

Overview of OSU New Education and General (or Shared Responsibility) Budget Model Academic Colleges Focus

OSU-Corvallis is implementing a new budget model with the FY18 E&G budget. The model was used to inform differential budget reductions for colleges in the FY18 budget and will provide the basis for the FY19 budget. This summary discusses some of the common questions about the model and reviews the principal components of the model, with a focus on issues of interest to academic colleges.

A. Some Common Questions

Why a new budget model?

OSU has used historical (or incremental) budgeting for much of the E&G budget, though budgeting based on specific activities (like Ecampus and summer teaching) have become a larger and larger portion of the budget in the last ten years.¹ This changing mix has raised a number of concerns over the last few years including:

- Deans, department chairs, central leadership, and the heads of major support units feel the present budget process is unclear, hard to understand, and not serving the interests of their units;
- Incentives for different kinds of activities (face-to-face teaching, Ecampus teaching, etc.) are not clear and not aligned;
- Deans are not clear on what program choices will change their budget picture;
- Central leadership lacks sufficient reserves to support strategic decisions, contribute to unit-level initiatives, and buffer units from unexpected downturns in enrollment or state funding;
- Small, incremental budget decisions are “clogging” the management and strategy-setting process for the Provost and VP for Finance and Administration;
- The mechanisms to balance the level of service desired by Colleges with the costs of those services (vs. other investments like new faculty or graduate remissions) are not clear;
- Much of the budget is distributed by formula or agreement, but there is not clarity on what responsibilities for costs go with which allocations.

During the 2014-15 fiscal year, University Budget Committee considered alternatives and proposed moving to a modified or hybrid Responsibility Centered Management (RCM) budget distribution model. A very preliminary version of that model was reviewed by the Provost’s Council and a full version was developed during 2015-16. This was reviewed and revised in discussions with the UBC, colleges, and departments in late FY16 and FY17 and a forward looking version developed for FY18. That FY18 model was used to inform differential budget reductions for the 2017-18 fiscal year and the model will be used as the basis for FY19 E&G budgets.

Why “Shared Responsibility”?

The University Budget Committee and the Provost’s Council did not feel that a pure Responsibility Centered Management² (RCM) budget model would fit OSU’s culture and needs. They endorsed a

¹ Appendix A provides a short summary of OSU’s E&G budget approaches.

² A brief summary of university budget models: <http://www.hanoverresearch.com/insights/6-alternative-budget-models-for-colleges-and-universities/?i=higher-education>

hybrid approach that used elements of RCM budgeting but that encouraged collaborative decisions about revenue generation, investments in services and academic programs, and the development of cross-unit collaboration. The model attempts to clearly show the relation of budget allocations to the work of academic delivery units; activities of service, support, and management units; and strategic, executive, and financial stability requirements.

What are the goals of the model?

The new budget process should:

- Link budget clearly to the programs and results delivered by academic units
- Be transparent and consultative, understandable to all parts of the University community, and consistent with OSU's commitment to shared governance
- Recognize that success in teaching, research, and outreach requires strong service, support, and facilities services
- Encourage financial decision making and entrepreneurship at the local level to align decisions with OSU's strategic goals
- Be equitable and predictable, to allow unit leadership to plan for the future
- Keep the university and all of its components financially healthy
- Define clear responsibilities for where different kinds of costs are managed so that decisions are made at the appropriate level
- Use metrics that are accurate, easy to understand, and easy to measure for all units and provide information and processes that help units manage their resources, advance their mission, and plan for the future.
- Be adaptable to changing circumstances and programs and minimize the number of special allocations or budget "deals"

What's going to be different for my unit?

The budget model is intended to provide clear links between budget allocations and academic program outcomes. Budget allocations to academic units are linked to measures such as student credit hours, research activity, or degrees, recognizing differences in the costs of program by level (baccalaureate, masters, doctoral) and by discipline. This approach should provide colleges tools for planning the revenue results of academic program and enrollment changes.

How will this change the resources my dean has?

The model would be phased in over a period of time and for most allocations uses three year averages of outcomes, so some changes might take a couple years to show up. If a college adds a new course delivery or increases graduation rates the changes will have an impact in the next fiscal year.

Does this mean now every unit has to make money?

No, the model specifically allocates a community support fund and establishes floor funding to recognize the cross-unit subsidies necessary to maintain a strong, comprehensive research university. The specific mechanisms of distributing these cross-subsidies are one component of the model that is still being adjusted.

How does this align with President Ray's comments that the next ten years have to be different than the last ten years?

Enrollment in Corvallis is going to slow as OSU approaches 28,000 students living in the community, the projections for Oregon high school graduates remain fairly flat, and competition for non-resident and international students increases nationally. Creating the revenues needed to meet our strategic aspirations will require new approaches.

The budget model has been developed to allow the creation of incentives for new ways of developing delivery of our degree programs and finding new participants in higher education. Some of those innovations could include:

- Growing our international student population
- Encouraging community college or transfer students to finish four-year degrees
- Improving retention and graduation rates for all students in all programs
- Providing pathways for adult learners to complete degrees
- Creating certificates or professional graduate training that meet critical needs for adult students and employers
- Expanding alternative delivery of our degrees and programs through E-campus or at off site locations

B. How does the model work for academic colleges?

Overview:

The model allocates budget for four major functional areas (Figure 1):

- **Academic program delivery:** This includes academic colleges, centers and institutes, and some teaching delivered by other units. These funds support delivery of instruction, research, and engagement. These activities generate most of the revenue that supports OSU.
- **Academic support, institutional operations:** These functions include academic support (the library, information services, graduate school, research administration, etc.); student and faculty support (student affairs, undergraduate studies, etc.); plant and facilities operations; and institutional operations (finance and administration, business centers, etc.). These services are essential to allow the colleges to deliver programs and for students and faculty to have the services they need to support their work.
- **Financial stability and commitments:** This includes commitments for debt service, contracts with the Foundation and INTO-OSU, reserves for mid-year salary increases, reserves for settle-up of tuition and returned overhead, charges paid to the city and other entities, and similar costs. It also includes contingency funds for revenue shortfalls or unexpected costs. These costs are necessary to maintain OSU's financial stability, bond rating, and obligations to partners. Most of these costs benefit multiple units across campus and are therefore budgeted centrally.
- **Strategic change and leadership:** Advancing the strategic plan requires some commitment of funds to start new programs, encourage new initiatives, and explore emerging opportunities.

The university also needs a pool of funds to support programs that are strategically important to the university, but they may not receive a sufficient allocation simply through the model.

In allocating funds some revenues are recognized as dedicated to specific units. These include targeted state funding; differential and professional tuition over base tuition; fees, sales, and service revenues; endowment match funds; and F&A recovery allocations. Other revenues are distributable and consistent principally of tuition and the allocation from the State's Public University Support Fund. The distributable funds for academic units are allocated based on several measures of productivity. The principal steps in the budget allocation (Table 1 illustrates the amounts for FY18) are:

- Revenues are estimated, including a reduction of gross revenues to fund tuition waivers, largely for undergraduate students. This institutional financial aid is the largest single "off the top" part of the budget.
- Central costs are budgeted from general revenues. These include a strategic and community investment reserve (cross subsidies would come from here), debt service, centrally paid assessments, reserves for various costs, and the Provost's and President's offices. This will vary from year to year (we add debt service for example) but right now is about 17% of revenues. For the time being, this will also include a reserve for any planned mid-year raises.
- Every unit gets their "dedicated" revenues. These include legislative earmarks, sales and service revenues, course fees, differential tuition, dedicated student fees, and F&A recovery dollars. These are pretty predictable from year to year (except for some of the legislative things). These are about 22% of revenues now.
- The revenues left are distributed 65% to academic units, 35% to service and support units. This is where in our version we would adjust the proportion that goes to service and support, rather than using the "tax" approach that a pure Responsibility Centered Management budget uses. If more or less investment is desired in academic or support units, this 65%-35% split would be adjusted.
- The 65% is distributed to academic units based on credit hours (by level), degrees granted, and research activities, with extra allocations for degrees to certain populations (international students, Pell recipients for example). There are certainly some complexities in the allocation formulas, but these are built in largely to recognize the diverse concerns that deans had because the portfolios of their colleges are so different. The allocations, however, are pretty stable and predictable from year to year and provide clear ways to plan the consequences of increases or decreases in funding if credit hours or degrees awarded change.
- The 35% for service and support units is distributed essentially on an incremental (though I think a better word is strategic) basis. Additional funds are allocated to the areas of highest need by the Provost and VPFA. If investments are required beyond the 35% allocation, the 65%-35% split has to be revisited (for example, the approved commitments to service and support units for FY18 would require a 64%-36% split---retaining the 65%-35% split would reduce funding to service and support units by about \$1.8M).
- The budget allocations to here are largely by formula or rule. However, the model is intended to be advisory to the Provost, Vice President for Finance and Administration, and the President. There are some programs, initiatives, or strategic directions that will need allocations outside of what the model distributes. The last step is an assessment of those needs and strategic distributions. Some of the funds set aside in the central reserves are allocated where strategic subsidies are needed, for example to support Centers and Institutes or the professional health colleges. These are defined as "floor" settings, though the precise mechanism of those adjustments need discussion. Allocations might be made to support program "start-ups" or

one-time initiatives in a unit. If the strategic needs are substantial enough, there may be years where a small additional amount is taken out of the formula allocations to academic and support units for the central strategic reserve.

Productivity Allocation

The distribution of the productivity allocation (the 65% of distributable revenues noted above) is the most important part of the budget allocation to academic colleges and the part that will change with changes in enrollment and graduation. The budget model differs from a standard RCM in that there is not a fixed dollar allocation per credit hour or degree awarded (except for Ecampus and summer). Rather, there is a pool of funds established for each measure and colleges receive a share of that pool based on their weighted share of that particular productivity metric. This helps stabilize the budget allocations when there are increases or reductions in particular revenue streams and helps keep a balance between allocations to colleges and allocations to service and support units.

There are six productivity measure pools:

- Alternative delivery and new participants: Right now this includes Ecampus allocations and summer term allocations, which are made at the present distribution of 80% of net tuition (the differential tuition revenues from Ecampus are allocated as “designated” funds to colleges). These are also structured to be “settled up” to actuals during the year. This category was created to allow for new programs or experimental approaches to building enrollment, in addition to Ecampus or summer. The idea was to make the model flexible enough to adapt to changes in program and strategy. There was a very clear consensus that the current allocation methodology be retained for Ecampus.
- The remaining five productivity measures are allocated through the pooled approach noted above. The values for the next fiscal year (upper-division credit hours for example) are the average of the two previous years and the projections for the current year. So the FY18 allocation is based on FY15 and FY16 actuals, and projections for FY17. Some of these values are weighted by discipline or by level, as noted below (an explanation of the weights is included in the following section). An open question in the model is whether there should be an adjustment to actuals in fall term once the actuals for the previous fiscal year are known (i.e. in fall, 2017 should we do a settle up for the FY18 budget using actual FY17 values since the initial budget uses projected FY17 values). Each of the five pools is assigned a percentage of the remaining dollars. These percentages were arrived at through looking at the mix of current college activity, the distribution of revenue sources for the distributable revenues, and extensive conversations with the University Budget Committee and the budget model working group. The five productivity pools are:
 - Degree foundations: 45% of the pool. This includes all lower-division credit hours (whether taught to majors or non-majors), upper-division credit hours taught to non-majors (service teaching), and graduate credit hours taught to non-majors. These are not weighted by discipline, but are weighted by level (lower-division 0.705, upper-division 1.017, graduate 2.049). Each college is assigned a percentage of the pool based on their share of the weighted credit hours. There is a small addition to this pool of 0.5% for Honors College credit hours taught.
 - Undergraduate completions: 25% of pool. This includes upper-division credit hours taught to majors (40% of total) and undergraduate degrees awarded (60% of total). These amounts are weighted by discipline and colleges are assigned a share of the pool

based on their proportion of the weighted metric. The degrees awarded includes undergraduate certificates and minors, which are counted as one degree per five certificates or minors.

- Graduate completions: 20% of pool. This includes graduate credit hours taught to majors (40% of total) and graduate degrees awarded (60% of total). These amounts are weighted by discipline and colleges are assigned a share of the pool based on their proportion of the weighted metric. The degrees awarded includes graduate certificates counted as one degree per five certificates. Degrees awarded in an interdisciplinary program are counted for the college of the supervising professor; a portion is also assigned to the interdisciplinary program through the Graduate School. It should be noted that graduate remissions are not budgeted separately—units would decide how much to budget out of their allocation here. Pharmacy's and Veterinary Medicine's professional degrees are included here. The weighting factors are high for these programs, and are not turned on in Table 1, as using them is effectively an allocation of general revenues from other programs to support the professional degrees (there is a strategic adjustment made for those colleges in this version). How to appropriately structure that strategic support for the professional school needs additional discussion.
- Research: 5% of pool. This is an additional allocation to encourage research activity, particularly for overhead-bearing grants, and is based on a unit's contribution to the total F&A recovery in the two previous years and current year. There was a great deal of discussion about how to recognize and reward research. While the 5% may seem small, this is in addition to the allocation of F&A recovery dollars (made as part of dedicated revenues) and the support for graduate students, many of whom are integral to research productivity in colleges.
- Special Populations: 4% of pool. It was recognized that some populations required additional support and created additional costs, and that there were some student populations for which an additional incentive was appropriate for strategic reasons. These include degrees to international students, degrees to Pell Grant recipients, and degrees to students from underrepresented groups. There is also a small additional allocation of 0.5% to recognize units that have courses and credit hours with their designator used as part of programs at Cascades.

The allocation of budget by these measures can be used to estimate the per metric budget allocation by college (recognizing they are an average over three years). These are shown in Table 2. Some allocations like Ecampus don't vary by discipline or by lower-division or upper-division level. Service credit hours are allocated at the same rate across colleges, though they differ by level. Undergraduate and graduate completion allocations vary by both discipline and level. The per credit hour allocations for some programs on-campus is lower than the Ecampus per credit hour allocation because there is also an allocation for degrees.

Note that there is an additional incentive in this approach for Ecampus, as the degrees awarded count includes degrees awarded to Ecampus-only students. This was left this way at present to encourage colleges to identify Ecampus programs that had a path to a degree or other credential.

These measures of budget per metric allow colleges to think about the net budget change they would see for different kinds of programs. Table 3 shows some hypothetical examples of how different program growth would generate net revenue to the college based on the measures in Table 2. It should be kept in mind that these measures change as the budget grows over time.

This approach also replaces the allocation of revenues from the INTO-Pathways program that has been included in the initial budget in the last few years. This is replaced by an incentive of additional funding for degrees awarded to international students. This is a different approach, as it recognizes all international students, not just those that come through the Pathways program. Colleges would see three components of budget for an international student who graduated (Table 4 shows a comparison of these to the INTO allocation model in the FY17 budget). There is a special population allocation for the international student degree, an allocation for the degree (as for any student), and an allocation for the credit hours that international students take on their way to a degree.

For a College like Business, where a large proportion of international students were from the Pathways programs, the amounts allocated are similar. For a college like Engineering, that has many other international students, the allocation is much larger. For a college like Science, that does service teaching to international students from Engineering (for example) the allocation is somewhat smaller, but Table 4 does not include the budget allocation due to that service teaching.

The goal in including an allocation unique to international students was to create an incentive similar in magnitude to that from the allocation of tuition from INTO Pathways students that had been used previously.

Discipline and Level Weights

The program weights are a significant part of the model. Early in the discussions it was recognized that weighting upper-division and graduate programs by cost of delivery was important, as those costs vary so widely. Originally, it was anticipated that we would use the weights identified by the Higher Education Coordinating Commission when they completed their work on revising the weights that had been used in the RAM or Resource Allocation Model. However, their efforts stalled so the Budget Office prepared an analysis of existing data to use. This is the same data that will be used by HECC.

Studies were included from the State Higher Education Executive Officers Association (using information from Illinois, Florida, and Ohio), the Ohio state system, the Florida State system, the Delaware study (which only is by discipline not by level), with comparisons to some scattered data from the Texas system and Montana. The data was most often a cost per credit hour or degree by CIP code. These were averaged and within each data set expressed as a ratio to the average cost of eight upper-division programs (Communications, Foreign Languages, English, Mathematics, Biological Sciences, Physical Sciences, Social Sciences, and Business). This approach was used as these majors are common and using an average damped any unusual year to year changes in a single major. An average weight was calculated from the combined data set for each CIP code and level.

These ratios were then weighted by college using the number of majors in each college in a particular CIP code. While it would be possible to allocate by individual major, this approach seemed more manageable in terms of data handling and less likely to encourage manipulation of how individual programs were identified by CIP code. These college average weights were then capped using an estimate of the contribution of differential or professional tuition to the program cost (i.e. it was assumed differential tuition paid part of the increased cost of programs with high weights, so the budget model weight should be appropriately reduced). Table 5 summarizes the weights used in the model.

The weights will be revisited regularly as distributions of majors change or new data (such as weights from the HECC) are available. The Budget Office can share details of the approach if anyone is interested.

Floor funding, strategic subsidies, community investment

At the beginning of the design of the budget model, there was a commitment that FY15 budgets would serve as a “floor”. In the two subsequent years, there have been central commitments to some colleges and allocations of raises to all colleges. The definition of the budget “floor” needs to be resolved shortly, as does the structure of allocations to the professional colleges. The current versions include a calculation of a floor based on FY15 budgets or a floor based on FY16 budgets (the default version is set to FY16).

Schedule

Another goal in using the budget model is to accelerate the development of the initial budget. Projections for a fiscal year can be completed at the end of fall quarter, based on historical trends and the actuals for that fall. This should allow a preliminary initial E&G budget to be distributed to units around April 1.

By the end of Fall quarter, the questions around floor funding and structure of allocations to professional schools will be resolved. There is also a discussion to be completed on the development of a space cost component in the model. This will not be part of the FY19 allocation, as it is pending completion and confirmation of space data for E&G buildings, but it may be an important strategic part of the budget model. This discussion will be completed by Spring term, 2018.

What’s next?

The University Budget Committee identified a subset of its membership to serve as a steering committee for the development of the model. The group includes Sherm Bloomer, Denise Lach, Dan Edge, and Lisa Templeton, and will include one or two deans, a business center representative, and an administrative unit representative when the UBC membership for FY18 is finalized.

The Budget Office will schedule meetings with the leadership teams in each college in Fall quarter to review the principles and structure of the model and the intended incentives it encourages. These meetings will be an opportunity to compile questions, concerns, and suggestions for review by the steering committee. Meetings with individual Schools or Departments will also be scheduled as they are requested. A presentation to the Faculty Senate will be scheduled at the first opportunity in Fall quarter.

Beginning in late August, there will also be meetings scheduled with Business Centers and appropriate college financial staff to review the technical workings of the model including data sources, weights, calculations and projections.

Figure 1: The four major functions supported by the distribution of the Education and General budget, with their approximate shares of the total revenue “pie” for FY17. The figure emphasizes that the resources in any given year are fixed and that each of the functions depends on the others. Academic programs create almost all of the revenue through the delivery of research and instruction, but need effective academic support and business operations to effect that delivery. Units rely on space supported by debt service, reserves to fund salary increases, and institution-wide support like insurance. Developing new sources of revenue often requires some strategic investment and sustaining broad, comprehensive research and teaching programs requires some subsidies from some units to others.

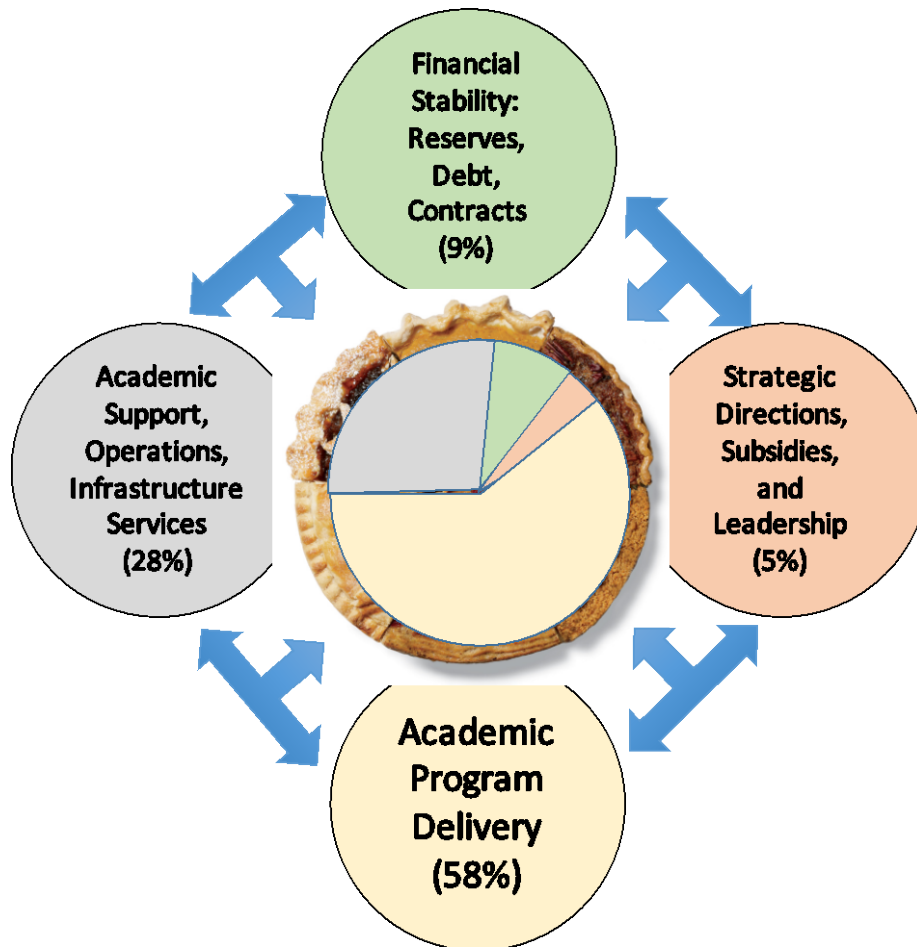


Table 1: The FY18 model budget (including any adjustments for budget floors, strategic investments, or cross-subsidies). This shows what the model allocates directly (this version does not set professional school weights for Pharmacy and Veterinary Medicine but rather allocates 95% of gross revenues to those Colleges and adjusts to an FY16 floor amount). The major components of the model are discussed in the text. The FY18 adjusted initial budget is shown at the right (“adjusted” just means the budget has all central resources that units got distributed out to the unit initial budget).

OREGON STATE UNIVERSITY														
FY2018 Education & General Initial Budget —Hybrid Model Development														
Budget Unit	Central Pools and Reserves and Executive			Academic Support, Plant, Institutional Operations	Academic Delivery						Net Dedicated Purpose Funds	Net Adjustments (Strategic & Subsidy)	FY18 Model Adjusted Initial Budget	FY18 Adjusted Initial Budget
	Central pools and reserves	OSU strategic funding	Executive and Community Support Funding		Degree Foundations plus Honors	Undergrad Completions	Alternative Delivery (Ecampus plus Summer)	Research	Strategic Populations and Cascades	Graduate Completions				
Enrollment Projection Reserve Pool	4,539,802	-	-	-	-	-	-	-	-	-	-	-	4,539,802	
Contingency Funds or Strategic Funds	(3,503,952)	3,000,000	-	-	-	-	-	-	-	-	-	-	(503,952)	
Community Support Fund	-	139,144	16,590,359	-	-	-	-	-	-	-	3,750,300	(20,479,803)	-	
Capital Renewal and Depreciation Funds	5,000,000	-	-	-	-	-	-	-	-	-	-	-	5,000,000	
Pools For Academic Unit Distribution	21,345,070	-	-	-	-	-	-	-	-	-	-	-	21,345,070	
Pools for Salary and Benefit Increases	4,025,000	-	-	-	-	-	-	-	-	-	-	-	4,025,000	
Contractual obligations	22,663,752	-	-	-	-	-	-	-	-	-	-	-	22,663,752	
Instruction & Research														
Agricultural Sciences	-	-	-	-	4,288,197	4,494,978	7,204,500	1,554,144	557,587	3,394,455	3,554,384	(139,841)	24,908,403	24,160,078
Business	-	-	-	-	5,908,686	4,997,721	3,528,000	5,455	1,217,132	1,452,105	3,290,973	(111,314)	20,288,759	20,462,422
Engineering	-	-	-	-	6,103,417	12,052,586	13,500,000	1,789,778	1,818,157	9,276,258	19,759,275	(289,783)	64,009,688	61,306,607
Forestry	-	-	-	-	1,049,666	1,264,557	1,250,000	383,593	197,506	1,319,411	3,135,635	581,441	9,181,808	9,355,600
Public Health & Human Sciences	-	-	-	-	4,985,616	4,693,787	3,650,000	733,354	1,012,577	1,937,659	2,240,046	(110,688)	19,142,350	20,440,194
Education	-	-	-	-	1,151,721	224,506	1,683,240	25,432	238,786	1,140,005	85,243	149,835	4,696,769	4,806,568
Liberal Arts	75,000	-	-	-	21,299,799	6,416,309	13,470,000	72,033	1,280,171	2,001,913	1,680,839	(289,783)	46,006,280	45,894,131
Earth, Oceanic & Atmospheric Sciences	10,875	-	-	-	2,753,624	915,667	1,345,000	1,807,108	181,237	1,482,982	3,680,855	1,724,136	13,901,404	14,831,995
Pharmacy	-	-	-	-	151,839	-	80,000	164,858	66,586	3,595,296	5,085,810	3,526,278	12,670,668	12,737,398
Science	-	-	-	-	23,804,634	5,351,932	6,100,000	621,455	745,408	3,355,692	2,207,148	(260,108)	41,926,161	41,127,158
Veterinary Medicine	-	(48,085)	-	-	228,018	-	-	127,241	33,804	2,433,978	15,572,432	6,880,064	25,227,452	24,909,417
Summer Session	-	-	-	543,544	-	-	-	-	-	-	-	-	543,544	543,366
University Honors College	-	-	-	-	1,084,925	759,382	1,000	-	-	-	1,258,938	(12,006)	3,092,240	2,839,964
Extended Campus	-	-	-	-	-	-	-	-	-	-	18,786,975	-	18,786,975	18,786,975
Research Equipment Reserve	-	-	-	-	-	-	-	-	-	-	3,296,000	-	3,296,000	3,296,000
International Programs	-	-	-	1,984,749	124,798	-	-	-	2,217	-	2,615,904	(826)	4,726,841	4,706,010
Interdisciplinary Graduate Programs	-	-	-	-	324,884	-	323,943	-	56,621	1,547,467	-	(14,658)	2,238,257	833,083
University Libraries	-	-	-	11,848,591	-	-	-	3,421	-	-	2,727,064	(22)	14,579,054	14,579,074
Research (Centers / Institutes / Programs)	-	-	-	-	-	-	-	862,854	-	-	2,065,679	8,859,356	11,787,890	11,354,618
Instruction & Research Total	-	37,790	-	14,376,884	73,265,154	41,171,425	52,135,683	8,150,726	7,407,790	32,937,140	91,043,201	20,492,079	341,012,543	336,970,658
Service, Support, and Management:														
Office of the President	20,000	8,368,275	-	-	-	-	-	-	-	-	-	-	8,388,275	8,388,275
University Relations & Marketing	26,585	-	-	3,956,388	-	-	-	-	-	-	-	-	3,982,973	3,982,978
Provost	-	1,441,801	-	-	-	-	-	-	-	-	-	-	1,441,801	1,441,801
Provost - Pass-through	5,900,000	2,048,710	-	-	-	-	-	-	-	-	-	-	7,948,710	7,948,710
Enrollment Management	-	-	-	6,771,559	-	-	-	39,153	-	-	2,916,022	(255)	9,726,479	9,724,870
Undergraduate Studies	-	-	-	3,170,104	1,671,870	-	128,387	6,526	3,067	-	20,706	(11,715)	4,996,885	5,000,049
Academic Affairs	-	-	-	3,633,943	-	-	-	-	-	-	9,260	-	3,643,203	3,643,184
Information Services	150,000	-	-	17,124,170	-	-	-	9,723	-	-	2,491,673	(63)	19,775,503	19,774,816
Graduate School Administration	1,030,000	-	-	2,086,156	-	-	-	-	-	-	1,391,044	-	4,507,200	4,507,186
Outreach & Engagement	-	-	-	1,504,917	-	-	-	18,541	-	-	-	(121)	1,523,338	1,522,413
Research Administration	427,000	-	-	3,865,548	-	-	-	-	-	-	3,289,389	-	7,581,937	7,582,890
Student Affairs	-	-	-	6,687,747	-	-	-	9,464	-	-	1,089,170	(62)	7,706,320	7,705,927
University Business Centers	-	-	-	10,580,919	-	-	-	-	-	-	1,644,694	-	12,225,613	12,221,894
Finance and Administration	40,000	-	-	23,298,769	-	-	-	-	-	-	1,988,240	-	25,327,009	25,322,352
Facilities Services	-	-	-	13,402,933	-	-	-	-	-	-	4,522,909	-	17,925,842	17,924,002
Risk Management	-	-	-	3,421,286	-	-	-	152	-	-	37,040	(1)	3,458,477	3,458,422
Capital Planning and Development	-	289,720	-	1,239,578	-	-	-	-	-	-	822,347	-	2,351,645	2,369,486
Energy Operations	-	-	-	8,250,938	-	-	-	-	-	-	4,167,296	-	12,418,234	12,402,374
Service, Support, and Management Total	-	7,883,305	11,858,786	108,914,955	1,666,541	-	128,387	83,560	3,067	-	24,397,791	(12,276)	154,929,444	154,921,629
Total Educational and General Budget	54,069,672	11,060,239	28,449,145	123,291,839	74,931,695	41,171,425	52,264,070	8,234,285	7,410,857	32,937,140	119,191,292	(0)	553,011,659	553,011,959

Table 2: Estimates of per metric budget allocations by college for the major productivity measures (FY18 budget values).

	Degree Foundations (Lower-division and service)				Undergraduate and Graduate Completions					Cascades Incentive
	\$ per LD Foundation SCH	\$ per UD Foundation SCH	\$ per Grad Foundation SCH	\$ per Honors SCH	\$ per UG Degree	\$ per UG SCH	\$ per GRAD SCH	\$ per Doctoral Degree	\$ per MS Degree	Cascades
Agricultural Sciences	\$ 132	\$ 190	\$ 383	\$ 112	\$ 5,908	\$ 84	\$ 119	\$ 17,141	\$ 16,042	\$ 33
Business	\$ 132	\$ 190	\$ 383	\$ 112	\$ 3,935	\$ 56	\$ 74	\$ 24,527	\$ 10,034	\$ 33
Engineering	\$ 132	\$ 190	\$ 383	\$ 112	\$ 5,918	\$ 84	\$ 112	\$ 18,150	\$ 15,182	\$ 33
Forestry	\$ 132	\$ 190	\$ 383	\$ 112	\$ 5,918	\$ 84	\$ 110	\$ 14,902	\$ 14,819	\$ 33
Public Health & Human Sciences	\$ 132	\$ 190	\$ 383	\$ 112	\$ 3,773	\$ 54	\$ 97	\$ 17,684	\$ 13,120	\$ 33
Education	\$ 132	\$ 190	\$ 383	\$ 112	\$ 4,009	\$ 57	\$ 63	\$ 14,854	\$ 8,579	\$ 33
Liberal Arts	\$ 132	\$ 190	\$ 383	\$ 112	\$ 4,131	\$ 59	\$ 90	\$ 18,763	\$ 12,173	\$ 33
Earth, Oceanic & Atmospheric Sci	\$ 132	\$ 190	\$ 383	\$ 112	\$ 5,920	\$ 84	\$ 120	\$ 17,403	\$ 16,271	\$ 33
Pharmacy	\$ 132	\$ 190	\$ 383	\$ 112	-	-	\$ 120	\$ 18,369	\$ 16,274	\$ 33
Science	\$ 132	\$ 190	\$ 383	\$ 112	\$ 4,876	\$ 70	\$ 110	\$ 17,576	\$ 14,804	\$ 33
Veterinary Medicine	\$ 132	\$ 190	\$ 383	\$ 112	\$ -		\$ 120		\$ 16,274	\$ 33
University Honors College	\$ 132	\$ 190	\$ 383	\$ 112	\$ 4,640					
Interdisciplinary Graduate Programs	\$ 132	\$ 190	\$ 383	\$ 112			\$ 116	\$ 16,899	\$ 15,624	\$ 33
Research Centers / Institutes	\$ 132	\$ 190	\$ 383	\$ 112						
Average values	\$ 132	\$ 190	\$ 383	\$ 112	\$ 4,785	\$ 69	\$ 114			\$ 33
	Alternative Delivery (Summer and Ecampus)				Strategic Populations			Research		
	Undergrad Ecampus	Graduate Ecampus	Graduate Summer	Undergraduate Summer	International	URM	Pell	Per F&A Dollar		
Agricultural Sciences	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Business	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Engineering	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Forestry	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Public Health & Human Sciences	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Education	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Liberal Arts	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Earth, Oceanic & Atmospheric Sci	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Pharmacy	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Science	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Veterinary Medicine	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
University Honors College	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Interdisciplinary Graduate Programs	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		
Research Centers / Institutes										
Average values	\$ 150	\$ 323	\$ 329	\$ 145	\$ 3,803	\$ 4,437	\$ 951	\$ 0.21		

Table 3: Brief examples of estimating revenue changes from changes in enrollment or graduation numbers using the FY18 budget values.

	Model Dollars from Degrees	Model Dollars from Credit Hours	Total Model Dollars
New professional graduate program, 20 graduate per year, 2 cohorts of 20 at a time	\$ 118,402	\$ 129,701	\$ 248,103
New online undergraduate degree, 100 enrolled per year taking 6 credits each, 10 graduates per year	\$ 59,201	\$ 89,856	\$ 149,057
New baccalaureate synthesis course (300-level), 100 students per year	\$ -	\$ 57,072	\$ 57,072

Table 4: Budget dollars linked to international students. In the new budget model all international students are counted not just INTO pathways students. This is why the total dollars are higher for some colleges, as they had large numbers of other international students. These values are only for the teaching to majors and the degrees. There is also revenue allocated to the teaching college for the lower-division and service courses that these students take from colleges outside their majors.

Dollar allocations related to international student:					
	Model Dollars from International Incentive	Model Dollars from Base Degrees	Model Dollars from Credit Hours	Total Model Dollars	FY17 INTO
Agricultural Sciences	85,568	265,095	220,622	571,284	200,137
Business	581,859	948,994	1,038,012	2,568,864	3,057,138
Engineering	1,003,992	3,154,055	2,469,898	6,627,945	2,682,197
Forestry	39,932	151,400	84,648	275,980	24,123
Public Health & Human Sciences	72,257	167,214	135,578	375,049	404,598
Education	5,705	13,721	8,432	27,857	12,708
Liberal Arts	167,332	281,573	332,484	781,389	1,340,127
Earth, Oceanic & Atmospheric Sciences	39,932	139,713	100,594	280,238	145,086
Pharmacy	26,621				1,544
Science	154,022	450,541	347,262	951,825	1,387,379
Veterinary Medicine	15,212	65,094	34,678	114,984	694
Summer Session					-
University Honors College					9,502
Interdisciplinary Graduate Program	-	-	41,620	41,620	666,777

Table 5: Weights by discipline and level used in the budget model. These are derived from the Delaware Study (discipline variation only), a study by the State Higher Education Executive Officers Association (data from Illinois, Ohio, Florida), the Florida State System, the Ohio State system, with some comparisons to data from Texas and Montana. The values are ratios to an average of eight upper-division disciplines (highlighted in green). The top table is by program CIP code, the bottom table is a weighted average for colleges based on numbers of majors in various programs in the college.

		Ratios to UD 8-field average – With Delaware, Ohio State Avg				
CIP Levels		LOWER	UPPER	GRAD I	GRAD II	Total
Average Across All Disciplines if Given		0.705	1.017	2.049	2.868	1.101
01	Agriculture, agriculture operations	0.782	1.399	2.932	3.126	1.541
03	Conservation	0.632	1.399	2.520	2.527	1.310
05	Area, Ethnic, Cultural Studies	0.713	1.229	2.932	4.237	1.167
09	Communications	0.632	0.937	2.308	2.768	0.908
11	Computer and Information Science	0.632	1.229	2.060	2.938	1.171
13	Education	0.782	0.937	1.460	2.527	1.160
14	Engineering	1.039	1.649	2.732	3.126	1.848
16	Foreign Languages and Literature	0.713	0.937	2.060	2.527	0.896
19	Home Economics	0.498	0.798	2.932	3.126	0.782
23	English Language and Literature	0.782	0.877	2.308	2.169	0.890
24	Liberal Arts and Sciences, Humanities	1.154	1.473	2.520	1.871	1.358
26	Biological Sciences, Life Sciences	0.782	1.085	2.932	2.938	1.158
27	Mathematics	0.632	0.937	2.308	3.126	0.778
30	Multi/Interdisciplinary Studies	0.848	1.085	2.932	4.237	1.138
31	Parks, Rec, Leisure, Fitness Studies	0.632	0.798	1.677	2.527	0.797
38	Philosophy and Religion	0.632	0.877	2.932	2.768	0.822
40	Physical Sciences	0.848	1.399	3.399	2.938	1.170
42	Psychology	0.498	0.798	2.932	2.938	0.857
44	Public Administration and Services	0.848	1.085	1.460	3.126	1.276
45	Social Sciences and History	0.498	0.877	2.308	3.126	0.794
50	Visual and Performing Arts	0.902	1.399	2.932	2.938	1.308
51	Health Professions, Related Sciences	0.782	1.229	2.308	3.126	1.747
51.20	Pharmacy			9.434		
51.24	Veterinary Medicine (DVM)			14.151		
52	Business Mgmt, Administrative Services	0.632	0.937	1.677	4.933	0.954
54	History	0.498	0.877	2.308	2.938	0.795
College ratios weighted numbers of major by CIP code and level						
		Lower Division	Upper Division	Master's	Doctoral	DVM PharmD
	Agricultural Sciences	0.738	1.381	2.730	2.917	
	Business	0.616	0.920	1.707	4.173	
	Education	0.782	0.937	1.460	2.527	
	Forestry	0.686	1.404	2.522	2.536	
	Pharmacy			5.871	3.126	9.434
	Science	0.784	1.140	2.519	2.991	
	Graduate School			2.659	2.875	
	Liberal Arts	0.625	0.966	2.071	3.193	
	Veterinary Medicine			2.308	0.000	14.151
	Engineering	0.924	1.530	2.583	3.088	
	PHHS	0.608	0.882	2.232	3.009	
	CEOAS	0.686	1.384	2.769	2.961	
	Average All Programs	0.739	1.181	2.335	2.972	11.282

Appendix A: A brief history of E&G budgeting for the Corvallis campus. Activity-based budgeting usually uses something delivered, like a credit hour or an indirect cost dollar. Performance budgeting usually links to outcomes like degrees. Responsibility Centered Management budget models usually use a mix of the two to distribute non-earmarked funds.

Fiscal year	Budget Type	Notes
Through FY02	Largely historical or incremental	F&A recovery and summer session distributed on activity basis (<5% of the budget), beginning in FY03 Ecampus started to be allocated by activity
FY03 through FY06	Budget Allocation Model (BAM)—largely activity based, an early RCM effort grown out of a bad budget year	Used credit hours, research dollars, enrollments to allocate non-earmarked revenues. Flawed initial structure and required large subventions each year. Budget committee did a review in FY04 through FY06 on total revenue and cost allocation by unit---to identify where budgets should be “rebased” or realigned
FY07 through FY10	The “BAM” was abandoned, back to more incremental again, but increments informed by the rebasing analysis. Ecampus, summer, indirect costs were activity based and about 11% of budget in FY07	Discrete increments were added to Business, PHHS, Science, and CLA as a result of the “rebasings” productivity analysis each of these years. The revenue-expense attribution for E&G continued to be done but was not used to adjust annual budgets beyond this
FY11	Last year of rebasing; summer, Ecampus, indirect cost, and INTO tuitions allocated by activity, 15% of budget	This was the last year of discrete additions to the four colleges based on the rebasing productivity analysis; outside of the revenues allocated by activity, most budgeting returned to incremental allocations
FY12 through FY15	Incremental budgeting with activity distributions as noted above	By FY15, the INTO, Ecampus, Summer, and indirect cost activity allocations were 24% of the budget; University Budget Committee worked on planning for a more productivity based model
FY16	Incremental and activity budgeting	The first version of the new model based on productivity and activity was run to compare to FY16 and used to adjust assumptions
FY17	Incremental and activity budgeting	Incremental decisions were compared to the model and major academic investments aligned with direction of the model
FY18	Productivity and activity budgets	The model was used to make differential reductions in the adjusted FY18 initial budgets.
FY19	Productivity and activity budgets	The productivity-activity model is used as the principal guide for E&G allocations