The University of Vermont

Office of the Provost
and Senior Vice President

IBB 1.0 Evaluation
Executive Summary
November 7, 2017

- In March, 2017 the IBB Metrics Working Group proposed a set of metrics to help understand whether, and how well, IBB is working; those metrics were reviewed and approved by the IBB Steering Committee, the Provost, and the President.

- The recommended evaluative model included a three-pronged approach:
    1. Review of university-wide "Indicators of Success" Selected to Monitor Prominent IBB Concerns
    2. Qualitative Survey of the Deans
    3. Qualitative/Quantitative Consideration by the Budget Director, Vice President for Finance, and Chief Budget Officer

- The evaluation of IBB 1.0 was launched in July 2017

- IBB 1.0 Evaluation Results

    1. Indicators of Success

       While there is some year-to-year variability among the data/metrics identified as university-wide Indicators of Success[1], the data do not suggest that the most prominent IBB concerns have been realized (Attachment 1).

    2. Qualitative Survey of the Deans

       The survey responses from the deans (Attachment 2) suggest that the model has had a positive impact on their ability to execute their strategic plans, that it has encouraged innovation, that it supports interdisciplinarity, and that their collegial pre-IBB relationships remain intact.

    3. Qualitative/Quantitative Consideration by the Budget Director, Vice President for Finance, and Chief Budget Officer

       In their response (Attachment 3), the institution's senior financial leaders expressed confidence in the model and its outcomes thus far, underscoring that the model's management is as important as its design and characteristics, and the need to be mindful of the relationship between the growth in expenses (primarily compensation) and revenue sources.

[1] The Office for Institutional Research was unable to provide data for Metric 9 – Years to Promotion (Associate to Full)

348 Waterman Building, 85 South Prospect Street, Burlington, VT 05405
(802)656-4400 Fax: (802) 656-9220

Corrected 11.1.18

Attachment 1

IBB 1.0 Evaluation - University-wide Indicators of Success

Indicator	Pre-IBB Baseline FY13	IBB Model Design FY14	IBB Parallel Year FY15	IBB Year 1 FY16	IBB Year 2 FY17
Undergraduate Admit Rate	76.7%	77.6%	73.4%	70.8%	68.9%

The decline in the undergraduate admissions rate is a positive indicator, reflecting the increased quality of our applicant pool.

Undergraduate Yield Rate	14.2%	14.4%	13.0%	13.4%	16.1%

The recent increase in our undergraduate yield rate is a positive indicator, reflecting our ability to better attract qualified applicants.

First-to-Second Year Retention	85.5%	86.8%	85.9%	86.4%	86.2%

The first-to-second year retention rate has remained steady for the last decade; our goal is a retention rate of 90%.

Four-Year Graduation Rate	64.4%	64.3%	TBD	TBD	TBD

Data is not yet available to measure the four-year graduation rate from FY15 to FY17.

Graduate Degrees Awarded	560	439	473	502	493

Though graduate degrees awarded have not yet returned to the peak level in FY13, an increase of 12% since FY14 shows robust growth.

Number of New Graduate Programs	2	2	4	2	3

The growth in the number of graduate programs remains steady; the increase in FY15 -- the year in which the new and old budget models ran in parallel -- reflects a commitment to graduate education.

Number of Extramural Funding Proposals Submitted	1,168	1,151	1,234	1,179	1,147

Many factors influence the submission of proposals; the decrease of 21 submissions between the baseline year and FY17 is not significant, but suggests a continuing commitment to research.

Number of Extramural Funding Awards	699	614	673	598	716

Many factors influence the external funding awards; the increase of 17 awards between the baseline year and FY17 is not significant, but suggests a continuing commitment to research.

Extramural Funding Received	$ 106,186,887	$ 128,095,848	$ 132,775,625	$ 137,982,916	$ 123,176,671

Many factors influence the amount of external funding received; the increase of $17M in funding between the baseline year and FY17 is not significant, but suggests a continuing commitment to research.

Number of Cross-Department Extramural Proposals	427	416	428	383	344
	37% of total	*36% of total*	*35% of total*	*32% of total*	*30% of total*

Many factors influence the submission of cross-department (within the same college) proposals; the decrease in the number of cross-departmental propsals and their percentage of the whole is modest in the context of the highly variable external funding environment

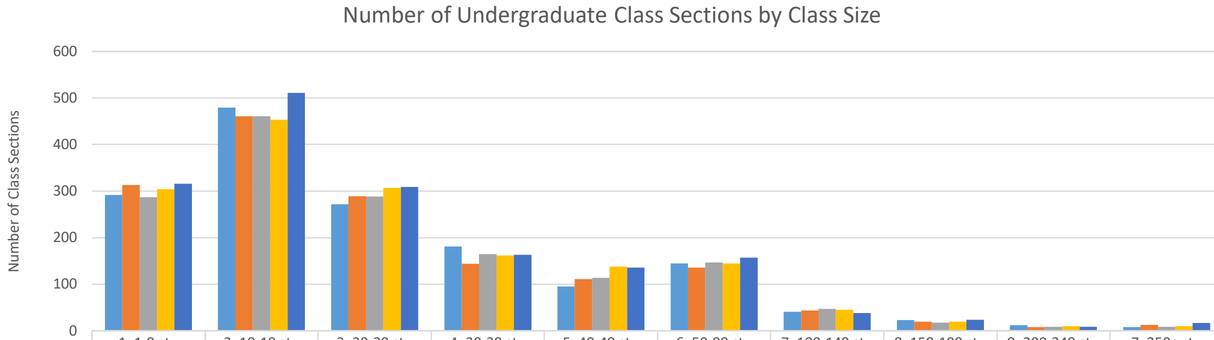
Number of Cross-College Extramural Proposals	163	176	178	160	145
	14% of total	*15% of total*	*14% of total*	*14% of total*	*13% of total*

Many factors influence the submission of cross-college proposals; the number of cross-college submissions and their percentage of the whole has remained steady.

% T-TT Faculty of FT Instructional Faculty (Headcount - No LCOM)	76%	76%	76%	73%	71%
% T-TT Faculty of Instructional Faculty (Headcount - No LCOM)	62%	62%	61%	57%	58%

There has been a decline in the percentage of T-TT FT instructional faculty; but UVM's position is still favorable in the context of a national mix that is closer to 30% T-TT and 70% NTT (including all instructional faculty, FT and PT).

Course Section Size Mix



	1. 1-9 stu	2. 10-19 stu	3. 20-29 stu	4. 30-39 stu	5. 40-49 stu	6. 50-99 stu	7. 100-149 stu	8. 150-199 stu	9. 200-249 stu	7. 250+ stu
Fall 2013	292	479	272	181	95	145	41	23	12	8
Fall 2014	313	461	289	144	111	136	44	20	8	13
Fall 2015	287	461	288	165	114	147	47	18	9	9
Fall 2016	304	453	307	162	138	145	45	20	10	10
Fall 2017	316	511	309	163	136	157	38	24	9	17

The class size mix has remained reasonably stable.

Curricular Innovation

New undergraduate majors: 5
New undergraduate minors: 13
New undergraduate certificates: 3
New doctoral programs: 2
New master’s programs: 5
New graduate certificates: 4
New continuing education certificate: 1
TOTAL APPROVED SINCE 2014: 33

As of October 2017 the CAC is currently reviewing:
New undergraduate majors: 1
New undergraduate minors: 1
New undergraduate certificates: 1
New doctoral programs: 1
New master’s programs: 2
New graduate certificates: 0
New continuing education certificate: 1
TOTAL UNDER REVIEW (Fall 2017): 7

While not identified as one of the "Indicators of Success" the rate of recent curricular innovation is noteworthy. As reported by the Faculty Senate's Curricular Affairs Committee.

IBB 1.0 Evaluation
Summary of Qualitative Survey Responses from the Deans
September 2017

1. How has the model impacted your ability to execute your strategic plan/highest priorities?

   Majority Sentiment:
   - Positive impact; enabled investments in new programs and faculty positions
   - Provided metrics that are useful in evaluating department/program cost and financial impact
   - Provides a flexible mechanism to make the realization of priorities more timely
   - Generated new interest in developing graduate programs

   Additional Responses:
   - Differential undergraduate SCH allocation inhibits investment in high-cost areas
   - Delay in receiving UG tuition (2-year rolling average) creates significant financial constraints; difficult to keep pace with increasing enrollments; facilities costs consume a significant portion of budget; no recovery of cost savings due to energy efficiencies

2. Does the model provide the incentives necessary to promote and sustain academic quality and excellence within your unit?

   Majority Sentiment:
   - No explicit incentives in IBB (no direct connection between incentives and academic quality), but IBB supports strategic plans which support quality and excellence; IBB allows for investment in growing departments to support and ensure quality
   - Kindled faculty engagement and empowered faculty to pursue new programs and reimagine existing programs, which translates to quality and excellence

   Additional Responses:
   - Challenges with smaller course offerings
   - Disincentive on hiring adjuncts that advance academic quality in some applied areas
   - No incentives for cost centers to promote or sustain academic quality

3. Has the model encouraged innovation and entrepreneurship within your unit?

   Majority Sentiment:
   - Yes, enabled investments in new programs and faculty positions

   Additional Responses:
   - Yes, but a related challenge is implementing innovations within the context of administrative systems and services that may be outmoded
   - Has not encouraged innovation or entrepreneurship within the cost centers

4. Describe the extent to which faculty and staff in your unit understand and engage with the model.

   Majority Sentiment:
   - Regular and continuing communication about the model occurs; understanding varies significantly; faculty and staff who want to engage with/understand the model do so
   - Requests for resources and discussions about new programs reflect an understanding of costs, opportunities, and the model

5. What impact has the model had on Interdisciplinarity within your unit?

Majority Sentiment:

- Has highlighted the success of interdisciplinary programs
- Has helped create ways to "credit" departments for their participation in interdisciplinary programs
- Was an expectation/part of the culture before IBB and remains so after IBB
- Has helped departments see the value in creating faculty lines that cross departmental boundaries; value in hiring dynamic faculty members who bridge disciplines
- Existing cross-college interdisciplinary graduate programs remain strong; robust development of new interdisciplinary graduate programs within college/schools; slower development of cross-college interdisciplinary graduate programs
- Some potential partners have been overly concerned about revenue flows

6. What impact has the model had on your unit's relationship with other units?

Majority Sentiment:

- Strong, positive pre-model relationships remain unchanged
- Fostered collaboration
- Some territorial SCH protection; increased competition to retain students within a college/school
- Positive effect on the interface between the Graduate College and the academic units

Additional Responses:

- Some instructional assignment decisions based on revenue versus quality
- Some challenges associated with pre-model cross-college programs (legacy issues)
- Much interaction/negotiating between units over F&A return

7. What other information about the model would you like to share?

- Not clear that the algorithms provide sufficient finances to support high-quality programs in the life sciences (which require subsidization)
- Graduate education is being subsidized by undergraduate tuition, if undergraduate tuition decreases, graduate programs will be impacted Cost center data not transparent; no system in place for constructive dialogue between the RCs and CCs
- Subvention worthy of attention; academic units that became "poor" under the prior model remain so under IBB with limited mobility
- Uneven landscape of subvention level among units has not been smoothed by the methodology of subvention draw-down
- Weighted SCH restricts investment in STEM and study abroad
- For units that are static, IBB may feel very similar to the prior model; the perception of the model's efficacy will vary greatly depending on what scenario a unit is operating under (growing, static, shrinking)
- Culture needs to change more that the model
- Service to the state is discouraged under IBB
- Campus infrastructure and processes seem rooted in a model more supportive of centralized budgeting
- Caution about using an expected external incentive (i.e., money) that often decreases a person's intrinsic motivation to do something
- Need greater oversight of programs coming through the curriculum review process; tougher questions about strategic need, fit with institutional goals; and how growth portfolio fits needs of state population
- PT faculty head-tax is an obstacle to developing new programs
- Discounted summer tuition for graduate programs (especially 12-month programs) is a problem
- Algorithm cost assessments exceed direct costs in some units; what is an appropriate ratio?

- It will be difficult to generate revenue at a pace necessary to cover space cost increases
- Summer: units tend to review courses individually versus as part of a portfolio of courses, no allowances made for slightly under-enrolled courses
- Supplanting an expense-only mindset with one of strategic investment is an ongoing challenge for many units
- 15% allocation of non-degree revenue to CDE is a perverse incentive for the overall health of UVM, CDE should be working on professional masters programs, not non-degree

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TO: Incentive-based Budgeting Steering Committee

FROM: David V. Rosowsky, Provost and Senior Vice President
Richard Cate, Vice President for Finance and Treasurer
Alberto Citarella, University Budget Director

DATE: November 7, 2017

SUBJECT: Incentive-based Budgeting Model 1.0 Evaluation

What follows is our collective response to the questions posed to us – the institution's senior financial leaders – as part of the evaluation of IBB Model 1.0.

Has revenue equaled or exceeded expense each year?

Revenues have exceeded expenses in each year of the new budget model. A budget model alone, however, does not garner this result. Of more importance are the strategic decisions that are made within the context of the budget model. IBB strengthened this dynamic at the University by decentralizing budget authority and responsibility. As a result, decisions supporting strategic vision and financial sustainability are now occurring simultaneously and at all levels of the organization – from senior management to unit-level decision makers. The reason, therefore, that the University's revenues have exceeded its expenses is not solely a result of the budget model, but rather of the decisions that individual units have made within the framework of the budget model.

Does the model make transparent areas of financial concern or opportunity? Does the model support the ability to plan and predict?

At both the university level and the unit level, the model illuminates areas of financial concern and opportunity. Below are examples of the kinds of analysis supported by the new budget model:

- Which revenue sources are growing most rapidly and upon which are Responsibility Centers (RC) most reliant?
- Which RCs could benefit from increased emphasis on a particular revenue stream? Which would be most susceptible to a decrease in a given revenue stream?
- How much is the University spending on space/deferred maintenance and how will that change over time? What impact does that have on individual units and the University as a whole?

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The model and its management support the ability to plan and predict in the following ways: (1) through the consistent and equitable application of the algorithms and their associated "rules," (2) the model has incented and supported discussions and data-based decisions within RCs about areas for growth and innovation as well as areas of de-emphasis, (3) the clarity of the algorithms allows units to evaluate different scenarios and calculate the impact of potential courses of action, and (4) planning is also enabled by the direct allocation of revenue to the RCs who must no longer wait for a central revenue allocation to pursue their strategies.

Again, the budget model alone does not enable transparency, predictability, and planning. These outcomes are a result of both the model and its management at all levels of the organization. RCs would not be able to forecast and plan effectively if the model's rules changed often or significantly, or if exceptions were granted frequently.

It is important to note however, that while the budget model is managed in a consistent and predictable fashion, not all scenarios are predictable and many external events are beyond the University's control. Preparing for and responding to this complexity was previously the responsibility of just a few university leaders. The new budget model distributes this responsibility across the University which should allow for a more comprehensive and thoughtful response.

Does the model provide incentives and/or enable strategic investment?

In all organizations, there are two types of units, those responsible for strategic direction and revenue generation (RCs), and those that provide support services (CCs). The answer to this question differs by unit type.

Responsibility Centers are responding to the financial incentives of a decentralized budget model. Their ability to plan and predict, their ability to acquire financial resources for investment through revenue generation or expense reduction, and the ability to re-appropriate funds into Fund 108 have all incented and enabled strategic investment. Some units have been more successful than others in this regard.

The Cost Centers do not have the ability to generate revenue to support strategic initiatives and investment but they are incented to make maximum use of their resources through annual budget reductions, the ability to re-appropriate funds into Fund 108, and the implementation of the Administrative Unit Review process, which has brought a higher level of scrutiny to the services they provide.

Does the model return equitable and consistent results to all RCs?

The design of the budget model coupled with its consistent application allows for equitable and consistent results for all Responsibility Centers.

The rules by which the model is managed have been consistently applied and have experienced few revisions in the first three years of IBB's operation. This approach has supported the internal predictability essential to effective planning.

One component of the model that may benefit from re-examination is the student credit hour weightings in Algorithm 1. The Delaware Data upon which the weightings are based is somewhat stale, and the data is subject to more significant swings that was originally anticipated. Over time, this could create inequities.

Does the model provide adequate avenues for success for all RCs?

All RC's have *adequate* avenues for success. Each unit has multiple levers to either increase revenue or decrease expense. Some units have found it more difficult than others to implement the changes necessary to access the opportunities provided by the model. In addition to internal or cultural constraints, external barriers present significant challenges for some units.

Over time, the University's economic realities will result in structural financial imbalances that will be difficult to overcome. For the last several years, salary and benefit growth - the University's largest cost - has outpaced the revenue generated from its largest revenue source, net undergraduate tuition. One temporary solution is to grow undergraduate enrollments, but even that growth is finite and comes with its own set of problems. There are three long-term options to address this imbalance: the University must either grow revenue from other sources substantially, significantly change its cost structure, or ensure that compensation and undergraduate net tuition increases grow in tandem.

Given that IBB is at its heart a decentralized budget model, the RC's now feel these economic pressures acutely. Some RCs have bridged this gap with growth in other revenue sources and/or in their share of SCHs. However, there are internal and external constraints on this growth and it cannot be replicated annually in perpetuity. Other RCs, those who have experience declining, or even constant, undergraduate SCH levels, have been unable to bridge the gap. For these units, annual budget reductions or structural changes have been necessary and will continue to be necessary until such time that they can generate significant revenue from other sources or that tuition increases and compensation increases come into alignment.

Despite every best IBB innovation, if the gap between compensation and undergraduate tuition growth continues at a rate beyond which units can generate other revenue to offset, over time each RC and the University as a whole will find itself in a financially unsustainable position.

Does the model provide RCs with sufficient ability to respond to change?

The model has demonstrated an ability to respond to the modest degree of change – mainly enrollment shifts – we have experienced since its implementation. The model's ability to support significant change will depend on the magnitude of the change, the structure of the units most impacted, unit cultures, and the extent to which units have planned for various contingencies.

Components of the model that support responsiveness to change include: (1) algorithms that include multi-year averages to moderate swings; (2) subvention which can be used to ameliorate sudden budgetary shifts, (3) the ability to build reserves in Fund 108, and (4) the budgetary authority vested in the RCs which enables their swift and strategic action.