**The Second Year Retention of Fall 2013 First-time Full-Time Freshmen**

In fall 2013, 1,313 first-time full-time freshmen entered UMass Boston. This was an increase of 141 over the size of the fall 2012 cohort and was UMass Boston’s largest first-time full-time freshman cohort ever. Of these 1,313 students, 1,196 continued to spring 2014 for a return rate of 91.1% which was slightly below the spring return rate for the fall 2012 cohort. Of the 1,313 freshmen, 1,046 returned for fall 2014. This is a retention rate of 79.7% which is 2.2 percentage points higher than that of the 2012 cohort. This 79.7% rate will be reported by the Integrated Postsecondary Data System (IPEDS) as 80% and is the highest rate for any UMass Boston cohort. The previous high was for the 2011 cohort with a rate of 78.8%.

**Some Highlights**

* The 216 Boston Public Schools graduates were more likely to return than other students at 85.6% to 78.5%. The difference was statistically significant.
* The 234 participants in the Directions for Student Potential program returned at a rate of 85.5% compared to 78.4% for others. The difference was statistically significant. However, the 104 students who participated only in DSP without Student Support Services returned at a rate of 77.9%.
* The 140 participants in Student Support Services were significantly more likely to return at 91.4% compared to 78.3% for others. Of those 130 had also participated in DSP.
* Of 90 Navitas students in the cohort, 70 returned for a rate of 77.8%. This was not significantly different from the rate for other students.
* Of the 22 Massachusetts International Academy students (MAIA), 20 returned for a rate of 90.9%. This was not significantly different from the rate for other students.
* The 37 students who entered through the Transitions program returned at a rate of 94.6% compared to 79.2% for other freshmen. The difference was statistically significant.
* Among U.S. residents, the 562 Pell Grant recipients had a return rate of 85.2% compared to 74.0% for the 558 non-Pell U.S. residents. The difference was statistically significant.
* With a return rate of 82.5%, the 246 participants in the College of Science and Mathematics’ Freshman Success Communities (FSC) were about 3.5 percentage points more likely to return than all other students and 0.5 percentage points more likely than 290 other CSM entrants. Neither of the differences was statistically significant.
* The 86 participants in the College of Liberal Arts’ CLA 1st program returned at a rate of 76.7% compared to 79.9% for all other freshmen and 77.7% for the other 435 CLA freshmen. The differences were not statistically significant.
* At 93.5%, the 31 participants in the College of Management’s Management LEAD program returned at higher rate than all other freshmen at 79.3%, and they returned at higher rates than other the other 115 College of Management freshmen who returned at a rate of 80.0%. Both differences were narrowly outside of statistical significance.
* In the Honors Program, 81 of 91 students returned for a rate of 89.0% compared to 79.0% for other students. The difference was statistically significant.
* High school GPA was positively and significantly associated with returning.
* Neither Mathematics nor Critical Reading (Verbal) SAT scores were associated with retention at a statistically significant level.
* There were five veterans identified in the cohort. Four of them returned for a rate of 80%. This is too small a group for a reasonable significance test.
* Among U.S. residents, the 213 immigrants were significantly more likely to return than the 907 U.S. born residents at 88.7% to 77.5%.
* Among students who completed the incoming freshman survey during orientation, the 531 who reported speaking a language other than English at home or with family were more likely to return at 85.9% compared to 73.6% for the other 493 respondents. The difference was statistically significant.
* Among students who completed the incoming freshman survey during orientation, the 571 who identified as first generation (neither parent/guardian completed a bachelor’s degree) returned at a rate of 81.3% compared to 78.5% for the other 451 survey respondents. The difference was not statistically significant.
* Men were less likely to return than women at 77.7% compared to 81.5%, but the difference was not statistically significant.
* The 213 students who had at least one course withdrawal in the first semester were significantly less likely to return that those who did not have a withdrawal (66.7% to 82.2%).
* The 260 students who had at least one course failure in the first semester were significantly less likely to return that those who did not have a failure (66.2% to 83.0%).

**Race/Ethnicity and Gender**

Among students who self-identified a single racial/ethnic group, Asians and Black/African Americans had the highest return rates and White non-Hispanics had the lowest. No student identified as solely Native American or Hawaiian/Pacific Islander. The details are presented in Table 1.

**Table 1: Retention by Race/Ethnicity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Race/Ethnicity** | **Number Entering Fall 2013** | **Number Returning Fall 2014** | **Retention Rate** |
| Asian | 226 | 198 | 87.6% |
| Black/African American | 166 | 144 | 86.7% |
| Hispanic/Latino | 175 | 139 | 79.4% |
| Non Resident Alien | 183 | 147 | 80.3% |
| Not Specified | 72 | 57 | 79.2% |
| Two or more races | 33 | 24 | 72.7% |
| White | 458 | 337 | 73.6% |
| **Total** | **1,313** | **1,046** | **79.7%** |

Women were slightly more likely to return than men at 81.5% compared to 77.7%, but the difference was not significant. The rate for men was 1.9 points higher than for the 2012 cohort, and the rate for women was up 2.6 points. In 2013, there was one student who did not select a gender.

Within race/ethnicity, women tended to return at higher rates than men except for Hispanics and those who selected two or more races. Only the difference for those who did not specify a race was statistically significant. Table 2 presents the details.

**Table 2: Retention by Gender within Race/Ethnicity**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Race/Ethnicity** | **Women's Rate** | **Men's Rate** | **Difference** | **Significance** |
| Asian | 88.9% | 86.2% | 2.7% | No |
| Black/African American | 90.6% | 81.4% | 9.2% | No |
| Hispanic/Latino | 79.4% | 79.5% | -0.1% | No |
| Non Resident Alien | 82.8% | 79.0% | 3.7% | No |
| Not Specified | 88.9% | 69.4% | 19.4% | P<.05 |
| Two or more races | 66.7% | 77.8% | -11.1% | No |
| White | 75.0% | 71.8% | 3.2% | No |
| **Total** | **81.5%** | **77.7%** | **3.8%** | **No** |

**College or Program**

The differences between colleges were not statistically significant. Within CNHS, the 21 percentage point difference between the two programs was significant. Table 3 presents the details.

**Table 3: Retention by College**

|  |  |  |  |
| --- | --- | --- | --- |
| **College** | **Number Entering** | **Number Returning** | **Retention Rate** |
| CPCSU | 2 | 2 | 100.0% |
| CSM-U | 532 | 436 | 82.0% |
| CEHD | 20 | 12 | 60.0% |
| CLA-U | 521 | 404 | 77.5% |
| MGT-U | 146 | 121 | 82.9% |
| CNHS | 92 | 71 | 77.2% |
| **Total** | **1,313** | **1,046** | **79.7%** |
|  |  |  |  |
| **Within CNHS** | **Number Entering** | **Number Returning** | **Retention Rate** |
| Exercise & Health Sciences | 59 | 41 | 69.5% |
| Nursing (BS) | 33 | 30 | 90.9% |
| **Sub-Total CNHS** | **92** | **71** | **77.2%** |

**Entry Major**

While students will often change majors and many come in undecided about a major, there has been some interest in retention by major. Table 4 presents the details of retention by entry major. A student is counted as retained if he or she returns in any major. In CLA and CSM, students who were undecided about a major returned at rates that were similar to rates for their colleges as a whole.

**Table 4: Retention by Entry Major within College**

|  |  |  |  |
| --- | --- | --- | --- |
| **College of Education and Human Development** | **Number Entering** | **Number Returning**  | **Retention Rate** |
| Early Educ. & Care  | 20 | 12 | 60.0% |
| **CEHD Subtotal** | **20** | **12** | **60.0%** |
|  |  |  |  |
| **College of Public and Community Service** | **Number Entering** | **Number Returning**  | **Retention Rate** |
| Human Services (BA) | 2 | 2 | 100.0% |
| **CPCS Subtotal** | **2** | **2** | **100.0%** |

Continued

**Table 4: Retention by Entry Major within College, continued**

|  |  |  |  |
| --- | --- | --- | --- |
| **College of Liberal Arts** | **Number Entering** | **Number Returning**  | **Retention Rate** |
| Anthropology (BA) | 2 | 2 | 100.0% |
| Art (BA) | 14 | 12 | 85.7% |
| Asian Studies (BA) | 4 | 4 | 100.0% |
| Communication | 28 | 23 | 82.1% |
| Criminal Justice (BA) | 33 | 23 | 69.7% |
| Economics (BA) | 44 | 37 | 84.1% |
| English (BA) | 15 | 12 | 80.0% |
| Ethics, Soc, and Pol. Philosophy | 2 | 1 | 50.0% |
| History (BA) | 12 | 6 | 50.0% |
| History and Archaeology | 6 | 4 | 66.7% |
| Italian (BA) | 2 | 1 | 50.0% |
| Music (BA) | 15 | 12 | 80.0% |
| Philosophy & Public Policy | 1 | 1 | 100.0% |
| Political Science (BA) | 27 | 22 | 81.5% |
| Psychology (BA) | 55 | 40 | 72.7% |
| Psychology (BS) | 30 | 27 | 90.0% |
| Psychology/Sociology | 16 | 13 | 81.3% |
| Sociology (BA) | 12 | 9 | 75.0% |
| Spanish (BA) | 4 | 3 | 75.0% |
| Theatre Arts (BA) | 8 | 5 | 62.5% |
| Undecided - Liberal Arts | 189 | 145 | 76.7% |
| Women's Studies (BA) | 2 | 2 | 100.0% |
| **CLA Subtotal** | **521** | **404** | **77.5%** |
|  |  |  |  |
| **College of Science and Mathematics** | **Number Entering** | **Number Returning**  | **Retention Rate** |
| Biochemistry (BS) | 37 | 32 | 86.5% |
| Biology (BS) | 179 | 152 | 84.9% |
| Chemistry (BA) | 1 | 1 | 100.0% |
| Chemistry (BS) | 15 | 13 | 86.7% |
| Computer Engineering | 5 | 3 | 60.0% |
| Computer Science (BA) | 15 | 12 | 80.0% |
| Computer Science (BS) | 50 | 39 | 78.0% |
| Electrical Engineering | 3 | 2 | 66.7% |
| Engineering (Major) | 3 | 2 | 66.7% |
| Engineering Physics (BS) | 16 | 11 | 68.8% |
| Environmental Science (BA) | 5 | 4 | 80.0% |
| Environmental Science (BS) | 15 | 14 | 93.3% |

Continued

**Table 4: Retention by Entry Major within College, continued**

|  |  |  |  |
| --- | --- | --- | --- |
| **College of Science and Mathematics** | **Number Entering** | **Number Returning**  | **Retention Rate** |
| Information Technology | 8 | 7 | 87.5% |
| Mathematics (BA) | 8 | 7 | 87.5% |
| Mathematics (BS) | 11 | 10 | 90.9% |
| Physics (BA) | 1 | 1 | 100.0% |
| Physics (BS) | 7 | 6 | 85.7% |
| Undecided - Science & Mathematics | 153 | 120 | 78.4% |
| **CSM Subtotal** | **532** | **436** | **82.0%** |
|  |  |  |  |
| **College of Management** | **Number Entering** | **Number Returning**  | **Retention Rate** |
| Information Technology | 6 | 6 | 100.0% |
| Management (BS) | 140 | 115 | 82.1% |
| **MGT Subtotal** | **146** | **121** | **82.9%** |
|  |  |  |  |
| **College of Nursing and Health Sciences** | **Number Entering** | **Number Returning**  | **Retention Rate** |
| Exercise & Health Sciences | 59 | 41 | 69.5% |
| Nursing (BS) | 33 | 30 | 90.9% |
| **Total** | **92** | **71** | **77.2%** |

**High School**

Several local high schools send large numbers of freshmen to UMass Boston. Among high schools that sent at least eight students into the 2013 cohort, Arlington High School, Brighton High School, and Excel High School all had 100% of their freshmen return for the second year. The numbers of students originally enrolled, numbers returned and retention rates for all of the local high schools that sent eight or more freshmen into the cohort are presented in Table 5. They are sorted by number of students who entered and by retention rate.

**Table 5: Retention by High School Attended**

|  |  |  |  |
| --- | --- | --- | --- |
| **High School**  | **Number Entering** | **Number Returning** | **Retention Rate** |
| Quincy High School | 33 | 32 | 97.0% |
| Boston Latin Academy | 32 | 28 | 87.5% |
| John D. O’ Bryant High School | 29 | 27 | 93.1% |
| Brockton High School | 29 | 25 | 86.2% |
| Somerville High School | 27 | 20 | 74.1% |
| Braintree High School | 25 | 22 | 88.0% |
| Weymouth High School | 24 | 21 | 87.5% |

Continued

**Table 5: Retention by High School Attended, continued**

|  |  |  |  |
| --- | --- | --- | --- |
| **High School**  | **Number Entering** | **Number Returning** | **Retention Rate** |
| Malden High School | 23 | 21 | 91.3% |
| Everett High School | 22 | 19 | 86.4% |
| Revere High School | 20 | 15 | 75.0% |
| North Quincy High School | 18 | 10 | 55.6% |
| Cambridge Rindge & Latin | 17 | 13 | 76.5% |
| Boston Latin School | 17 | 12 | 70.6% |
| Newton North High School | 16 | 15 | 93.8% |
| East Boston High School | 14 | 13 | 92.9% |
| Medford High School | 14 | 12 | 85.7% |
| Brookline High School | 13 | 12 | 92.3% |
| Charlestown High School | 13 | 11 | 84.6% |
| Dedham High School | 13 | 10 | 76.9% |
| Chelsea High School | 13 | 9 | 69.2% |
| Melrose High School | 12 | 10 | 83.3% |
| Milton High School | 12 | 9 | 75.0% |
| Excel High School | 11 | 11 | 100.0% |
| Fenway High School | 10 | 9 | 90.0% |
| Randolph High School | 10 | 9 | 90.0% |
| Watertown High School | 10 | 9 | 90.0% |
| Northeast Metro Tech | 10 | 8 | 80.0% |
| Techboston Academy | 10 | 8 | 80.0% |
| New Mission High School | 10 | 6 | 60.0% |
| Josiah Quincy Upper School | 9 | 8 | 88.9% |
| Boston Com Leadership | 9 | 7 | 77.8% |
| Waltham Senior High School | 9 | 7 | 77.8% |
| Arlington High School | 8 | 8 | 100.0% |
| Brighton High School | 8 | 8 | 100.0% |
| Archbishop Williams High School | 8 | 7 | 87.5% |
| Belmont High School | 8 | 6 | 75.0% |

**Multivariate Models**

We tested several multivariate models that included demographic characteristics, high school GPAs, SAT scores, DSP and SSS participation, participation in the various learning communities, and entry through Navitas, the Transitions Program, and the Massachusetts International Academy (MAIA).

Including the SAT scores caused most of the international students to be dropped because the majority had not submitted SAT scores, so we ran several models with SAT scores and others without them.

The only significant factor in every model we ran was being Black/African American, which was positively associated with retention.

In most of the models, being Asian, participation in Students Support Services, participation in the Honors program, and speaking a language other than English at home or with family were significantly and positively related to retention.

There were no characteristics that were significantly negatively related to retention.

A preliminary six-year graduation rate for the fall 2008 cohorts should be available in early November after all of the August 2014 graduates have been added.