**8.1 [CR]**

**Student Achievement**

The institution identifies, evaluates, and publishes goals and outcomes for student achievement appropriate to the institution’s mission, the nature of the students it serves, and the kinds of programs offered. The institution uses multiple measures to document student success.

**√** Compliance Non-Compliance

**Narrative**The University of Texas Health Science Center at Houston (UTHealth) evaluates success with respect to student achievement consistent with its mission, which is to prepare healthcare professionals in order to advance the quality of human life by enhancing the diagnosis, treatment, and prevention of disease and injury. The Deans of each of UTHealth’s six schools are responsible for establishing and evaluating student success criteria (program outcomes) specific to approved degree or certificate programs, by location and/or mode of delivery as appropriate, and disaggregated to the extent data are available. Program outcomes and processes by which schools review student achievement data are indicated with a check mark in Table 8.1.1 below, described more fully in the school narratives, and published on the UTHealth Student Achievement web site [**1**].

**Table 8.1.1.** UTHealth Student Achievement Data Categories

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  | **Completion Rate** | **Retention** | **Job Placement** | **Course Completion** | **Licensure** |
| **School of Biomedical Informatics** | | |  |  |  |  |
|  | M.S. | **** | **** | **** |  |  |
|  | Ph.D. | **** | **** | **** |  |  |
|  | D.H.I. |  | **** |  |  |  |
| **School of Dentistry** | |  |  |  |  |  |
|  | Dental Hygiene | **** |  |  |  | **** |
|  | D.D.S. | **** |  | **** |  | **** |
|  | M.S.D./PGCRT | **** |  |  |  |  |
| **Graduate School of Biomedical Sciences** | | |  |  |  |  |
|  | M.S. - Biomedical Sciences | **** |  |  | **** |  |
|  | M.S. - Genetic Counseling | **** |  |  | **** | **** |
|  | M.S. - Medical Physics | **** |  | **** | **** |  |
|  | Ph.D. | **** |  | **** | **** |  |
| **McGovern Medical School** | |  |  |  |  |  |
|  | M.S. | **** |  |  |  |  |
|  | M.D. | **** | **** | **** |  | **** |
| **Cizik School of Nursing** | |  |  |  |  |  |
|  | B.S.N. | **** |  | **** |  | **** |
|  | M.S.N. | **** |  | **** |  | **** |
|  | D.N.P. | **** |  | **** |  |  |
|  | Ph.D. | **** |  | **** |  |  |
| **School of Public Health** | |  |  |  |  |  |
|  | M.P.H. | **** |  | **** |  |  |
|  | M.S. | **** |  | **** |  |  |
|  | Dr.PH. | **** |  | **** |  |  |
|  | Ph.D. | **** |  | **** |  |  |

UTHealth has two upper level undergraduate programs, in Dental Hygiene and Nursing. Since neither program admits first-time, full-time freshmen, the IPEDS Outcomes Measures survey – which looks at award status after 4-years, 6-years and 8-years -- is the only applicable standardized report related to graduation/completion rates. Neither the School of Dentistry nor the School of Nursing use this report in their analysis, as their expected time to graduation is 100% (B.S.DH.) and 150% time (B.S.N.), respectively. The 2019 IPEDS Outcomes Survey included data for the cohort entering 201-2012, which is too old to be of practical use to either program [**2**]. Completion data in the SOD and CSON tables below take expected times to graduation into account when analyzing undergraduate achievement.

**School of Biomedical Informatics**

The School of Biomedical Informatics (SBMI) currently monitors student achievement utilizing retention and graduation rates, as well as job placement. The SBMI Office of the Associate Dean for Academic and Curricular Affairs, Academic Program Coordinators, Director of Student Affairs, the Curriculum Committee, and the Admission, Progression and Graduation Committee are involved in monitoring and evaluating student success throughout their programs of study. The Academic Coordinators review student records to identify individual student progression through the programs of study, the filing of degree plans, as well as student drops, incomplete grades, and failure to continue to register for courses. The Admissions, Progression and Graduation Committee also monitors the progression of students through the program.

In accordance with Texas Higher Education Coordinating Board definitions, the graduation rate for the School of Biomedical Informatics was determined using a 5-year completion rate for the Masters Programs and a 10-year completion rate for the Ph.D. and Doctorate of Health Informatics (D.H.I.) programs.

The overall SBMI student retention rates for the three most recently completed academic years are 95, 95, and 93 percent respectively, across all degree programs, as shown in Tables 8.1.2, 8.1.3, and 8.1.4, as well as Figure 8.1.1 below. Thus, SBMI is meeting its target retention rate of 90 percent, with the exception of the D.H.I. program in AY 2021. This program was new in AY 2020. One student withdrew at the end of the first year. In AY 2021, two students from the second cohort withdrew, one for family health reasons and one for personal reasons. Two students from the first cohort failed to successfully complete the Qualifying Exam and were dismissed from the program. Even though the threshold for corrective action was not met, the program faculty have taken steps to increase student success and retention. The target was set at 90 percent because our data clearly shows we have a high retention rate. School leadership will take corrective actions should any retention rate drop below the threshold of 80 percent.

**Program Retention Rates**

**Table 8.1.2.** SBMI Program Retention Rates AY 2017 (9/1/16-8/31/17)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic Program** | **Total # of Students** | **Discontinued/Dismissed Students** | **Retention Rate** | **Target** | **Threshold** |
| Master | 50 | 3 | 94% | 90% | 80% |
| Master online | 115 | 4 | 97% | 90% | 80% |
| Ph.D. | 27 | 2 | 93% | 90% | 80% |
| **Totals** | 192 | 5 | 97% | 90% | 80% |

**Table 8.1.3.** SBMI Program Retention Rates AY 2018 (9/1/17-8/31/18)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic Program** | **Total # of Students** | **Discontinued/**  **Dismissed Students** | **Retention Rate** | **Target** | **Threshold** |
| Master | 42 | 3 | 93% | 90% | 80% |
| Master online | 130 | 5 | 96% | 90% | 80% |
| Ph.D. | 25 | 2 | 92% | 90% | 80% |
| **Totals** | 197 | 6 | 97% | 90% | 80% |

**Table 8.1.4.** SBMI Program Retention Rates AY 2019 (9/1/18-8/31/19)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic Program** | **Total # of Students** | **Discontinued/**  **Dismissed Students** | **Retention Rate** | **Target** | **Threshold** |
| Master | 38 | 2 | 95% | 90% | 80% |
| Master online | 135 | 12 | 91% | 90% | 80% |
| Ph.D. | 27 | 1 | 96% | 90% | 80% |
| **Totals** | 197 | 6 | 97% | 90% | 80% |

**Table 8.1.5** SBMI Program Retention Rates AY 2020 (9/1/19-8/31/20)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic Program** | **Total # of Students** | **Discontinued/**  **Dismissed Students** | **Retention Rate** | **Target** | **Threshold** |
| Master | 34 | 0 | 100% | 90% | 80% |
| Master online | 156 | 2 | 99% | 90% | 80% |
| Ph.D. | 35 | 1 | 97% | 90% | 80% |
| D.H.I. | 11 | 1 | 91% | 90% | 80% |
| **Totals** | 225 | 3 | 99% | 90% | 80% |

**Table 8.1.6** SBMI Program Retention Rates AY 2021 (9/1/20-8/31/21)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic Program** | **Total # of Students** | **Discontinued/**  **Dismissed Students** | **Retention Rate** | **Target** | **Threshold** |
| Master | 23 | 2 | 91% | 90% | 80% |
| Master online | 239 | 8 | 97% | 90% | 80% |
| Ph.D. | 49 | 2 | 96% | 90% | 80% |
| D.H.I. | 26 | 1 | 96% | 90% | 80% |
| **Totals** | 311 | 12 | 96% | 90% | 80% |

**Figure 8.1.1.** SBMI Overall Program Retention Rates (AY 17 – AY 21)

**SBMI M.S. Program**

The SBMI master’s program is offered face-to-face on campus or entirely online, as a full-time student or as a part-time student. The master’s program is primarily delivered (>70% of students) in the online environment to part-time students. For example, in Fall 2018, of the 122 enrolled master’s students, 98 (80.3%) were taking courses part-time. In Fall 2019, of the 132 enrolled master’s students, 106 (80.3%) were taking courses part-time. This trend continued in Fall 2020 and Fall 2021. This is expected given the move to online education during the COVID pandemic. Additionally, 52.5 percent of SBMI entering students already possess either a graduate degree or a professional (MD, PharmD, etc.) degree, with many employed full-time while pursuing additional SBMI education to enhance their careers. When reviewing the retention and graduation rates below, please note that the retention rates are calculated year over year, using the total number of master’s students enrolled as the denominator and those who discontinued or were dismissed as the numerator. The graduation rate is calculated using the number of students who matriculated in a given academic year as the denominator and those who have graduated as a numerator. However, given the large percentage of part-time students, some of whom only take a single course per semester, SBMI cannot view a graduation rate as complete until the full 5-year timeframe has passed. It should also be noted that master’s students can study for up to 8 years as a part-time SBMI student.

**M.S. Retention Rates by Gender**

The SBMI master’s retention rates by gender meet the SBMI target rate, with the exception of the male retention rate for AY 2019, as seen in Table 8.1.5 and Figure 8.1.2 below. The retention rate for female students remains very high, above 95 percent for the most recent three years. The 5 percent drop from AY 2018 to AY 2019 for the male students was unexpected, but it could be due to a change in the academic policies where a single F earned in a course now results in dismissal from SBMI. Prior to Fall 2018 the policy allowed 3 F’s before the student was dismissed. The retention rate by gender for each academic year will continue to be monitored. The rate rose again in AY 2020 and AY 2021.

**Table 8.1.5.** SBMI M.S. Retention Rates by Gender (AY 17 – AY 21)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Acad Year** | **Total # Female Students** | **Discontinued/Dismissed** | **Female Retention Rate** | **Total # Male Students** | **Discon-tinued/ Dismissed** | **Male Retention Rate** | **Target** | **Threshold** |
| **2017** | 92 | 3 | 97% | 73 | 4 | 95% | 90% | 80% |
| **2018** | 98 | 3 | 97% | 74 | 5 | 93% | 90% | 80% |
| **2019** | 92 | 4 | 96% | 81 | 10 | 88% | 90% | 80% |
| **2020** | 106 | 1 | 99% | 84 | 1 | 99% | 90% | 80% |
| **2021** | 152 | 6 | 96% | 110 | 4 | 96% | 90% | 80% |

**Figure 8.1.2.** SBMI M.S. Retention Rates by Gender (AY 17 – AY 21)

**SBMI M.S. Retention Rates by Race and Ethnicity**

The breakout of SBMI retention rates by race and ethnicity are found in Table 8.1.6 and Figure 8.1.3. The retention rates are above the 90 percent threshold in all but AY 2021 for blacks. In AY 2019, the retention rate for Whites was at the target rate of 90 percent; however, the rate was 100% in AY 2020. SBMI will continue to monitor retention rates by race and ethnicity.

**Table 8.1.6.** SBMI M.S. Retention Rates by Race and Ethnicity (AY 17 – AY 21)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Acad**  **Year** | **American Indian** | **Asian** | **Black** | **Hispanic** | **Multi** | **Not Specified** | **Pacific Islander** | **White** | **Target** | **Threshold** |
| 2017 | 100% | 97% | 93% | 96% | 100% | 96% | 100% | 95% | 90% | 80% |
| 2018 | 100% | 92% | 95% | 100% | 100% | 93% | 100% | 98% | 90% | 80% |
| 2019 |  | 93% | 95% | 91% | 100% | 91% | 100% | 90% | 90% | 80% |
| 2020 |  | 100% | 95% | 96% | 100% | 100% | 100% | 100% | 90% | 80% |
| 2021 | 100% | 98% | 88% | 100% | 100% | 98% |  | 93% | 90% | 80% |

**Figure 8.1.3.** SBMI M.S. Retention Rates by Race and Ethnicity (AY 17 – AY 21)

**SBMI M.S. Graduation Rates**

In accordance with Texas Higher Education Coordinating Board definitions, the graduation rate for the School of Biomedical Informatics was determined using a 5-year completion rate for the master’s programs. Because of the 5-year timeframe, additional years of data are shown. SBMI has set a target rate of graduating 70 percent of SBMI master’s enrollees within five years. The threshold requiring corrective action for the master’s program graduation rate is 60 percent. The overall 5-year graduation rate can be seen in Table 8.1.7 and Figure 8.1.4. In AY 2014, 2016 and 2017, the target was met, while it was not met for AY 2015, and the year 2018 and more recent. The rates for 2015 and 2018 do not meet the threshold for corrective action. It should be noted that the student profile for the SBMI master’s student is skewed to adults returning to school for additional education, while many have a full-time job and family. Additionally, Texas endured Hurricane Harvey in Fall 2017 causing many to reduce their workload due to personal or professional needs. It is also noted that, while Texas reviews the 5-year graduation rate, SBMI allows students to study part-time for 8 years in the master’s program. We expect the rates for 2018 and more current years to increase in the future.

**Table 8.1.7.** SBMI M.S. 5-Year Graduation Rate

| **Admit Academic Year** | **Total Student Count** | **# Graduated in 5 Years** | **Overall Graduate 5Yr Rate** | **Target** | **Threshold** |
| --- | --- | --- | --- | --- | --- |
| 2014 | 66 | 50 | 76% | 70% | 60% |
| 2015 | 53 | 36 | 68% | 70% | 60% |
| 2016 | 71 | 54 | 76% | 70% | 60% |
| 2017 | 68 | 48 | 71% | 70% | 60% |
| 2018 | 71 | 43 | 61% | 70% | 60% |
| 2019 | 85 | 39 | 46% | 70% | 60% |
| 2020 | 85 | 21 | 25% | 70% | 60% |
| 2021 | 169 | 2 | 1% | 70% | 60% |

**Figure 8.1.4.** SBMI 5-Year Graduation Rate

**SBMI M.S. Graduation Rates by Delivery Method**

The SBMI target rate was met for all admit years for classroom students as seen in Table 8.1.8 and Figure 8.1.5. Students entering in 2019 are still completing their degree program. For the web-based students, SBMI met the 70 percent target rate in 2014, but not in AY 2015 or 2018; however, the graduation rates are above the 60 percent action threshold for these years. Many SBMI online students attend part-time as they are also working professionals, oftentimes with family. Thus, they are more susceptible to outside pressures causing them to discontinue their studies prior to completion. The lower graduation rate for 2018 for web-based students is due to a majority of web-based students taking courses on a part-time basis.

**Table 8.1.8.** SBMI M.S. Graduation Rates by Delivery Method

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Admit Academic Year** | **Classroom** | **Online** | **Target** | **Threshold** |
| 2014 | 83% | 79% | 70% | 60% |
| 2015 | 92% | 62% | 70% | 60% |
| 2016 | 100% | 72% | 70% | 60% |
| 2017 | 85% | 72% | 70% | 60% |
| 2018 | 82% | 66% | 70% | 60% |
| 2019 | 42% | 52% | 70% | 60% |
| 2020 | 20% | 27% | 70% | 60% |
| 2021 | 0% | 2% | 70% | 60% |

**Figure 8.1.5.** SBMI M.S. Graduation Rates by Delivery Method

**SBMI M.S. Graduation Rates by Gender**

The SBMI M.S. 5-year graduation rates by gender can be found in Table 8.1.9 and Figure 8.1.6. As can be seen, the female graduation rates are higher than the male graduation rates except for 2015. In all years, except for 2015, the female graduation rates exceeded the target rate of 70 percent. Due to the part-time nature of a majority of SBMI students, the rates reported for 2018 and more current are incomplete. For the male students, the 5-year graduation rate for 2016 and 2017 dipped below the target. In 2018, it went below the threshold. SBMI is undertaking an in-depth analysis of the male students who fail to graduate within 5 years in an attempt to determine the reasons.

**Table 8.1.9.** M.S. Graduation Rates by Gender

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Admit Academic Year** | **Female** | **Male** | **Target** | **Threshold** |
| 2014 | 82% | 70% | 70% | 60% |
| 2015 | 65% | 70% | 70% | 60% |
| 2016 | 84% | 64% | 70% | 60% |
| 2017 | 79% | 62% | 70% | 60% |
| 2018 | 74% | 47% | 70% | 60% |
| 2019 | 51% | 40% | 70% | 60% |
| 2020 | 24% | 26% | 70% | 60% |
| 2021 | 1% | 1% | 70% | 60% |

**Figure 8.1.6.** SBMI M.S. Graduation Rates by Gender

**SBMI M.S. Graduation Rates by Race and Ethnicity**

The SBMI graduation rates broken out by race and ethnicity are found in Table 8.1.10 and Figure 8.1.7. There are still part-time students from 2018 to more current studying in the program; hence, the three categories below 60 percent in 2018 and more recently. The only other category below the 60 percent threshold twice are those who report as Asian, with 58 percent who started in 2015 completing and only 53 percent of those completing in 2017 graduating. SBMI will continue to monitor the graduation rates by race and ethnicity and will delve into the details of the students identifying as Asian in an attempt to determine why the percentage was lower than the threshold.

**Table 8.1.10.** SBMI M.S. Graduation Rates by Race and Ethnicity

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Admit Academic Year** | **AMIND** | **ASIAN** | **BLACK** | **HISPA** | **MULTI** | **NSPEC** | **PACIF** | **WHITE** |
| 2014 |  | 69% | 100% | 67% | 50% | 58% |  | 86% |
| 2015 |  | 58% | 83% | 73% | 67% | 75% |  | 56% |
| 2016 | 100% | 73% | 75% | 91% |  | 90% |  | 65% |
| 2017 |  | 53% | 100% | 73% | 100% | 73% |  | 73% |
| 2018 |  | 67% | 67% | 83% |  | 50% | 50% | 56% |
| 2019 |  | 48% | 50% | 56% |  | 47%% |  | 46% |
| 2020 |  | 20% | 44% | 17% |  | 21% |  | 30% |
| 2021 |  |  |  |  |  |  |  | 5% |

**Figure 8.1.7.** SBMI M.S. Graduation Rates by Race and Ethnicity

**SBMI Ph.D. Program**

**SBMI Ph.D. Retention Rates**

SBMI has a year over year target retention rate of 90 percent, with a threshold for corrective action of 80 percent. As can be seen in Table 8.1.11 and Figure 8.1.8, SBMI met or exceeded the target each academic year. The SBMI Ph.D. program is currently a full-time, on-campus program.

**Table 8.1.11.** SBMI Ph.D. Retention Rates

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic**  **Year** | **Total # Students** | **Discontinued/Dismissed** | **Retention Rate** | **Target** | **Threshold** |
| 2014 | 30 | 0 | 100% | 90% | 80% |
| 2015 | 31 | 1 | 97% | 90% | 80% |
| 2016 | 30 | 3 | 90% | 90% | 80% |
| 2017 | 27 | 2 | 93% | 90% | 80% |
| 2018 | 25 | 2 | 92% | 90% | 80% |
| 2019 | 27 | 1 | 96% | 90% | 80% |
| 2020 | 35 | 1 | 97% | 90% | 80% |
| 2021 | 49 | 2 | 96% | 90% | 80% |

**Figure 8.1.8.** SBMI Ph.D. Retention Rates

**SBMI Ph.D. Retention Rates by Gender**

The SBMI Ph.D. program retention rates occasionally fall below the 90 percent target, but never below the 80 percent threshold. As can be seen in Table 8.1.12 and Figure 8.1.9, depending upon the number of Ph.D. students of a given gender, losing even 1 student can result in a dip below the target as happened for the female students in 2017. The retention rate for male students fell below the target in 2016 and 2018. One male student in 2016 and one male student in 2018 elected to leave the Ph.D. program to pursue full-time work.

**Table 8.1.12.** Ph.D. Retention Rates by Gender

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Acad Year** | **Total # Female Students** | **Discon-**  **tinued/**  **Dismissed** | **Female Retention Rate** | **Total # Male Students** | **Discon-**  **tinued/**  **Dismissed** | **Male Retention Rate** | **Target** | **Threshold** |
| 2014 | 10 | 0 | 100% | 20 | 0 | 100% | 90% | 80% |
| 2015 | 8 | 0 | 100% | 23 | 1 | 96% | 90% | 80% |
| 2016 | 9 | 0 | 100% | 21 | 3 | 86% | 90% | 80% |
| 2017 | 9 | 1 | 89% | 18 | 1 | 94% | 90% | 80% |
| 2018 | 10 | 0 | 100% | 15 | 2 | 87% | 90% | 80% |
| 2019 | 15 | 1 | 93% | 12 | 0 | 100% | 90% | 80% |
| 2020 | 17 | 0 | 100% | 18 | 1 | 94% | 90% | 80% |
| 2021 | 26 | 0 | 100% | 23 | 2 | 91% | 90% | 80% |

**Figure 8.1.9.** SBMI Ph.D. Retention Rates by Gender

**SBMI Ph.D. Retention Rates by Race and Ethnicity**

As seen in Table 8.1.13, SBMI averages from 25 to 30 Ph.D. students each academic year. When broken out by race and ethnicity, the numbers can be quite small. While SBMI strives to retain all students, the retention rates can fall below the threshold for action as seen in Table 8.1.13 and Figure 8.1.10. For example, the 67 percent retention rate in AY 2015 for black students represents the loss of one student, as does the 0 percent retention rate for AY 2016, where the single Hispanic student left the program. Similarly, the 71 percent in AY 2017, 75 percent in AY 2018, and 67 percent in 2019 represent the attrition of 2, 1, and 1 student respectively.

**Table 8.1.13.** SBMI Ph.D. Retention Rates by Race and Ethnicity

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Acad Year** | **Asian** | **Black** | **Hispanic** | **Not Specified** | **Pacific Islander** | **White** | **Target** | **Threshold** |
| 2014 | 100% | 100% |  | 100% | 100% | 100% | 90% | 80% |
| 2015 | 100% | 67% | 100% | 100% | 100% | 100% | 90% | 80% |
| 2016 | 100% | 100% | 0% | 92% | 100% | 88% | 90% | 80% |
| 2017 | 71% | 100% | 100% | 100% | 100% | 100% | 90% | 80% |
| 2018 | 75% | 100% | 100% | 92% | 100% | 100% | 90% | 80% |
| 2019 | 67% |  | 100% | 100% | 100% | 100% | 90% | 80% |
| 2020 | 100% |  | 100% | 97% |  | 100% | 90% | 80% |
| 2021 | 100% | 100% | 100% | 97% |  | 50% | 90% | 80% |

**Figure 8.1.10.** SBMI Ph.D. Retention Rates by Race and Ethnicity

**SBMI Ph.D. Graduation Rates**

SBMI measures the Ph.D. graduation rate for Ph.D. students within 10 years. The target rate for graduation from the PhD program within a 10-year timeframe is 70 percent. The threshold requiring corrective action for the Ph.D. program graduation rate is 60 percent. The target goal was met in AY 2016 and the threshold was met in AY 2018 and 2019 as seen in Table 8.1.14 and Figure 8.1.11. As can be seen below, none of the students who entered in 2010 and 2011 graduated. The school has added additional milestones to the Ph.D. program to ensure students’ progress in a timely fashion and graduate within the 10-year window. These changes were effective in Fall 2016. It is also noted that less than 10 students entered in any year from 2004 to 2008, thus, losing 3 Ph.D. students can result in rates at 50 percent or lower.

**Table 8.1.14.** SBMI 10-Year Ph.D. Graduation Rates

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2013-2014**  (Entry 2003-2004) | **2014-2015**  (Entry 2004-2005) | **2015-2016**  (Entry 2005-2006) | **2016-2017**  (Entry 2006-2007) | **2017-2018**  (Entry 2007-2008) | **2018-2019**  (Entry 2008-2009) | **2019-2020**  (Entry 2009-2010) | **2020-2021**  (Entry 2010-2011) | **2021-2022** (Entry 2011-2012) |
| **% of Students Who Graduated** | 50% | 50% | 88% | 40% | 60% | 64% | 0% | 0% | 73% |

**Figure 8.1.11.** SBMI 10-Year Ph.D. Graduation Rates

**SBMI 10-Year Ph.D. Graduation Rates by Gender**

The SBMI 10-year graduation rates for Ph.D. students broken out by gender are found in Table 8.1.15 and Figure 8.1.12. With the exception of the students who entered in 2008 and 2012, the graduation rates for males was higher than for female students. Additionally, for many of the years included, the numbers are very small. For example, for the cohort that entered in 2007, three female students started the program, with only one completing the program. In both 2007 and 2008, two male students started each year, with only one student completing the program. In both 2010 and 2011, none of the students who started the Ph.D. program finished the program. As has been described previously, this failure to graduate has already been addressed by SBMI. Additional structure was introduced into the Ph.D. program with the cohort that entered in Fall 2016. This structure included additional required courses such as Advanced Research Design and Critical Review of the Literature to help the Ph.D. students build foundational skills while completing important portions of their dissertation proposal. Additionally, prior to 2016, there was only one milestone, advance to candidacy, for the Ph.D. students prior to dissertation defense. Beginning with the 2016 cohort, Ph.D. students are required to complete a qualifying exam with both a written and oral component.

**Table 8.1.15.** SBMI 10-Year Ph.D. Graduation Rates by Gender

| **Admit Academic Year** | **Female** | **Male** | **Target** | **Threshold** |
| --- | --- | --- | --- | --- |
| 2004/2014 | 0% | 100% | 70% | 60% |
| 2005/2015 | 50% | 60% | 70% | 60% |
| 2006/2016 | 75% | 100% | 70% | 60% |
| 2007/2017 | 33% | 50% | 70% | 60% |
| 2008/2018 | 67% | 50% | 70% | 60% |
| 2009/2019 | 50% | 80% | 70% | 60% |
| 2010/2020 | 0% | 0% | 70% | 60% |
| 2011/2021 | 0% | 0% | 70% | 60% |
| 2012/2022 | 75% | 71% | 70% | 60% |

**Figure 8.1.12.** SBMI 10-Year Ph.D. Graduation Rate by Gender

**SBMI 10-Year Ph.D. Graduation Rates by Race and Ethnicity**

The SBMI 10-year Ph.D. graduation rates are found in Table 8.1.16. The rates with a zero percent indicate years in which all of the students of a given race who started failed to complete the Ph.D. program. With the exception of two students who did not specify their race or ethnicity who started in 2007, all cases with a zero percent represent a single student of that race entering the program who failed to complete the program. In 2005 the seven students who entered the Ph.D. program did not declare their race or ethnicity and only four of the students completed the program. Of the two Asian students who entered the Ph.D. program in 2009, only one student completed. None of the students who entered in 2010 or 2011 completed the program. In 2012, only 2 White students matriculated in the Ph.D. program, resulting in a 50% graduation rate when 1 student discontinued in the program. As stated previously, the Ph.D. program has been revised to better support student success.

**Table 8.1.16.** SBMI 10-Year Ph.D. Graduation Rates by Race and Ethnicity

| **Admit Academic Year** | **Am**  **Indian** | **Asian** | **Black** | **Hispanic** | **Not**  **Spec** | **Pacific Islander** | **White** | **Target** | **Threshold** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2004/2014 |  | 100% |  |  | 0% |  |  | 70% | 60% |
| 2005/2015 |  |  |  |  | 57% |  |  | 70% | 60% |
| 2006/2016 | 100% |  |  |  | 100% |  | 67% | 70% | 60% |
| 2007/2017 |  | 0% |  |  | 0% |  | 100% | 70% | 60% |
| 2008/2018 |  |  |  | 100% | 0% |  | 67% | 70% | 60% |
| 2009/2019 |  | 50% | 0% |  | 75% |  | 75% | 70% | 60% |
| 2010/2020 |  |  |  |  | 0% |  |  | 70% | 60% |
| 2011/2021 |  |  |  |  |  |  |  | 70% | 60% |
| 2012/2022 |  | 67% |  |  | 80% | 100% | 50% | 70% | 60% |

**SBMI D.H.I. Program**

**SBMI D.H.I. Retention Rates**

SBMI has a year over year target retention rate of 90 percent, with a threshold for corrective action of 80 percent. As can be seen in Table 8.1.17 SBMI met or exceeded the target each academic year. The SBMI D.H.I. program is currently a part-time, hybrid program.

**Table 8.1.17.** SBMI D.H.I. Retention Rates

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic**  **Year** | **Total # Students** | **Discontinued/Dismissed** | **Retention Rate** | **Target** | **Threshold** |
| 2020 | 11 | 1 | 91% | 90% | 80% |
| 2021 | 26 | 1 | 96% | 90% | 80% |

**SBMI D.H.I. Retention Rates by Gender**

As can be seen in Table 8.1.18, depending upon the number of D.H.I. students of a given gender, losing even 1 student can result in a dip below the target as happened for the male students in 2020. SBMI will continue to monitor the retention rates by gender until clear trends are established.

**Table 8.1.18.** D.H.I. Retention Rates by Gender

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Acad Year** | **Total # Female Students** | **Discon-**  **tinued/**  **Dismissed** | **Female Retention Rate** | **Total # Male Students** | **Discon-**  **tinued/**  **Dismissed** | **Male Retention Rate** | **Target** | **Threshold** |
| 2020 | 6 | 0 | 100% | 5 | 1 | 80% | 90% | 80% |
| 2021 | 16 | 0 | 100% | 10 | 1 | 90% | 90% | 80% |

**SBMI D.H.I. Retention Rates by Race and Ethnicity**

As seen in Table 8.1.19, the SBMI D.H.I. program is new. When broken out by race and ethnicity, the numbers can be quite small. While SBMI strives to retain all students, the retention rates can fall below the threshold for action. The 88 percent retention rate for 2020, while below the target, only represents 1 student.

**Table 8.1.19.** SBMI D.H.I. Retention Rates by Race and Ethnicity

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Acad Year** | **Asian** | **Black** | **Hispanic** | **White** | **Target** | **Threshold** |
| 2020 |  | 100% |  | 88% | 90% | 80% |
| 2021 | 100% | 100% | 100% | 93% | 90% | 80% |

**Graduates Employed in Informatics**

One of the goals of SBMI is “to educate current and future leaders, innovators, and problem solvers.” The field of biomedical informatics currently does not have a credential or licensing exam for its graduates, so SBMI is tracking the employment of graduates in the field of informatics. Given the diversity of the SBMI student body, with 23 percent of entering students already holding a professional degree such as the M.D. or Pharm.D; and 29 percent already holding a graduate degree, the M.S. target rate for employment in informatics is set at 50 percent, with a threshold of 40 percent set for corrective action. All students are required to complete an exit survey upon graduation from the M.S. and Ph.D. programs. Graduates are asked whether they have a job in informatics. Potential responses are Yes, No, N/A, or leaving the entry blank. The responses for the M.S. graduates from AY 2017 to AY 2021 can be found in Table 8.1.17 and Figure 8.1.13. In AY 2017 and AY 2018, the rate of those reporting a job in informatics fell below the target rate, but above the threshold for corrective action. In AY 2019 the rate rose above the target rate and has remained there. Those who graduated with the M.S. and reported they did not have a job in informatics (an answer of No), were employed in other areas in health care, for example, as a nurse or a physician. Some of those answering N/A were also employed in other areas of health care or were currently searching for an informatics position. Of the 25 who left the question blank, 4 have continued into the Ph.D. program at SBMI, 1 was a medical student, 1 was a physician, and 3 were international students who cannot work until they have officially graduated.

The Ph.D. target rate for students finding employment in the informatics field is 80 percent, with a threshold rate of 70 percent for corrective action. The rates are higher for the Ph.D. due to the additional study and specialization required for the Ph.D. program. As can be seen in Table 8.1.18 and Figure 8.1.14, the target rate was met in AY 201, AY 2018, and AY 2021. One Ph.D. graduate of the four total left the job question blank in AY 2018, resulting in the 80 percent rate. The 67 percent rate in AY 2019 and AY 2020 falls below the threshold for corrective action. However, 33 percent answering No represents a single student as only 3 Ph.D. students graduated in AY 2019 and AY 2020. SBMI will continue to monitor the employment for Ph.D. students. Should the rates remain below the threshold additional investigation will be pursued.

**Table 8.1.17.** SBMI M.S. Graduates with Jobs in Informatics

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Academic Year Completed** | **Did Not Answer** | **N/A** | **No** | **Yes** | **Target** | **Threshold** |
| AY2017 | 18% | 27% | 7% | 49% | 50% | 40% |
| AY2018 | 16% | 27% | 12% | 45% | 50% | 40% |
| AY2019 | 14% | 19% | 14% | 53% | 50% | 40% |
| AY2020 | 12% | 9% | 24% | 56% | 50% | 40% |
| AY2021 | 0% | 28% | 19% | 53% | 50% | 40% |

**Figure 8.1.13.** SBMI M.S. Graduates with Jobs in Informatics

**Table 8.1.18.** SBMI Ph.D. Graduates with Jobs in Informatics

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Academic Year** | **Blank** | **No** | **Yes** | **Target** | **Threshold** |
| AY 2017 | 0% | 0% | 100% | 80% | 70% |
| AY 2018 | 20% | 0% | 80% | 80% | 70% |
| AY 2019 | 0% | 33% | 67% | 80% | 70% |
| AY 2020 | 0% | 33% | 67% | 80% | 70% |
| AY 2021 | 0% | 0% | 100% | 80% | 70% |

**Figure 8.1.14.** SBMI Ph.D. Graduates with Jobs in Informatics