

## CWU New Budget Model – Overview (Rev. 1.16.18)

This narrative is intended to explain the sources of data, calculations, and the reasoning behind the new budget model. Technically speaking, RCM (responsibility centered management) and ABB (activity based budgeting) are very different things. RCM is a management philosophy that decentralizes decision making to the “responsibility centers,” which in our case are the four academic colleges where decisions concerning academic offerings and instructional resources are made. ABB is the budgeting methodology that determines the resources that are available to the responsibility centers; in our case, this is mostly based on student credit hours, as well as the proportionate share of expenses that are needed to run the university and support the colleges’ missions.

### 1. REVENUES

One of the core concepts of Activity Based Budgeting (ABB) is the allocation of revenues to the colleges. There are two main sources of revenue in the State/Tuition Fund (149): tuition (net of tuition waivers), and the state allotment. Fund 149 is the only fund at CWU that is subject to the revenue allocation within the ABB model; in all other funds, including 148 (summer & fees), revenues are recorded at the college and/or department as they are earned.

#### a. Tuition Revenue

Tuition Revenue is broken down into two main categories: graduate tuition and undergraduate tuition. Both are subject to the same allocation methodology (at least in the current model - they could be treated differently in the future), which is as follows for Fiscal 2018 tuition revenue allocation purposes:

- (1) At the point of census of each quarter (10<sup>th</sup> day of classes), a report is generated by Institutional Effectiveness (IE) containing the student credit hours (SCH) associated with all students taking state funded classes (non-state funded classes would include continuing education, summer school, etc.) in one of the four colleges. Census is the standard point at which data is gathered at the university. Although we realize that there could be changes after census due to add/drop period, those changes are not reflected in the model. The model only includes SCH related directly to the four colleges. There are some SCH generated outside the colleges (Library, Student Success, Douglas Honors College, etc.) that still generate revenue to be allocated, but the SCH for these areas are excluded from the model..Although the SCH are excluded, the actual tuition revenues are included in the distribution of tuition revenues. So, the SCH percentage for each college is applied to the total net tuition revenue, which includes these SCH generated outside the college.

SCH data for three terms, gathered at census, is then aggregated (previous spring, previous fall, current winter). The relevant attributes for each student generating SCH are as follows:

- Student ID
- Academic Term
- Academic Career (Graduate/Undergraduate)
- Student Major College (or Undeclared)
- Waiver Amount by Category

Each student is identified as either a graduate student or an undergraduate student. The student is further identified by major and is then associated with one of the four colleges (or undeclared). The SCH taken by each student is associated with a college and those SCH are then split 70/30: 70% of the SCH given to the college of instruction and the remaining 30% given to the student's college of administration (the student's major college). In cases where a student has more than one major, the 30% of that student's SCH will be divided equally between each major and associated with the appropriate college. Minors are not part of the model. If a student is undeclared, 100% of the SCH are given to the college of instruction. SCH are then totaled by college based on this 70/30 assignment. Based on the final distribution of SCH as described above, a percentage is assigned to each college (extended to six decimals). There is a separate percentage for graduate SCH and undergraduate SCH.

An example of this summary data for the FY18 model using a pivot table in Excel looks as follows (note: academic term codes are used instead of labels – 1163 = Spring 16, 1169 = Fall 16 and 1171 = Winter 17):

Student Type: **GRADUATE**

Term	CAH Total SCH	CB Total SCH	CEPS Total SCH	COTS Total SCH
1163	553.00	431.80	2,080.10	2,237.10
1169	647.40	350.00	2,137.60	2,163.00
1171	583.60	211.20	2,198.80	1,993.40
<b>Grand Total</b>	<b>1,784.00</b>	<b>993.00</b>	<b>6,416.50</b>	<b>6,393.50</b>
<b>Percentage</b>	<b>11.445435%</b>	<b>6.370694%</b>	<b>41.165715%</b>	<b>41.018156%</b>

Student Type: **UNDERGRADUATE**

Term	CAH Total SCH	CB Total SCH	CEPS Total SCH	COTS Total SCH
1163	30,463.39	19,719.40	40,087.18	57,188.04
1169	33,569.24	20,837.53	39,991.71	57,284.53
1171	31,958.50	20,563.40	40,343.10	55,412.00
<b>Grand Total</b>	<b>95,991.13</b>	<b>61,120.32</b>	<b>120,421.98</b>	<b>169,884.57</b>
<b>Percentage</b>	<b>21.454464%</b>	<b>13.660675%</b>	<b>26.914872%</b>	<b>37.969989%</b>

It is important to note that this calculation is being performed in winter quarter for the **upcoming** fiscal year, which means that the enrollment and corresponding tuition revenues must be estimated. An estimate is prepared for both graduate and undergraduate tuition revenue for the upcoming year using an existing tuition prediction model, and each college's percentage is multiplied by the total graduate and undergraduate tuition estimate in order to forecast the upcoming year's budget. For FY2018 we assumed a 2.2% tuition increase for all types of tuition affecting the projected Fund 149 funds. For example, assume the graduate tuition estimate is set at \$5,407,627. To determine the graduate tuition revenue for CAH, take

the CAH percentage of graduate SCH (11.445435%) and multiply by the graduate revenue estimate (\$5,407,627):

CAH graduate SCH %	11.445435%
<u>Graduate revenue estimate</u>	<u>x \$5,407,627</u>
CAH graduate revenue allocation	\$618,926

Doing this calculation for each college will complete lines labeled “A” of the ABB model (Exhibit 1). The same calculation is used for undergraduate tuition (also labeled “A”).



2018 RCM Model  
Narrative Exhibit 1.pdf

**b. Tuition Waiver**

Tuition waivers are allocated the same way as SCH. Waivers are attributed to each student and divided by the number of SCH taken in each college. For example, if a student was taking two 5-credit classes in different colleges, the waiver would be allocated proportionately to each college using the same 70%/30% split as the SCH. A total tuition waiver estimate is generated, again by an existing tuition prediction model, and each college’s percentage of total waiver is applied to the total tuition waiver estimate. For FY2018 we assumed that modest controls (we expected very minor changes would be made since a longer lead time is required to make more significant changes, particularly moving through the governance structure) were applied to the existing waiver policy, and for planning purposes held the rate steady at just under 21% of gross tuition. This completes the lines labeled “B” on Exhibit 1.

**c. State Funding**

State funding includes two major components: the tuition backfill is an amount that is calculated by the legislature to make up for the tuition revenues lost due to the required 20% tuition discount taken over FY16 and FY17, and the traditional allotment provided to support the institution (a portion of wages, benefits, etc.). As important as it is for us to understand all the mechanisms the state uses to fund our university, for all intents and purposes it is considered as a lump sum to be allocated to the four colleges, unless there is a specific purpose directed by the legislature (for example if the legislature approved funding for a new airplane for the aviation department, those funds would go directly to buy an airplane, the funds would not be allocated across all colleges).

The Fiscal 2018 state funding is an estimate based on the midpoint in a range of likely outcomes, and will remain that way until the legislature completes an operating budget. The most significant impact on CWU’s state allotment will typically be how much, if any, of the wage and benefit increases will be funded, as well as any new policy initiatives. When the state finalizes its budget, an adjustment will be made to this line and the net impact will flow to the colleges. The difference between the estimate and what actually gets approved will be applied to each

college the same way that the original allocation of state funds is applied – based on total revenue % of each college. Since the state produces a two-year (biennial) budget, Fiscal 2019 will not need to be an estimate unless there are changes in the supplemental budget

State funds will be allocated to the colleges based on the blended percentage of total SCH. Blended means the sum of all SCH, both graduate and undergraduate using the 70/30 methodology discussed above. The blended percentage is the total percentage of SCH for each college including both graduate and undergraduate SCH.

The state funding is shown in Exhibit 1 on lines labeled “C” (backfill) and “D” (Allotment).

**d. Equipment/Technology Reserves**

The final line (labeled “E”) in the revenue section of Exhibit 1 is related to the reserve funds. This line actually consists of four different funds that are being established for the first time in many years. All of these reserve funds will be allocated to the colleges based on the blended percentage of total SCH (blended means the total of graduate and undergraduate SCH as described above). We attempted to drive as much funding as possible to these reserves due to the overwhelming need for equipment and technology replacement, which likely exceeds \$30 million. The original amount set aside was \$750k each fund, but we could not afford that amount this year. Going forward, these funds will be maintained at a level that fits the financial circumstances (what we can afford) with the current year amounts desired.

- i. Instructional Equipment Fund (currently \$500,000) – this fund will be established and spent in FY2018 to address the university’s backlog of aging instructional equipment (e.g. lab equipment, pianos, etc.). The funds will be held by the Provost’s Office and a prioritized spend plan will be established by the “Space and Equipment” subcommittee of the Budget Executive Committee.
- ii. Instructional Technology Fund (currently \$500,000) – this fund will be established and spent in FY2018 to address the university’s backlog of aging instructional technology (e.g. Crestron projectors in classrooms). The funds will be held by the Provost’s Office and a prioritized spend plan will be established by the “Space and Equipment” subcommittee of the Budget Executive Committee.
- iii. Desktop Replacement Fund (currently \$500,000) – This was started in FY2017 with one-time funding of \$750,000 and will require ongoing funding of \$500,000 per year to maintain the 4-year replacement standard. This fund will be established and spent in FY2018 based on a process managed by the IS Department using desktop tag numbers. The funds will be held by the Provost’s Office.
- iv. Institutional Reserves (currently \$327,349) – This fund will begin to provide additional institutional reserves (a.k.a. emergency funds) to meet the target identified in the Reserve Policy (policy #2-10-105). This fund will be established but not spent in FY2018, as the intent is to add it to the existing institutional reserves.

**e. Total Revenues**

The net of all of the above activity (add graduate and undergraduate tuition, subtract graduate and undergraduate tuition waivers, add state funding, subtract equipment/technology reserves) represents Total Revenues. The percentage of Total Revenues for each college will be the main driver for the majority of the allocations below. It is important to note that the tuition and waiver amounts are estimates. Any variance from these estimates (positive or negative) will be provided to the Provost to be deployed or recovered at his/her discretion in support of ASL.

**2. ALLOCATIONS**

After establishing Total Revenues for each college (and the corresponding percentage of the total revenue generated by all colleges), the model allocates non-college expenses consisting of those functions that are part of the Academic and Student Life (ASL) division, reporting to the Provost (known as Academic Support), as well as the support functions outside of ASL that report to the President (known as Institutional Overhead). All of these functions will continue to be provided expense budgets based on the traditional incremental budget methodology (last year's budget plus wage and benefit increases).

**a. Academic Support**

The Academic Support functions all have a direct association to the core function of the university (instructing students), but are not part of the four Colleges. These functions are labeled "G" on Exhibit 1 and include the:

- Provost Office
- Associate Provosts Office
- School of Graduate Studies & Research
- Library
- Office of International Studies and Programs
- Student Success
- University Centers

The budgeted expenses for these functions, less a 2% efficiency target (labeled "H" on Exhibit 1, see also 4c) are all allocated to the Colleges based on each College's percentage of Total Revenues (see 1e). The total of all the Academic Support allocations (less efficiency target) are labeled "I" on Exhibit 1.

The 2% efficiency targets are mandatory reduction for each of these units in FY18.

Note: College efficiency targets have been set at 2.5%. This provides a buffer in the case of actual revenues coming in under forecasted revenues. These funds will be eligible to carry forward ensuring greater opportunity for strategic investments in future years.

**b. Institutional Overhead (excluding Facilities)**

The Institutional Overhead functions perform activities to help ensure the success of the university's core function and/or comply with state and federal regulations. These functions are labeled "J" on Exhibit 1 and include the following divisions and sub-divisions:

- President's Division
  - President's Office
  - Athletics
  - Public Affairs
  - Inclusivity/Diversity
  - University Advancement
- Operations Division
  - Operations Office
  - Facilities Management (see 2.c below)
  - Information Services
  - Institutional Effectiveness
- Enrollment Management Division
  - Admissions Office
  - Enrollment Management Office
  - Student Financial Services
- Business & Financial Affairs Division
  - BFA Office
  - Accounting
  - Financial Planning & Analysis
  - Human Resources
- Central Budgets (Enterprise Wide Expenses)

**c. Administrative Fee**

The administrative fee has been in place since 2011 and is typically charged as a percentage of total wages and benefits to self-support units (not funded by tuition or state allotment) on campus in order to offset the underlying overhead costs related to these units, but are paid for by the state & tuition fund. For some units, the administrative fee is a flat fee or a negotiated fee depending on the type of fund activity. For example, the Housing & Dining operations do not have their own payroll department, or their own police department, so they pay this fee to contribute to the cost of maintaining these function. The administrative fees offset the total cost of institutional overhead and are labeled L on Exhibit 1.

The budgeted expenses for these functions, less the 2% efficiency target (labeled "K" on Exhibit 1, see also 4c), are all allocated to the Colleges based on each College's percentage of Total Revenues (see 1.e). The total of all the Institutional Overhead allocations (less efficiency target) are labeled "M" on Exhibit 1.

**d. Facilities Management**

The expenses related to the Facilities Management department are allocated differently than both the Academic Support and the Institutional Overhead functions. If total enrollment continues to increase, our physical infrastructure will reach its capacity at some

point. The model was designed to allocate the Facilities Management department to ensure that the deployment of our physical assets is done with the same amount of transparency, rigor, and efficiency as our monetary assets.

Based on the results of the academic space mapping exercise undertaken by the Facilities Management department in 2015 (to be updated in 2017), the total cost of the Facilities Management department is allocated based on each college's percentage of assignable space deemed "department controlled". This includes office space, conference rooms, classrooms and labs. Space deemed "registrar controlled" classroom and lab space is not part of the calculation, nor are any common spaces that are not considered "department owned". Changes to spaces, either acquiring space or giving up space, will be brokered through the "Space & Equipment" subcommittee of the Budget Executive Committee.

The calculation, once space is designated, is as follows: Each College is given its proportionate share of the assignable square footage that is "department owned" represented as a percentage of the total, and this percentage is multiplied by the total Facilities Management department budgeted expenses. These amounts are labeled "K" on Exhibit 1.

### **3. NET REVENUES AFTER ALLOCATIONS**

#### **a. State & Tuition (149)**

After Total Revenues have been assigned, and the Academic Support and Institutional Overhead have been allocated, what is left is "Net Revenues After Allocations" (labeled O on Exhibit 1). This is the total amount of Fund 149 (State/Tuition Fund) that remains to pay the expenses of the Colleges. This is simply Total Revenues (labeled F on Exhibit 1) minus Total Allocations (labeled N on Exhibit 1).

But this is not the only source of funding for the Colleges. A significant amount of funding comes from Fund 148 (mostly from Summer school and miscellaneous fees – technically referred to as "Local General Funds").

#### **b. Local General (Fund 148)**

The term "Local Funds" is taken from the State fund accounting system, and it refers to funds that are raised and held locally, as opposed to allotted and held centrally in the State system. Since the main sources of Fund 148 are generated through fees (summer school fees, mandatory fee, course fees, etc.) and not the state allotment or tuition, they are considered "Local".

The ABB model is not applied to Fund 148, but the monies raised by each unit are funds that are available to either pay for the expenses directly related to the revenues, support other areas of the University (e.g. administrative fee when applicable, non-college summer allocations, etc.), or may be used for any other legal purpose in support of the Unit. Some

of these revenues are restricted to a specific purpose (e.g. course fees) and are restricted for that purpose; however, if not otherwise specified, these funds are truly unrestricted.

Local General funds are included as a component of the model because there is so much interplay between Fund 148 and Fund 149 that it is nearly impossible to consider the budgetary picture of a College without including both funds. Again, the Local General funds are NOT derived via an SCH calculation, but are considered as part of the total funds available to each College needed to run the College.

For purposes of the RCM Model, the amounts labeled “P” on Exhibit 1 are the actual revenues for Fiscal 2016 in CatPlan (our budgeting and forecasting software). This acts as a proxy for FY18 Local General Revenues and excludes course fees and mandatory fees, which are dedicated to a specific purpose and are not available for general use to the colleges.

- c. **Total Available Resources** The sum of State & Tuition Revenue + Local General Revenue equals the “Total Available Resources” for each college (labeled Q on Exhibit 1). For purposes of the model, this means that these are all of the state/tuition, summer, and other fee revenues available to be deployed to fund college expenses (again, not including course fees and mandatory fees). Some colleges have access to additional funds through the CWU Foundation or Services and Activities Fee, etc., but those are not part of this model.

#### 4. ESTIMATED COLLEGE EXPENSES

One of the main differences between the traditional incremental budgeting model and the ABB model is that the colleges are not told what their expense budgets are. Rather, the revenues are allocated based on the model previously described, and it is the college’s responsibility to create an expense budget within the revenues earned per the model. It is therefore important to note that the expense budgets presented in the model are not the final expense budgets for FY18, as those need to be developed by the college Dean in consultation with their respective budget committees. The figures in the model for expense budgets are estimates only.

- a. **State & Tuition (149) expenses**

The State & Tuition expenses shown in the model (labeled Q in Exhibit 1) are an estimate for what would have been each college’s budget under the incremental budget method - a proxy for the budget that will ultimately be developed by each college Dean in consultation with their respective budget committee. There are a few key assumptions in these estimates, the most significant related to the faculty and staff wages. At the time the model was created, estimates were used for wage increases for faculty, non-represented classified staff, and exempt employees, as well as the benefit rate set by the State.

- b. **Local General (148) expenses**

The Local General Expenses shown in the model (labeled R in Exhibit 1) are an estimate based on the FY16 actual spending, which was determined would be a better approximation of what would happen in FY18 than a FY17 forecast.

**c. Efficiency Targets**

Efficiency Targets in the model reduce the overall funding requirements for each division by either 2% for allocated functions (institutional overhead or academic support) or 2.5% for each college. The concept for efficiency targets stemmed from the fact that the university has “slack” in the funding system, most notably in the form of salary and benefit savings. The reason this exists is due to the fact that we fully fund each and every position (at the appropriate FTE percentage if not full time) as if each position will be filled for the entire year. There is no reduction of funding for vacancies, and the general past practice has been to use this extra funding for things other than wages and benefits (which is not the intent of the funding in the first place), or to not spend the money and it is “swept” back to the university reserves. In many cases in the past, and including FY17, this has exceeded 5% of a division or college budget. The efficiency target effectively anticipates and budgets this vacancy savings.

In addition, incentives to intentionally champion efficiencies in the allocated departments (institutional overhead & academic support) in the form of leveraging technology, process improvement, etc. have not worked in the past because the department that actually realizes an efficiency is not compelled to reduce their budget in the next fiscal year; it has simply been redeployed somewhere else.

Efficiency Targets are not necessarily achievable in perpetuity, certainly not at the same rate for every area, so they should be evaluated annually as the “slack” is removed from the system. Efficiency Targets for institutional overhead and academic support are labeled K on Exhibit 1. Efficiency Targets for the colleges are labeled S on Exhibit 1.

**d. Total Potential Combined Expenses**

Total Potential Combined Expenses refers to the addition of both Fund 149 (state & tuition fund) and Fund 148 (local general funds) and represents an estimate of the total college expenses for both of these fund groups. This is labeled T on Exhibit 1.

**5. SUBVENTION**

The term “subvention” is sometimes assumed to be a new term, invented for RCM/ABB, but it is not. The literal definition of subvention is ‘the provision of assistance or financial support’. In context to the ABB model, one definition of subvention is a means to ‘achieve balance between local optimization and investment in the best interest of the university as a whole’. We use subvention in our model as one of the final calculations, to adjust the distribution of revenues in a way that recognizes we are a better institution when all of our colleges have a chance to succeed from a budgetary standpoint. The same is true within each college where subvention happens among academic departments (although the model does not go down to the department level).

Subvention is one of many tools available to the Provost to ensure financial viability or incentivize change for a college, with the best interest of the entire university in mind. For

FY18 the Provost decided to fully eliminate the budget deficit for the College of Arts & Humanities, recognizing a commitment to achieving the efficiency target. Funds were moved from the other three colleges to CAH based on their proportionate dollar value of net margin prior to subvention.

For example: before subvention, the four colleges had net margin as follows:

FY18 Model Income Statement	College of				Academic Unit Total
	College of Arts & Humanities	Education & Prof Studies	College of Business	College of the Sciences	
Total Potential Fund Expenses	14,866,123	19,052,672	9,585,672	23,463,833	66,968,301
Provost Subvention	-	-	-	-	-
Margin (Revenues - Direct Expenses)	(1,562,489)	426,879	906,243	1,379,619	1,150,252

This picture shows CAH with a deficit of \$1,562,489 and the other three colleges with surpluses. The proportionate share of surplus is calculated to determine how much of the \$1,562,489 will come from each college as shown in red below:

FY18 Model Income Statement	College of				Academic Unit Total
	College of Arts & Humanities	College of Education & Prof Studies	College of Business	College of the Sciences	
Total Potential Fund Expenses	14,866,123	19,052,672	9,585,672	23,463,833	66,968,301
Provost Subvention	-	-	-	-	-
Margin (Revenues - Direct Expenses)	(1,562,489)	426,879	906,243	1,379,619	1,150,252
		15.74%	33.41%	50.86%	

This means that CEPS will contribute 15.74% of the required subvention amount to CAH, CB will contribute 33.41%, and COTS will contribute 50.86%. Subvention is labeled U on Exhibit 1.

## 6. NET MARGIN

Net margin is the amount of revenue that is left over after all expenses to run the college have been paid *per the model*. In this case, the model is using forecasted numbers from late winter quarter 2017 plus a proxy for Local General Revenues and expenses (2016 actual results), and includes several key assumptions about rates of pay and benefit costs. So what each college ends up budgeting for FY18 is really dependent upon each dean and how much revenue is available to them, as well as the cost structure that is in place at the end of FY17. Net margin per the model is labeled V on Exhibit 1.

## 7. CARRYFORWARDS

Carryforwards is another way of saying unspent budget. CWU has historically treated unspent budget in a variety of ways – at times the units were allowed to keep unspent funds, and there have been times when all unspent budget was swept back to the general fund and added to the institutional reserves (this is how the reserves have been built over time). Starting in FY16, we allowed the four colleges to keep their unspent budget up to 5% of their total operating budget,

and then any remaining unspent budget from the non-college units was divided between the Provost and the President. One very important point is that there had to be actual net margin (revenue minus expense) to distribute. In FY16 the state & tuition fund underspent the budget by \$1.6M, but there was only \$600k net margin available because actual revenues were lower than budgeted. The same phenomenon happened in FY17: the state & tuition fund underspent by about \$1.6M, but actual revenues were lower than expected by the same amount. Hence, there will be no net margin to carry forward.

With the introduction of this new model, the policy changes again because the four colleges are allocated all of the revenues. Therefore, they will retain all net margin, so long as a carryforward use plan exists. .

## 8. NEW PROGRAM INCENTIVE FUND

Along with the model, a plan was established to incentivize new programs. A loan fund of \$500,000, backed by the Provost's 148 accounts, will be made available to the Colleges to fund start-up costs for new programs, with preference given to those programs that bring new students to the university. Applications must be submitted in order to be considered for funding, including a full business plan with a 5-year cash flow analysis and loan repayment schedule (not to exceed three years).

During the two-year incubation period, the net revenues generated by the new program will not be reduced by Academic Support and Institutional Overhead charges (in other words, the college gets to keep 100% of the net revenues generated by the program for two years).

Payments on the loan will be garnished from future revenue allocations based on the repayment schedule in the business plan, regardless of the outcome of the program. An application form will be developed and a financial analyst will be available to develop the cash flow analysis.

We are currently defining the application and application process.

## 9. RESEARCH INCENTIVES

A research incentive fund was also created to encourage growth in grant and research activity. This fund will be created by using Fiscal 2016 Provost indirect funds as a baseline. When indirect funding exceeds the baseline due to successful grants submitted by the Colleges, 50% of the difference will be provided to the Colleges, prorated based on total Grant Revenue growth over the prior year.

**Example:** Assume Provost indirect revenues in FY16 were \$100,000. At the end of FY19, the Provost received \$180,000 in indirect revenues. Half of the increase (\$40,000) will be available to the colleges. Assume COTS and CAH were the two colleges that increased grant revenues, by \$500,000 and \$250,000 respectively. COTS would get two thirds of the \$40,000 incentive fund that year, and CAH would get one third.