Student Academic Success: Highlights of Retention Data and Surveys



Office of the Vice Chancellor for Students University of Hawai'i at Mānoa February 2008

Student Retention Highlights Office of the Vice Chancellor for Students University of Hawai'i at Mānoa February 2008

Summary

This report highlights data related to retention and to student concerns for an improved educational environment at the University of Hawai'i at Mānoa. Data are gleaned from an array of institutional research reports, student surveys, and studies. This report provides a framework for understanding certain issues and a platform for further inquiry, discussion, and development.

1.0 Retention Rates

- 1.1 The average one-year retention rate for UHM first-time freshmen is 79 percent. This is lower than the average retention rates of benchmark (88 percent) and peer (85 percent) groups.
- 1.2 Retention for Mānoa has been declining from 1991 to 2003 with a widening and leveling off of the retention rates between UHM and its comparison institutions.
- 1.3 Asians have the highest average first-year retention rates (79 percent). Within that category, Chinese (89 percent) and Japanese (86 percent) top the list followed by Filipinos (82 percent) and Hawaiians/Part-Hawaiians (73 percent). Caucasians have the lowest rates (65 percent).
- 1.4 Retention rates of first-time freshmen are higher than transfer students for 2002 and 2003 cohorts. Retention rates also declined for both cohort groups from 2002 to 2003.
- 1.5 Retention and graduation rates are much higher for UH-Mānoa students who come from Hawai'i (82 percent) and foreign (82 percent) high schools compared to students from U.S. mainland high schools (69 percent).
- 1.6 Women (80 percent) exhibit a slightly higher retention rate than men (78 percent).
- 1.7 Retention rates of first-time students vary widely among student sub-groups with the average rate being 80 percent. In descending order international and resident students show retention rates above the group average; undeclared majors, transfer, College Opportunity Program, mainland, and part-time students claim retention rates below the group average.
- 1.8 Likewise, graduation rates of first-time students vary widely among student sub-groups with the average rate being 51 percent. International, transfer, and resident students display graduation rates above the group average; undeclared majors are retained at the average group rate; and mainland, part-time, and College Opportunity students claim retention rates below the group average.
- 1.9 UH-Mānoa is categorized as a "highly selective" institution when comparing its average one-year retention rate and composite SAT score with institutions in the Consortium for Student Retention Data Exchange.

1.10 There was a slight increase in the average composite SAT score for first-time freshmen from 2003 to 2004 with no corresponding increase of the average retention rate over the same period.

2.0 Graduation Rates

- 2.1 Slightly more than half (54 percent) of UHM students take an average of six years to graduate. This graduation rate is far lower than its benchmark (70 percent) and peer groups (66 percent).
- 2.2 UH-Mānoa's graduation rates have been consistently lower than its benchmark and peer institutions over the years.
- 2.3 While entering student surveys show that UH-Mānoa students expect to graduate in four years, institutional data indicate that only 10 percent actually do. Four-year graduation rates are higher for benchmark (40 percent) and peer (37 percent) institutions.
- 2.4 Chinese (71 percent) students claim the highest six-year graduation rate while Hawaiian/Part-Hawaiian (42 percent) and Caucasians (42 percent) one of the lowest.
- 2.5 Although first-year retention rates differ slightly between genders, six-year graduation rates show a larger percentage of women (58 percent) graduating than men (49 percent).
- 2.6 One-quarter of entering students intend to change their major field while at Mānoa. Most plan to work about 20 hours a week. Nearly three-fourths are not confident about getting needed classes. One-third does not feel that high school or the community colleges prepared them well for college.
- 2.7 Graduating seniors who took more than four years to graduate cited three major reasons for taking so long:
 - 1. Change of major
 - 2. Availability of courses
 - 3. Work
- 2.8 Credit hours required to graduate also influence time to degree. UHM requires 124 credits to graduate. Assuming 15 credit hours a semester is a full load, a student enrolled for four years (eight semesters excluding summer sessions) would complete only 120 credits. Therefore students cannot graduate within four years without taking a heavier load and/or attending evening or summer sessions. Full-time students take an average of 13.7 credits per semester
- 2.9 Most students (66 percent) are satisfied with the more traditional 7:30 a.m. to 3:00 p.m. scheduling of classes. Nevertheless, upper division and graduate students appear more open to the scheduling of classes during the late afternoon and evening, and it is a #1 priority for unclassified students, nontraditional students, and students with children.

3.0 Success Rates

3.1 Success rate is defined as the percentage of first-time freshmen in a given fall semester who have graduated plus those who are still enrolled.

- 3.2 For UH-Manoa students the estimated success rate for entering freshmen after six years is 62 percent compared with 76 percent and 71 percent for benchmark and peer institutions.
- 3.3 As with retention and graduation rates, Chinese (80 percent) students hold the highest success rate followed by Japanese (77 percent), Filipino (62 percent), Hawaiian/Part-Hawaiian (52 percent), and Caucasian (46 percent) students.

4.0 Reasons First-Time Students Leave Manoa

- 4.1 Students leave Mānoa after their first year for varied and interrelated reasons related to their academic, financial, personal, and support services experiences.
- 4.2 Reasons for leaving vary with leavers who are stop-outs (those who plan to return in the future), drop-outs (those who do not intend to return), and undecided (those who are unsure about returning).
- 4.3 About 15 percent of first-year leavers enter UHM with the intent to leave after a year. This group may be considered a success for achieving their educational objective although they are still defined as leavers.
- 4.4 A larger number, 35 percent, enter with the intent to stay but decide to leave as a result of their experiences while at Mānoa.

5.0 Common Perceptions of Leavers and Non-Leavers

5.1 A study of upper division UH-Mānoa students and leavers identified factors most influential in the decision of students to leave. Many of the reasons were similar to reasons given by first-time student leavers.

6.0 Student Characteristics and Experiences

6.1 Student Characteristics

During fall 2006, more transfer students (1,822 or 51 percent) enrolled at UH- $M\bar{a}$ noa than freshmen (1,775 or 49 percent).

As indicated earlier, retention is lower for transfer students than first-time freshmen thus affirming the need for appropriate interventions for transfer students as much as for first-time freshmen. Transfer students span all class levels. One-third are still freshmen and sophomores while two-thirds are juniors and seniors.

6.2 First Generation Students

The percentage of first generation undergraduates have gradually declined over the years while students whose parent(s) graduated from college have increased. In 2006, 35 percent of UHM undergraduates were first-generation students compared to 22 percent in the comparison group. Conversely 65 percent of UHM students had one or both parents with a college degree compared to the national norm of 78 percent.

6.3 Time on Task

As for time on educational tasks, UH-Mānoa first year students spend significantly less time preparing for class and engaging in co-curricular activities and significantly more time relaxing and socializing, commuting to class, working off-campus and caring for dependents than the comparison group.

6.4 Employment and Finances

About 69 percent of UHM undergraduates work. This percentage has decreased over the years. However, the percentage of students who work still far exceeds the comparison group (49 percent).

Despite a drop in the percentage over the years of employed students, there has not been a corresponding increase in retention rates. There has been a slight increase in the percentage of students graduating within six years which suggests that student employment may have more of an impact on time to degree than on retention.

About half or 51 percent of employed students work off-campus, 35 percent on-campus, and 14 percent on- and off-campus. Additionally, more students work as they advance in class level.

Most students work 11-20 hours a week on- or off-campus. Students who work more than 20 hours a week tend to be employed off-campus.

When asked whether employment interfered with their school work, one-third (30 percent) indicated that it did not interfere. However, two-thirds said it took some time (56 percent) or it took a lot of time (14 percent) from their school work.

Nearly half of first-time students rely on their parents to cover college costs. There is a downward trend of parental coverage and a corresponding upward trend of student loans used to defray college costs.

First-time freshmen who work use their wages for personal expenses (59 percent) followed by educational (28 percent), other (8 percent), and family (5 percent) expenses. Although a large proportion of freshmen use their earnings for personal expenses, 43 percent note that they must work at least part-time to stay in school.

As for student financial aid, about half or 53 percent of first-time undergraduates at UH- $M\bar{a}$ noa received financial aid during the 2003-2004 and 2004-2005 academic years, up from 45 percent in 2002-2003.

The average aid amount given to UH-Manoa first-time undergraduates during academic year 2004-2005 was \$3,387, up from previous years.

The tuition and required fees for UHM resident and non-resident undergraduates are below WICHE averages.

6.5 Challenging Courses

Challenging courses as defined by the Chancellor's Office are 100 and 200 level courses (excluding courses numbered 199 and 299) in which 30 percent or more of the registrants earned grades of D, F, W or NC.

A study over three consecutive semesters revealed that science and math courses gave students the most difficulty. Math had the largest number of challenging courses. Eight courses qualified as a challenging course for three consecutive semesters (Anthropology 215, CEE 270, CEE 271, Chemistry 272, ICS 211, Math 215, Math 241, and Philosophy 110).

The majority of challenging courses was on the 200 level.

However, two 100 level introductory courses, Math 100 and Psychology 100, had the largest number of registrants receiving D, F, W, and NC grades.

6.6 Student Engagement

A 2007 National Survey on Student Engagement (NSSE) study suggests that UH-Mānoa first-year students are not as involved in their educational environment as the comparison groups in the following four areas of effective educational practices:

- level of academic challenge
- active and collaborative learning
- degree of student-faculty interaction
- supportive campus environment

The highest performing areas for first-year students were:

- Had serious conversations with students of another race or ethnicity
- Completed foreign language coursework
- Wrote more than 10 papers or reports of fewer than five pages
- Made a class presentation
- Wrote at least one paper or report of 20 pages or more

The lowest performing areas for first-year students were:

- Spent more than five hours/week participating in co-curricular activities
- Said the institution provides substantial support for students' social needs
- Received prompt written or oral feedback from faculty
- Said the institution provides substantial support for academic success
- Said the institution emphasizes studying and academic work

7.0 Summary of Needed Improvement Reported by Students

The most prominent suggestions for areas of needed change taken from numerous leaver and continuing student survey results are summarized below. A number of suggestions made by leavers are similar to suggestions made by continuing students. These are represented by an asterisk (*).

- Quality of instruction *
- Challenging classes *
- Access to financial aid *
- Value for tuition
- Housing repair and renovation *
- Academic advising *
- Class scheduling
- Course availability *

- Classroom facilities
- More places to study
- Tutoring services
- Safety and security
- Variety of food services
- Parking
- More helpful faculty and staff *

Personal/social reasons were high on the list for student who left the University:

- Wanted to be closer to home
- Felt too lonely

The need to engage students, faculty and staff in the following areas also stood out:

- Level of academic effort
- Faculty-student interaction inside and outside the classroom
- Academic and student support

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1.0 Retention Rates

One-year retention rate is defined as the percentage of first-time degree seeking freshmen in a given fall semester who returned to UHM in a subsequent fall semester.

The average one-year retention rate for UHM first-time freshmen is 79 percent. This is lower than the average retention rates of benchmark and peer groups. See Figure 1.

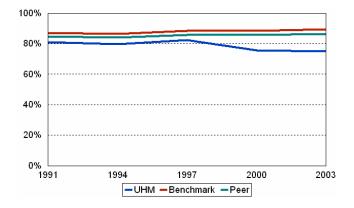
Figure 1
Average Retention Rate
1990-2004 Cohorts

| | UНМ | Benchmark | Peer |
|------------------------------|-----|-----------|------|
| Average Retention Rate | 79% | 88% | 85% |

Source: MAPS Graduation and Retention Rates, CSRDE, September 2007

Furthermore, retention for $M\bar{a}$ noa has been declining over the years with a corresponding widening and leveling off of the retention gap between UHM and its comparison institutions. See Figure 2.

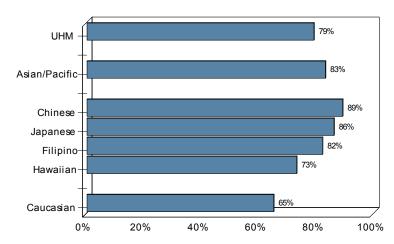
Figure 2
Retention Rates of UHM First-Time Freshmen and Benchmark and Peer Institutions
Fall 1991 to 2003 cohorts (After 1 Year)



Source: MAPS Graduation and Retention Rates, CSRDE, October 2005

In terms of ethnicity, Asians have the highest average first-year retention rates. Within that category, Chinese and Japanese have the highest average retention rates followed by Filipinos and Hawaiians/Part-Hawaiians. Caucasians have the lowest rates. See Figure 3.

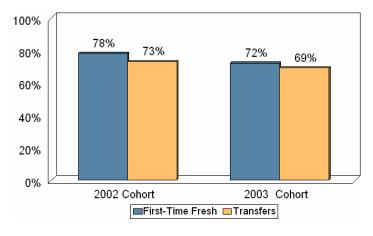
Figure 3
Average Retention Rates by Ethnicity of UHM First-Time, Full-Time
Degree-Seeking Fall 1990 to Fall 2004 Cohorts, As of 2005



Source: MAPS Graduation and Retention Rates, CSRDE, September 2007

Retention rates of first-time freshmen are higher than transfer students for 2002 and 2003 cohorts. These data also reveal that retention declined for both cohort groups from 2002 to 2003. See Figure 4.

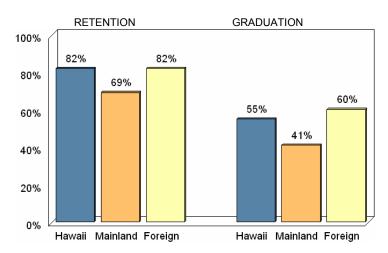
Figure 4
Retention Rates of First-Time Freshmen and Transfers
2002 and 2003 Cohorts



Source: IRO, Attrition in the First Academic Year Tables, January 2006

Retention and graduation rates are higher for UH- $M\bar{a}$ noa students who come from Hawai'i and foreign high schools compared to students who come from U.S. mainland high schools. See Figure 5.

Figure 5
Retention and Graduation Rates by Last High School Attended of Fall 1990 to Fall 1994 Cohorts, As of 2000



Source: IRO, UH, February 2002

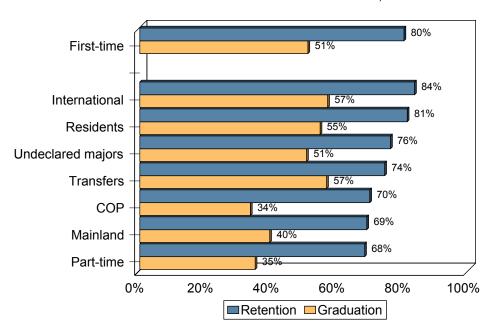
Women (80 percent) exhibit a slightly higher retention rate than men (78 percent).

Figure 6 displays the retention and graduation rates of student sub-groups for fall 1992 to fall 1995 cohorts. All groups are first-time, full-time students except for part-time students and transfers.

- The average one-year retention rate for first-time, full-time students is 80 percent.
- International students and residents (based on tuition status) exceed the average retention rate.
- Undeclared majors, College Opportunity Program (COP), mainland and part-time students fall below the average retention rate.
- The average six-year graduation rate is 51 percent.
- International students, residents, undeclared majors and transfers exceed the average graduation rate.
- COP, mainland, and part-time students exhibit the lowest retention and graduation rates.
- However, mainland students graduate at a slightly higher rate than COP and part-time students.

These results closely resemble the average one-year retention rate of fall 1990 to fall 2003 cohorts (79 percent) and are slightly lower than the average graduation rate of fall 1990 to fall 2003 cohorts (54 percent).

Figure 6
Retention and Graduation Rates of Student Sub-Groups
Fall 1992 to Fall 1995 Cohorts, As of 2002



Source: IRO, Graduation and Retention Rates, UHM, October 2002

UH-Mānoa is categorized as a "highly selective" institution when comparing its average oneyear retention rate and composite SAT score with institutions in the Consortium for Student Retention Data Exchange as shown in Figure 7.

Figure 7
UHM First-Time Freshmen Comparison with Consortium on Average Retention Rate and Composite SAT Scores
Fall 2004 Cohorts

| | MHN | Highly Selective | Selective | Moderately Selective | Less Selective | All Institutions |
|-------------------------|------|---------------------|---------------|-------------------------|-------------------|---------------------|
| Avg 1 Year Retention | 78.9 | 86.6 | 78.6 | 73.4 | 70.2 | 79.7 |
| Avg Composite SAT | 1106 | above 1100 | 1045- 1100 | 990-1044 | below 990 | 1107 |

Source: MAPS Graduation and Retention Rates, Consortium for Student Retention Data Exchange, September 2007

There was a slight increase of the UHM first-time freshmen average composite SAT score from 1098 to 1106 from fall 2003 to fall 2004 with no corresponding increase in the average retention rate of 79 percent for the same period.

The average composite SAT score for fall 2006 first-time freshmen is 1094 (IRO, 2007).

2.0 Graduation Rates

Graduation rate is defined as the cumulative percentage of first-time freshmen in a given fall semester who graduated within a designated period of time (six years is used in this report) measured as of the summer term.

Slightly more than half (54 percent) of UHM students take an average of six years to graduate. This graduation rate is far lower than its benchmark and peer groups and has remained stable over the last four years. See Figure 8.

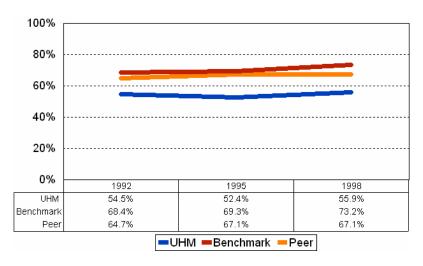
Figure 8
Average Six-Year Graduation Rate
Fall 1990 to Fall 2004 Cohorts, As of 2005

| | UНМ | Benchmark | Peer |
|-------------------------------|-----|-----------|------|
| A∨erage Graduation Rate | 54% | 70% | 66% |

Source: MAPS Graduation and Retention Rates, September 2007

UH-Mānoa's graduation rates have been consistently lower than its benchmark and peer institutions over the years. See Figure 9.

Figure 9
Graduation Rates of UHM First-Time Freshmen and Benchmark and Peer Institutions
Fall 1992, 1995, and 1998 Cohorts



Source: MAPS Graduation and Retention Rates, October 2005

While entering student surveys show that UH-Mānoa students expect to graduate in four years, institutional data indicate that only 10 percent actually do. Four-year graduation rates are higher for benchmark (40 percent) and peer (37 percent) institutions.

Graduation rates by ethnicity for fall 1990 to fall 2003 cohorts follow. Chinese students claim the highest six-year graduation rate while Hawaiian/Part-Hawaiian and Caucasians one of the lowest (IRO, 2005).

- 71% Chinese
- 64% Japanese
- 51% Filipino
- 42% Hawaiian/Part-Hawaiian
- 42% Caucasians

Although first-year retention rates differ slightly between genders, six-year graduation rates show a larger percentage of women (58 percent) graduating than men (49 percent).

Factors influencing time to degree are many. Changing majors, work, availability of classes, and student preparedness may counter plans to graduate in four years. One-quarter (24 percent) of entering students report an intent to change their majors while at Mānoa. Most plan to work about 20 hours a week. Nearly three-fourths (72 percent) are not confident that they will get the classes they want. One-third (31 percent) do not feel that high school or the community colleges prepared them well for college. (Harms, 2005)

Graduating seniors who took more than four years to graduate cited the following three major reasons for taking so long (Graduating Senior Survey, 2002):

- 1. Change of major
- 2. Availability of courses
- 3. Work

Credit hours required to graduate also influence time to degree. UHM requires 124 credits to graduate. Assuming 15 credit hours a semester is a full load, a student enrolled for four years (eight semesters excluding summer sessions) would complete only 120 credits. Therefore students cannot graduate within four years without taking a heavier load and/or attending evening or summer sessions. A review of the average semester hours taken by full-time students from fall 2001 to fall 2006 shows that students take an average of 13.7 credits per semester.

Most students are satisfied with the more traditional 7:30 a.m. to 3:00 p.m. scheduling of classes. Nevertheless, upper division and graduate students appear more open to the scheduling of classes during the late afternoon and evening (Aune, 2006; Harms, 2006).

- 66 percent feel scheduling classes between 7:30 a.m. and 3:00 p.m. adequately meets their needs. (24 percent disagree)
- 56 percent would attend classes offered in their major field in late afternoon and evening. (28 percent disagree)
- When students were asked to identify the most significant way to improve their educational environment, scheduling a significant number of classes from 3 p.m. to 11 p.m. ranked #6 out of 19 items. This schedule was a higher priority for graduate rather

than undergraduate students and a #1 priority for unclassified students, non-traditional students, and students with children.

Most students (78 percent) also indicate that scheduling classes to meet either twice a week (T-R) or three times a week (MWF) is adequate for their needs. (12 percent disagree)

3.0 Success Rates

Success rate is defined as the percentage of first-time freshmen in a given fall semester who have graduated plus those who are still enrolled.

For UH-Manoa students the estimated success rate for entering freshmen after six years is 62 percent compared with 76 percent and 71 percent for benchmark and peer institutions. See Figure 10.

Figure 10 UHM Success Rate Fall 1999 Cohort, As of 2005

| | UHM | Benchmark | Peer |
|---------------------------------------|-----|-----------|------|
| Graduated Six Years After Entry | 51% | 74% | 68% |
| Still Enrolled | 12% | 2% | 3% |
| Success Rate | 62% | 76% | 71% |

Source: MAPS Graduation and Retention Rates, CSRDC, September 2007

The success rate by ethnicity is as follows and remain fairly constant a number of years there after.

- 80% Chinese
- 77% Japanese
- 62% Filipino
- 52% Hawaiian/Part-Hawaiian
- 46% Caucasian

4.0 Reasons First-Time Students Leave Mānoa

Students leave and fail to re-enroll after their first year at UH-Manoa for varied and interrelated reasons. Major reasons for leaving as reported by non-returning students are as follows:

Academic Reasons:

- Dissatisfied with quality of instruction
- Could not get needed classes
- Classes not challenging enough
- Dissatisfied with major

Financial and Employment Reasons:

- Received inadequate financial aid
- Tuition and fees not affordable
- Needed to earn money

Personal Reasons:

- Decided to transfer while at UHM
- Wanted to be closer to home
- Needed to relocate
- Always planned to transfer
- · Family circumstances changed
- Felt too lonely

Support Services Reasons:

- Dissatisfied with housing
- Inadequate academic advising
- Inadequate parking
- Staff unhelpful
- Faculty unhelpful

It should be noted that 15 percent of first-year leavers enter UHM with the educational objective or intent to leave after a year. There is another group of leavers who decide to leave as a result of their experiences during the first year. They constitute 35 percent of leavers. The first group may be considered a success for achieving their educational goals. The second group challenges the institution to improve learning environments and conditions.

There are also three categories of leavers: 1) <u>stop-outs</u> (22 percent) or those who plan to return to UHM in the future, 2) <u>drop-outs</u> (42 percent) or those who do not intend to return, and 3) <u>undecided</u> (36 percent) or those who are unsure about returning. (Harms, 2006)

5.0 Common Perceptions of Leavers and Non-Leavers

A study of upper-division UH-Mānoa students and leavers identified factors most influential in the decision of students to leave. (Thomas, 2002)

Academic Reasons:

- Failure of faculty to demonstrate the relevance of core requirements to everyday lives of students
- Faculty teaching performance
- Lack of a meaningful undergraduate academic culture
- Faculty lack of caring for students as individuals
- Difficulty in finding required courses

Financial and Employment Reasons:

- Financial need
- Trouble balancing the demands of work with school

Personal Reasons:

• Inadequate academic preparation for college work

Support Services Reasons:

- Poor academic advising system
- Inadequate financial aid counseling

6.0 Student Characteristics and Experiences

6.1 Student Characteristics

During fall 2006, more transfer students (1,822 or 51 percent) enrolled at UH-Manoa than freshmen (1,775 or 49 percent).

As indicated earlier, retention is lower for transfer students than first-time freshmen thus affirming the need for appropriate interventions for transfer students as much as for first-time freshmen. Transfer students span all class levels. Two-thirds of transfers are upper division students with another one-third composed of freshmen (14 percent) and sophomores (31 percent).

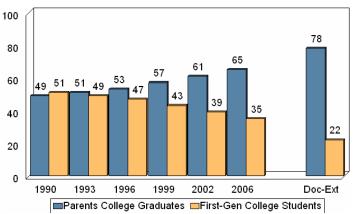
6.2 First Generation Students

The percentage of first generation undergraduates have gradually declined over the years while students whose parent(s) graduated from college have increased. See Figure 11.

In 2006, 35 percent of UHM undergraduates were first-generation students compared to 22 percent in the comparison group. Conversely 65 percent of UHM students had one or both parents with a college degree compared to the national norm of 78 percent.

Figure 11

UHM First-Generation College Students
and Students With Parents Who Graduated From College

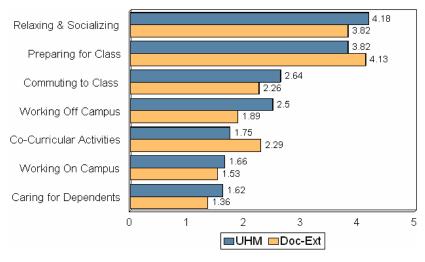


Source: CSEQ Report, December 2002, 2006

6.3 Time on Task

As for time on educational tasks, UH-Mānoa first year students spend significantly less time preparing for class and engaging in co-curricular activities and significantly more time relaxing and socializing, commuting to class, working off-campus and caring for dependents than the comparison group. See Figure 12.

Figure 12
UHM First Year Student Time Usage
Compared to Doctoral-Extensive Universities



Source: 2005 NSSE

6.4 Employment and Finances

About 69 percent of UHM undergraduates work. This percentage has decreased over the years. However, the percentage of students who work still far exceeds the comparison group. See Figure 13.

Despite a drop in the percentage over the years of students who work, there has not been a corresponding increase in retention rates. There has been a slight increase in the percentage of students graduating within six years which suggests that student employment may have more of an impact on time to degree than on retention.

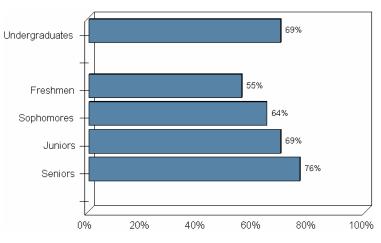
Figure 13
Employed Undergraduates
UHM and Comparison Group 1999-2006

| | UHM 1999 | UHM 2002 | UHM 2006 | Doc-Ext |
|-----------------------------------|-------------|-------------|-------------|---------|
| Percent Employed Undergrads | 78 | 70 | 69 | 49 |

Source: CSEQ 1999, 2002, 2006

About half or 51 percent of employed students work off-campus, 35 percent on-campus, and 14 percent on- and off-campus. Additionally, more students work as they advance in class level. See Figure 14.

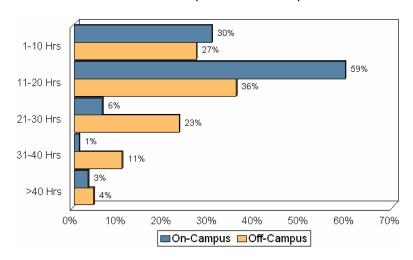
Figure 14 UHM Employed Students by Class



Source: 2006 CSEQ

Most students work 11-20 hours a week on- or off-campus. Students who work more than 20 hours a week tend to be employed off-campus. See Figure 15.

Figure 15
UHM Undergraduate Hours Spent Working
On-Campus and Off-Campus

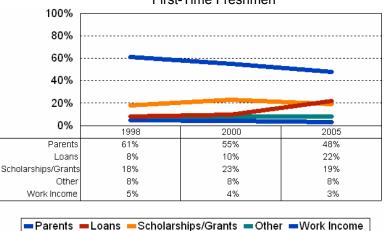


Source: 2006 CSEQ

When asked whether employment interfered with school work, one-third (30 percent) indicated that it did not interfere. However, two-thirds said it took some time (56 percent) or it took a lot of time (14 percent) from their school work (CSEQ 2006).

Nearly half of first-time students rely on their parents to cover college costs. However there is a downward trend of parental coverage and a corresponding upward trend of student loans used to defray college costs. See Figure 16.

Figure 16
Major Sources of Funding for Most Educational Expenses of
First-Time Freshmen



Source: 1998, 2000. 2005 First-Time Freshmen Survey

First-time freshmen who work use their wages for personal expenses (59 percent) followed by educational (28 percent), other (8 percent), and family (5 percent) expenses.

Although a large proportion of freshmen use their earnings for personal expenses, 43 percent note that they must work at least part-time to stay in school.

As for student financial aid, about half or 53 percent of first-time undergraduates at UH- $M\bar{a}$ noa received financial aid during the 2003-2004 and 2004-2005 academic years, up from 45 percent in 2002-2003. See Figure 17.

Figure 17
Percent UHM First-Time Undergraduates
Receiving Financial Aid
During AY 02-03, 03-04, and 04-05

| | 02-03 | 03-04 | 04-05 |
|--|-------|-------|-------|
| Percent Receiving Financial Aid | 45% | 53% | 53% |

Source: Measuring Our Progress, OVPPP, 2004, 2005, 2006

The average aid amount given to UH-Manoa first-time undergraduates during academic year 2004-2005 was \$3,387, up from previous years. See Figure 18.

Figure 18
Average Aid Amount to
UHM First-Time Undergraduates
During AY 02-03, 03-04, and 04-05

| | 02-03 | 03-04 | 04-05 |
|--------------------------|--------|--------|--------|
| Average Aid Amount | \$2863 | \$2921 | \$3387 |

Source: Measuring Our Progress, OVPPP, 2004, 2005, 2006

The tuition and required fees for UHM resident and non-resident undergraduates are below WICHE (institutions from 15 states that are members of the Western Interstate Commission for Higher Education) averages. See Figure 19.

Figure 19
Tuition and Required Fees
as a Percentage of 2005-2006 WICHE Averages

| | Resident | Non- Resident |
|-----|----------|------------------|
| UHM | 71% | 56% |

Source: UH Measuring Our Progress Report 2006

6.5 Challenging Courses

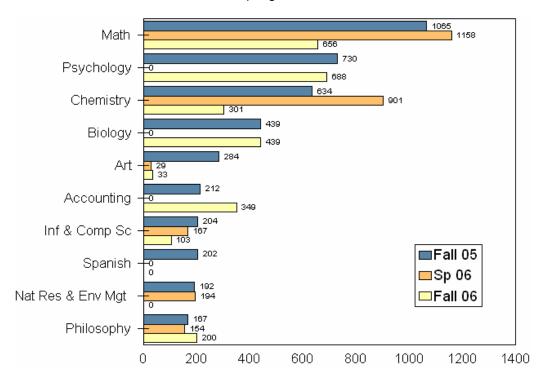
Challenging courses as defined by the Chancellor's Office are 100 and 200 level courses (excluding courses numbered 199 and 299) in which 30 percent or more of the registrants earned grades of D, F, W or NC.

A special study on challenging courses conducted by the UH Institutional Research Office in August 2007 concluded the following:

- Science and math courses and courses that require mathematic or quantitative skill or preparation appear to give students the most difficulty.
- These results were consistent across three semesters (Fall 05, Spring 06, Fall 06).
- Challenging courses comprise less than 3 percent of all undergraduate courses.
- The majority of challenging courses are offered at the 200 level.

Figure 20 displays the courses with the highest registrations in challenging courses over three semesters. Mathematic courses top the list for most semesters. Also, differences in results between fall and spring semesters and among semesters exist for most courses.

Figure 20 Registrations in Challenging Courses Fall 05, Spring 06, and Fall 06



Source: IRO Special Report, October 2006 and August 2007

As noted above, most challenging courses (two-thirds) are on the 200 level. There is a gradual upward trend in percentages of 200 level challenging courses over the three semesters. See Figure 21.

Figure 21
Challenging Courses on the 100 and 200 Level

| Course Level | Fall 2005 | Spring 2006 | Fall 2006 |
|-----------------|--------------|----------------|--------------|
| 100 Level | 37% | 33% | 31% |
| 200 Level | 63% | 67% | 69% |

Source: IRO Special Report, October 2006 and August 2007

Figure 22 presents a summary table of the top challenging courses over three semesters along with the number and percent of student registrants receiving D, F, W, and NC grades. The table indicates that:

Math has the largest number of challenging courses (ten courses).

| Math 100 | Survey of Math |
|-----------|--|
| Math 140 | Precalculus |
| Math 190 | Fortran Programming |
| Math 203 | Calculus for Business & Social Science |
| Math 215 | Applied Calculus I |
| Math 241 | Calculus I |
| Math 242 | Calculus II |
| Math 243 | Calculus III |
| Math 244 | Calculus IV |
| Math 251A | Accelerated Calculus I |

Eight courses qualified as a challenging course for three consecutive semesters (Fall 2005, Spring 2006, Fall 2006). See shaded cells in Figure 22.

Anthropology 215 Physical Anthropology
CEE 270 Applied Mechanics I
CEE 271 Applied Mechanics II
Chemistry 272 Organic Chemistry

ICS 211 Introduction to Computer Science II

Math 215 Applied Calculus I

Math 241 Calculus I

Philosophy 110 Introduction to Deductive Logic

Two 100 level courses had the largest number of registrants receiving D, F, W, and NC grades.

Math 100 Survey of Math Psychology 100 Survey of Psychology

Figure 22 Summary of Top Challenging Courses For the Period Fall 2005, Spring 2006, and Fall 2006

| | Fall 2005 | Spring 2006 | Fall 2006 |
|-------------------|-----------------------|-----------------------|-----------------------|
| Challenging | No. & Percent | No. & Percent | No. & Percent |
| Courses | of Registrations with | of Registrations with | of Registrations with |
| | D, F, W, NC | D, F, W, NC | D, F, W, NC |
| Accounting 201 | | | 127/37% |
| Accounting 202 | 111/52% | | |
| Architecture 235 | | 18/35% | |
| Architecture 235L | | 18/35% | |
| Architecture 271 | 23/33% | | |
| Anthropology 215 | 11/34% | 17/57% | 10/36% |
| Anthropology 215L | | 10/33% | |
| Art 175 | 89/34% | | |
| Art 265 | | 10/34% | 10/30% |
| Astronomy 110L | 23/31% | | |
| Botany 101 | | 24/32% | |
| Biology 171 | 154/36% | | |
| CEE 270 | 37/39% | 32/43% | 44/57% |
| CEE 271 | 26/37% | 25/41% | 19/49% |
| Chemistry 151 | 126/37% | 50/31% | |
| Chemistry 162 | | 182/44% | |
| Chemistry 272 | 93/33% | 36/34% | 109/36% |
| Chemistry 273 | | 75/34% | |
| Com 201 | | 26/31% | |
| EE 213 | | | 10/31% |
| English 252 | | 11/35% | |
| History 242 | 13/38% | | |
| ICS 111 | 32/49% | 22/34% | |
| ICS 141 | 24/56% | | 13/36% |
| ICS 211 | 20/40% | 11/38% | 15/37% |
| ICS 212 | | 11/34% | |
| ICS 241 | 21/46% | 23/55% | |
| Math 100 | = 11 12 //1 | 228/54% | |
| Math 140 | 63/36% | 47/44% | |
| Math 190 | | , | 18/32% |
| Math 203 | 39/43% | | 40/37% |
| Math 215 | 40/36% | 24/41% | 38/30% |
| Math 241 | 104/38% | 113/54% | 110/42% |
| Math 242 | 57/40% | 56/31% | |
| Math 243 | 45/34% | 32/39% | |
| Math 244 | 31/37% | 35/36% | 30/42% |
| Math 251A | 13/31% | 33.3070 | 12/36% |
| Music 287 | 12.0.70 | | 13/41% |
| NREM 203 | 78/41% | 64/33% | 12 , , 0 |
| Philosophy 110 | 58/55% | 78/57% | 52/53% |
| Philosophy 111 | 26/43% | 1 3/31 /0 | 29/37% |
| Physics 170 | 53/40% | 45/37% | 20,01,70 |
| Physics 272 | 00/40/0 | 51/63% | |
| Psychology 100 | 257/35% | 0 1/00 /0 | 260/38% |
| Sociology 251 | 20170070 | 14/30% | 200/00/0 |
| | 63/31% | 1-7/00/0 | |
| Spanish 101 | 63/31% | | |

Source: UH IRO, Special Study, October 2006 and August 2007

6.6 Student Engagement

In a 2007 National Survey on Student Engagement (NSSE) study, student involvement in learning communities was identified as a high impact activity related to student success in college. The study revealed that UH- $M\bar{a}$ noa first-year students were not as engaged in learning communities as the comparison groups.

Figure 23
First-Year Engagement in Learning Communities
UHM and Comparison Groups

| UHM | Arts | Carnegie Peers | Manoa Selected Peers |
|-----|------|-------------------|----------------------------|
| 14% | 21% | 20% | 16% |

Source: 2007 NSSE, UHM Executive Snapshot

The study also indicated that UH-Mānoa first-year students were not as involved in their educational environment as the comparison groups in four out of the five areas of effective educational practices:

- level of academic challenge
- active and collaborative learning
- student-faculty interaction
- supportive campus environment

Figure 24 shows these comparisons. The "+" symbol indicates that UHM's score is statistically higher than the respective comparison group, the "-" symbol indicates a score statistically lower than the comparison group, and a blank space indicates no significant differences.

Figure 24 also shows that UH-Mānoa seniors perform better than freshmen on all benchmarks. They also do significantly better than most of the comparison groups on academic challenge and enriching educational experiences and perform similarly to the comparison groups on active learning, student-faculty interaction, and supportive campus environment.

Figure 24 Comparison of UHM and Comparison Groups on Key Benchmarks of Effective Educational Practices

| | | | Co | roups | |
|---|------------|-----|------|----------|----------|
| | | | | | UHM |
| Benchmarks of Effective Educational Practices | Class | UHM | Arts | Carnegie | Selected |
| | | | | Peers | Peers |
| Level of Academic Challenge | | | | | |
| How challenging is your institution's | First-Year | 48 | - | - | - |
| intellectual and creative work? | Senior | 57 | + | | + |
| Active and Collaborative Learning | | | | | |
| Are your students intensely involved in their | First-Year | 38 | - | - | |
| educatioon? | Senior | 49 | | | |
| Student-Faculty Interaction | | | | | |
| Do your students work with faculty members | First-Year | 27 | - | - | - |
| inside and outside the classroom? | Senior | 39 | | | |
| Enriching Educational Experiences | | | | | |
| Do your students take advantage of | First-Year | 27 | - | | |
| complementary learning opportunities? | Senior | 45 | + | + | + |
| Supportive Campus Environment | | | | | |
| Do your students feel the college is | First-Year | 52 | - | - | - |
| committed to their success? | Senior | 53 | | | |

Source: 2007 NSSE, UHM Executive Snapshot

Because individual survey questions can be more descriptive than benchmark indicators, the NSSE Executive Snapshot report selects five questions where first-year and senior students scored the highest and the five questions where they scored the lowest in relation to students at the arts comparison group. The results of the highest performing areas are shown in Figure 25.

Figure 25
Highest Performing Areas
Percent of First-Year Students and Seniors at UH-Mānoa Compared to Comparison Groups

| | | Comparison Groups | | |
|--|-----|-------------------|----------|----------|
| | | | | UHM |
| | UHM | Arts | Carnegie | Selected |
| | | | Peers | Peers |
| First-Year Students | | | | |
| Had serious conversations with students of another race or ethnicity | 57 | 55 | 52 | 48 |
| Completed foreign language coursework | 37 | 28 | 26 | 28 |
| Wrote more than 10 papers or reports of fewer than 5 pages | 30 | 26 | 28 | 28 |
| Made a class presentation | 28 | 23 | 21 | 19 |
| Wrote at least one paper or report of 20 pages or more | 18 | 14 | 14 | 12 |
| Seniors | | | | |
| Completed foreign language coursework | 72 | 51 | 48 | 49 |
| Made a class presentation | 69 | 50 | 49 | 49 |
| Wrote at least one paper or report of 20 pages or more | 63 | 45 | 47 | 44 |
| Said the institution substantially encourages contacts among diverse peers | 54 | 43 | 43 | 39 |
| Completed a culminating senior experience (capstone, thesis, comp. exam) | 34 | 22 | 29 | 30 |

Source: 2007 NSSE, UHM Executive Snapshot

The highest performing areas for UHM first-year students were higher than the comparison groups on having serious conversations with students of another ethnicity, completed foreign language coursework, writing more than ten papers of fewer than five pages, making class presentations, and writing at least one paper of 20 pages or more.

The results of the lowest performing areas are shown in Figure 26. First-year students reported low engagement in co-curricular activities. They noted low involvement by the institution in providing social and academic support and in emphasizing studying and academic work. First-year students also indicated the low level of prompt oral and written feedback from faculty.

The following three areas were the lowest performing areas for first-year students and for seniors:

- engagement in co-curricular activities
- support for academic success
- institutional emphasis on studying and academic work

Figure 26
Lowest Performing Areas
Percent of First-Year Students and Seniors at UH-Mānoa Compared to Comparison Groups

| | | Comparison Groups | | |
|--|-----|-------------------|----------|----------|
| | | | | UHM |
| | UHM | Arts | Carnegie | Selected |
| | | | Peers | Peers |
| First-Year Students | | | | |
| Spent more than 5 hours/week participating in co-curricular activities | 20 | 30 | 33 | 32 |
| Said the institution provides substantial support for students' social needs | 33 | 44 | 45 | 44 |
| Received prompt written or oral feedback from faculty | 40 | 50 | 48 | 47 |
| Said the institution provides substantial support for academic success | 55 | 73 | 74 | 73 |
| Said the institution emphasizes studying and academic work | 67 | 78 | 81 | 80 |
| Seniors | | | | |
| Spent more than 5 hours/week participating in co-curricular activities | 18 | 21 | 30 | 28 |
| Said the institution provides substantial support for academic success | 49 | 61 | 64 | 62 |
| Discussed ideas from readings or classes with others outside of class | 54 | 62 | 61 | 61 |
| Asked questions/contributed to class discussions | 56 | 64 | 61 | 61 |
| Said the institution emphasizes studying and academic work | 67 | 76 | 78 | 76 |

Source: 2007 NSSE, UHM Executive Snapshot

See the NSSE Executive Snapshot 2007 at the end of this report for an elaboration of the above information.

7.0 Summary of Needed Improvement Reported by Students

7.1 Areas of Needed Improvement Reported by Senior Students

In a 2005 survey, graduating seniors identified areas needing improvement in support services. The top ten areas are as follows:

- Housing
- Campus security
- Food services
- Tutoring
- Financial aid
- Academic advising
- Career placement
- Registration procedures

7.2 Areas of Needed Improvement Reported by Residents in Campus Halls and Apartments

In a 2006 housing survey, students living in UHM residence halls and apartments identified a number of concerns relating mainly to maintenance and repair of residential halls and apartments.

- Condition of the rooms (pest control, maintenance of room, furniture)
- Condition of the halls and floors (kitchen, carpeting, laundry room appliances, study facility)
- Housing policies and procedures
- Other (parking, value compared to cost, meal plan)

Significant differences were found between students living among halls and among apartments and between Hawai'i and mainland residents. Oahu residents were clearly more satisfied with their experiences than other residents. They were less engaged in residential programs and activities compared to mainland residents. In contrast, mainland residents were less satisfied with their experiences but more active in residential life.

7.3 Rank Order of Needed Improvement Reported by Undergraduate and Graduate Students

In a 2006 student priority survey, undergraduate and graduate UH- $M\bar{a}$ noa students suggested the following in rank order to improve their educational experiences:

- Improve teaching methods of professors
- More access to financial aid
- Single location for accurate advising on graduation requirements
- More intellectually challenging classes
- Repair and improve classrooms
- More classes between 3:00 p.m. and 11:00 p.m.
- More small classes
- Schedule all classes to meet twice a week
- Easily available free tutoring services
- More places to study on campus

7.4 Areas of Needed Improvement Reported by Undergraduate and Graduate Students

In another 2006 satisfaction survey, undergraduate and graduate students suggested the following:

- Need accurate advising on requirements in major or graduate-study focal area
- Classes lack academic excellence
- I do not feel safe on campus

- Professors' teaching methods are not consistent with my learning needs
- Tuition is not a worthwhile investment
- The help I need to do well in my classes is not available
- Campus security should not have the power to make arrests on campus
- Improve the accuracy of information given by office staff
- Provide help for registration problems
- Need accurate and easily available advising on Gen Ed and graduation requirements
- More appropriate variety of food services on campus
- Improve classroom facilities

7.5 Summary of Needed Improvement Reported by Students

The most prominent suggestions for areas of needed change taken from numerous student survey results are summarized below. A number of suggestions made by leavers are similar to suggestions made by continuing students. These are represented by an asterisk (*).

- Quality of instruction *
- Challenging classes *
- Access to financial aid *
- Value for tuition
- Housing repair and renovation *
- Academic advising *
- Class scheduling
- Course availability *
- Classroom facilities
- More places to study
- Tutoring services
- Safety and security
- Variety of food services
- Parking
- More helpful faculty and staff *

High on the list of leavers were personal/social reasons for leaving such as:

- Wanted to be closer to home
- Felt too lonely

The need to engage students, faculty and staff in the following areas also stood out:

- Level of academic effort
- Faculty-student interaction inside and outside the classroom
- Academic and student support

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