperscript{nd}, 3\textsuperscript{rd}, and 4\textsuperscript{th} years.
Tracked over a longer term, upper division transfers are more likely to persist and graduate. Of the more than 1,200 entering transfers in fall 2004, only 72 were still enrolled in fall 2009. By the end of the 5th year, most transfers have graduated or moved on.
What was significantly related to success for transfers?

- We constructed a statistical model for the fall 2006 cohort that accounted for:
  - Transfer credits
  - Transfer GPA
  - Gender
  - Race/Ethnicity
  - Age
  - U.S. Citizenship
  - College entered
  - Whether the student was from a community college or a four-year school
  - High school GPA for students who submitted it
  - SAT scores for students who submitted them
There were four variables that influenced whether a transfer student who entered in fall 2006 either had graduated or was still enrolled in fall 2009.

- Three things were positively related to returning for the second year
  - The number of transfer credits
  - Entering CNHS
  - Being an immigrant or international student
- Entering CSM was negatively related to success
- Nothing else was significantly related to success
  - Not Transfer GPA
  - Not Age
  - Not Gender
  - Not Race/Ethnicity
  - Not community college background
  - Not H.S. GPA or SAT scores if submitted
Six-year graduation rates have improved somewhat for transfers and first-year students. Almost half of the fall 2003 incoming transfers graduated by fall 2009. 41% graduated within four years of entering UMass Boston. The 2004 cohort is ahead of that rate.
Conclusions

▸ We know that UMass Boston has a relatively low retention and graduation rate for first-time students, but we do not know how we compare on transfers. There is no national or peer comparison data.

▸ We know that we are unusual in that everyone is pretty much the same as far as retention, persistence, and graduation rates.
  ▸ Few small differences by race/ethnicity.
  ▸ Differences by gender, disappearing in recent years.

▸ SAT scores have no predictive value here.

▸ H.S. GPA is a good predictor of success, but transfer GPA is not statistically related to success.

▸ The more credits a transfer students brings in, the more likely that student is to persist to graduation, but the data are a little suspect. Continued.
Conclusions

▸ We do not know what most affects retention, persistence, and graduation.
▸ We need to tie financial aid information to the student’s persistence behavior.
▸ We need more assessment in the area of student engagement with the university and to be able to document that engagement and tie it to the student’s record
  ▸ Athletics
  ▸ On-Campus employment
  ▸ Student Life.
  ▸ What else?

Thank You