Educational Stewardship Committee

Data Summary Report 2017-2018

April 2, 2018

Message from the Committee Chairs

One part of the charge to the Educational Stewardship Committee (ESC) is to safeguard the University's educational mission against possible impacts from the new IBB model. Toward that end, one of the mechanisms the Committee uses is to monitor certain data for trends that might (but not necessarily) indicate negative effects of IBB on the quality of students' education. This report provides summary information on trends in student credit hours, course enrollments, section sizes and general education courses. The report also contains a controlled-access link to the specific data sets, which can be filtered by academic unit, course type and course level. Primary credit for this report and the interactive data displays goes to the ESC's Subcommittee on Data Monitoring, led by Larry Granillo, in collaboration with Allan Strong and Joe Kudrle. The information in this report and the data displays are intended to inform decision making within and across the academic units, as well as in the Incentive-Based Budgeting (IBB) Steering Committee as it works on developing the parameters for IBB 2.0. On behalf of the entire Educational Stewardship Committee, we present this report to the University community.

Rosemary Dale and Brian Reed, Co-chairs, Educational Stewardship Committee

Introduction

This document serves as the summary report of the ESC's review of identified data parameters for 2017-18. This is the second such report from the ESC. The format has changed this year, with the full data report moved from multiple spreadsheets into an interactive dashboard provided by the Office of Institutional Research. Instructions for how to access and utilize the full data report are below.

This year marks the third full year under the IBB model. The full data report includes data on all three years under the IBB model, as well as data on the three years prior to the implementation of the IBB model. It is important to note that comparisons between IBB years and pre-IBB years should be made with caution, as the data used in these reports have improved considerably since the IBB model took effect.

Because there is no extended history to which to compare these data, we cannot yet know if the fluctuations we see from year-to-year are normal fluctuations or the result of a more targeted reaction to IBB. The committee will likely need to monitor the data for a few years before these trends are more apparent.

The data in the reports from OIR are meant to provide descriptive data for each unit. Because each unit each has its own unique circumstances, it is fair to compare them only to themselves. Unit-to-unit comparisons can be misleading without the proper context and are therefore discouraged.

This report should be viewed as only one method for studying the impact of IBB. These data points cannot measure the entire impact of IBB. Also, annual variation in these data do not imply nefarious motives. The ESC will discuss these findings and will investigate any questions or causes for concern, if

necessary. However, we continue to encourage faculty, staff, or academic units to bring any concerns they have to the ESC.

How to Access the Full Data Report

The findings discussed in the following pages are based on the full data report compiled by the ESC's Data Subcommittee and the Office of Institutional Research. The full data report for 2017-18 has been compiled as an interactive set of detailed charts and figures via Oracle BI Publisher. The link to the full data report can be found on the Education Stewardship Committee website. Current faculty and staff can access the report using their netid and password.

This short URL will take authorized users directly to the report: http://go.uvm.edu/d9val

The report consists of four pages that can be accessed via tabs at the top, with similar data points grouped together in charts and figures on each page. Each chart and figure can be filtered to focus on a specific measurement via the selection of horizontal text boxes at the top of each page. Click on one item in the text boxes to filter down to that item; click on the item again to turn off the filter. Filters do not persist across pages, but they do act on every chart/figure on the same page.

Notes/Observations for each College

The notes/observations below are descriptions of the results found when analyzing the full data reports. They are not meant to imply or insinuate that the observed effects are negative or worrisome. They are included here as a record of what the subcommittee found during its analysis.

University-Wide

The following are observed results for the university as a whole, including the seven undergraduate colleges/schools and LCOM. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

- Total student credit hours have increased by 7.6% since 2014-15.
- Student credit hours from undergraduate students increased by 7.9% in that time. SCH earned from graduate students increased by 17.2%. However, SCH earned from non-degree students decreased by 22.1% over that time.
- The share of standard course sections with small enrollments (≤ 20) has decreased over the last three years, with more course sections now being offered in the medium class size range (21-50 students).
- The average class size has increased from the previous year in all units except CALS and CESS.

College of Agriculture and Life Sciences

The following are observed results for CALS. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

- Total student credit hours have stayed roughly the same since 2014-15, with a total increase of 1.3% in that time.
- Student credit hours earned from both graduate students and non-degree students decreased over that time while SCH from undergraduate students increased.

• The number of diversity and sustainability general education course sections offered peaked in 2015-16. Since then, there has been a slight decrease in course sections offered. A drop in sustainability course sections is the cause of the decrease since 2014-15.

College of Arts and Sciences

The following are observed results for CAS. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

- Total student credit hours have stayed roughly the same since 2014-15, with an overall increase of 1.0% in that time.
- Student credit hours earned from graduate students have decreased each year since 2014-15 (for a total 13% decrease). Two-thirds of this comes from a decrease in the number of student credit hours that graduate students earned in courses at the undergraduate level (courses numbered 000-299).
- The number of both credit-bearing and non-credit-bearing lab sections offered has increased over the last three years. There is a one-year decrease in non-credit-bearing lab sections offered from 2016-17 to 2017-18.
- The number of diversity and sustainability general education courses have increased over the last three years. There is a one-year decrease from 2016-17 to 2017-18, but this is partially explained by a slight increase (n=5) in course sections in the 151-200 student range.
- In 2012-13, CAS was responsible for roughly 75% of UVM's diversity courses. In 2017-18, CAS is now responsible for 60% of diversity courses.

College of Education and Social Services

The following are observed results for CESS. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

- Total student credit hours have decreased since 2014-15, for a total decrease of 0.1% (roughly 200 SCH total). CESS is the only unit to see an overall decrease in SCH of any size over that time.
- Student credit hours from graduate students increased over that time. CESS earns more SCH from graduate students than any other college (though graduate student SCH for CNHS was similar to CESS in in 2017-18).
- The share of standard course sections with enrollments ≤ 20 have decreased over the last three
 years, with more course sections now offered in the medium class size (21-50 students).
 However, 64% of CESS standard course sections are still taught in the small class size range.

College of Engineering and Mathematical Sciences

The following are observed results for CEMS. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

 Total student credits hours have increased year-over-year since 2014-15, for a total increase of 19% over that time.

- There has been a substantial increase in the number of standard courses taught at the 31-50 student level (from 180 in 2015-16 to 245 in 2017-18). However, this has been partially compensated for by the decrease in the number of larger courses at the 51+-students level (77 sections to 60 sections).
- Average class size for standard courses has decreased from 38.4 in 2014-15 to 35.4 in 2017-18.
 There is a slight increase in class size from 2016-17 to 2017-18, however.
- Diversity and sustainability general education course offerings have both increased in every year.

College of Nursing and Health Sciences

The following are observed results for CNHS. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

- Total student credit hours have increased each year since 2014-15, with a total increase of 12% over that time.
- Student credit hours earned from graduate students accounts for about two-thirds of the total growth, with the largest increase coming between 2016-17 and 2017-18.
- CNHS is now in a virtual tie with CESS for the greatest number of student credit hours earned from graduate students.
- Graduate level standard course sections have seen an increase in average class size each year since 2014-15. The average class size has increased from 16.6 to 20.7 in that time.
- Diversity course offerings have increased steadily every year. CNHS offers no sustainability or quantitative reasoning courses.

Grossman School of Business

The following are observed results for GSB. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

- Total student credit hours have increased 19% since 2014-15. The bulk of this increase comes from undergraduate students.
- The average class size of standard course sections at the undergraduate level has increased from 44.1 in 2014-15 to 48.2 in 2017-18.
- The average class size of standard course sections at the graduate level has increased from 15.6 in 2015-16 to 28.6 in 2017-18. However, there are only ~40 sections offered by GSB at the graduate level each year, so fluctuations will be more noticeable.

Larner College of Medicine

The following are observed results for LCOM. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

 Total student credit hours have increased by 61% since 2014-15. That total increase is based on 52% from courses at the undergraduate level and 9% from courses at the graduate level.

- Over three years, the share of standard course sections with small enrollments (≤ 20) has decreased in favor of course sections with medium enrollments (21-50 students).
- There are no diversity, sustainability, quantitative reasoning, or foundational writing general education courses offered by LCOM.

Rubenstein School of Environment and Natural Resources

The following are observed results for RSENR. These observations are not meant to be an exhaustive record of all data points, but rather highlight interesting trends or notable data points. For more detail on all data collected by the Education Stewardship Committee, please see the appendix.

- Total student credit hours have increased by 7% since 2014-15. Most of the increase comes from undergraduate students.
- The number of diversity and sustainability general education course sections offered peaked in 2015-16. Since then, there has been a slight decrease in course sections offered. A drop in sustainability course sections is the cause of the decrease since 2014-15.

Appendix

Data Points Included in the Full Data Report

The findings discussed in this document are based on the full data report compiled by the ESC's Data Subcommittee and the Office of Institutional Research. Instructions on accessing this report are included above in the "How to Access the Full Data Report" section.

The full data report includes the following data points organized in pages as described below. Definitions for certain data points are included elsewhere in the appendix.

Total Student Credit Hours

This page contains the total student credit hours credited to each academic unit by the IBB algorithm since the IBB shadow year (2014-15). These data come directly from the "FYxx SCH" reports located on the "IBB Reports and Data" website hosted by the Department of Financial Analysis & Budgeting (https://www.uvm.edu/%7Eofabweb/Budget Building Materials/IBB).

This page only includes student credit hours credited to the seven undergraduate colleges/schools and the Larner College of Medicine. SCH credited to "Interdisciplinary" are not included. SCH earned by Global Gateway students or in courses originated by the Global Gateway program are also excluded.

These data can be filtered by academic unit, by the student level from which the SCH were earned, or by the course level from which the SCH were earned.

Course Section Totals

This page contains information on the number of course sections offered by enrollment size over time. Course sections are broken down into enrollment size groups ranging from independent courses (enrollment = 1) to courses with 200+ students. The average class size and the total number of students impacted by courses at each enrollment size are also included.

These data can be filtered by course type (independent study, non-credit-bearing labs, credit-bearing labs, and standard courses), academic unit, and course level.

Class Size Change over Time

This page shows changes over time in the proportion of course offerings by enrollment size. Once filters have been set, the pie charts show the share of course offerings by enrollment size for each year. The bar charts below show how each enrollment size group changed over one year or three years. These charts are helpful because they provide a look at change over time across one- and three-year timespans.

These data can be filtered by academic unit and by course type. To see how the offerings have changed at the university-wide level, the academic unit must be set to "UVM." <u>Filters must be set on this page or the data will be illegible and unreliable.</u>

General Education Course Totals

This page shows the number of general education course sections offered over time. For this report, general education courses are defined as those courses that meet the university's diversity, sustainability, quantitative reasoning, or foundational writing & information literacy requirements. The quantitative reasoning requirement was not added until 2017-18, so data were not available in prior years. An increase in QR courses in 2017-18 does not imply that these are new courses. It only means

that those courses were not labeled as "QR" before 2017-18. The total number of general education course section offerings by enrollment size are also included.

These data can be filtered by general education course type and academic unit.

Definitions

The following definitions relate to different data points and characteristics used throughout this document and in the full data report.

Class Types

Course sections are categorized by class type based on how the course is taught. This is determined by the "SCHD" attribute assigned to each course section in Banner.

Standard: A standard course is any course that does not qualify as a lab or independent study. Example SCHD codes for these courses are lecture, seminar, activity, studio, and more.

Credit-bearing Lab: A credit-bearing lab course is any lab course that provides 1 or more credit hours to enrolled students. Lab courses are those with the SCHD code of lab, discussion, or recitation.

Non-credit-bearing Lab: A non-credit-bearing lab course is any lab course that provides no credit hours to enrolled students. These courses are generally attached to a credit-bearing standard course of some kind. Lab courses are those with the SCHD code of lab, discussion, or recitation.

Independent Study: An independent study course is any course where students are expected to be working independently and generally do not meet in traditional classes. These courses have SCHD codes of internship, practicum, thesis/dissertation, or performance.

Course Level

Course sections are categorized by course level based on the course number as listed in the university catalog.

Undergraduate Level: Undergraduate level courses are those courses with a course number between 001 and 299.

Graduate Level: Graduate level courses are those courses with a course number of 300 or above. Students can earn graduate level credit from courses with a course number between 200 and 299 in some cases, but these are still marked as "Undergraduate Level" courses for the purpose of this report.

Course Sections

Cross-listed course sections are counted as one section with enrollments and student credit hours totaled across all listings. This ensures that a course section cross-listed between two 15-student sections is counted as one 30-student section for class size purposes. Sections cross-listed between multiple academic units are counted in only one unit to prevent double-counting. The unit is determined randomly.

IBB Data Years

The data in this report cover the years 2012-13 through 2017-18. The IBB model became "live" during 2015-16 (but see below). The breakdown of exactly which years are considered "IBB years" and "pre-IBB years" is below.

IBB years: The first year under full administration of the IBB model was 2015-16. The current year, 2017-18, is the third year under the IBB model.

Shadow year: Prior to the full implementation of IBB, a "shadow year" was administered. In this shadow year, budgets were still governed by the pre-IBB budget model, but data were collected in the same manner as they would be for the IBB years. This allows for a more direct comparison between IBB years and pre-IBB years. The shadow year was 2014-15.

Pre-IBB years: All years prior to the shadow year 2014-15 are considered pre-IBB years in this report. These years are included so that multi-year comparisons for the earliest IBB years can be made. However, one must be cautious when comparing IBB years to pre-IBB years due to the change in processes regarding entering data into Banner. In pre-IBB years, Banner data were not used in budget decisions and so were not as closely regulated. Since the advent of IBB, data entered into Banner is much more accurate.

General Education Courses

For the purposes of this report, general education courses are defined as those courses that meet the university's diversity, sustainability, quantitative reasoning, or foundational writing & information literacy requirements . Diversity, sustainability, and quantitative reasoning courses are labeled as D1, D2, SU, or QR in the schedule of courses. FWIL courses are those that meet one of three definitions: ENGS 001 course sections, HCOL 085 course sections, or those courses labeled as TAP in the schedule of courses. Course sections that are not so labeled as of add/drop each semester are not included in this report.

The quantitative reasoning requirement was not added until 2017-18, so data were not available in prior years. An increase in QR courses in 2017-18 does not imply that these are new courses. It only means that these courses were not labeled as "QR" before 2017-18.