

December 3, 2020

Tuition Scenarios for FY22

The table on the following page estimates the operating surplus or deficit for Corvallis Education and General operations for 2021-22 given different assumptions about tuition increases and state funding. The Governor's Recommended Budget (GRB) corresponds to the middle row of the table.

Revenue assumptions include:

- Enrollment estimates:
 - Resident undergraduates -1.3%
 - Non-resident undergraduates -4.4%
 - Graduate and professional flat
 - Ecampus up 5%
- State revenues as noted in rows
- Other revenues
 - F&A recovery from grants—inflationary increment
 - Interest up 2%
 - Sales and service revenues up 2%

Expense assumptions include:

- Unclassified salary increases of 1.5 % (mid-year raise)
- Classified salary increases of 4.75% as per contract
- Graduate assistant and student increases of 2%
- Benefits increases of 3% to 6% depending on employee group
- Increases in other costs at CPI inflation of about 2%
- Additional mandated cost increases in insurance, building operations and debt service
- Strategic investment in the OSU Foundation, enrollment management and other critical areas

The table shows, for a range of state funding and undergraduate tuition increases, what the percentage increases are (these are calculated from rates for new students in fall, 2020), what the annual dollar increase is, what the estimated increase in tuition and fees is, and the gap between estimated revenues and expenses for two cases. There is one revenue case in each scenario but two expenses cases. The first case (the lower gap between revenues and expenses in each case) assumes that the current year expenses are the base for estimating FY22 expenses. The second case assumes that the expense base rebounds somewhat towards FY20 (last year) expenses (calculated as 60% of FY20 spending, 40% of FY21 spending). The Budget Office considers the latter case more realistic at this point.

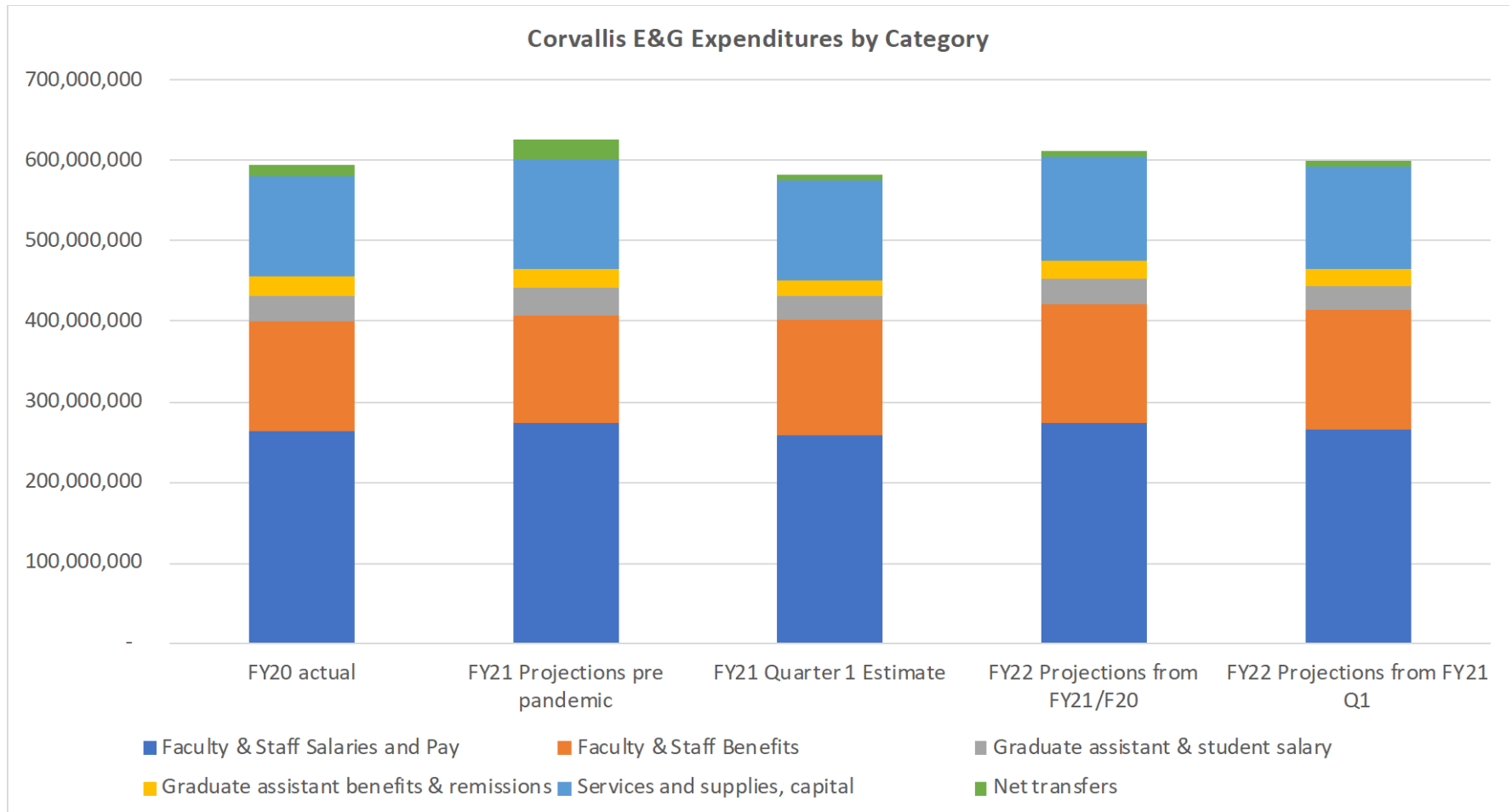
FY2021-22 Corvallis Tuition scenario (rate change the same for Cascades)

Tuition Scenario Table (Corvallis campus): Precise percentage increases in each box are different than the nominal increases in per credit hour charges at the top because there is a fixed zero-credit hour charge that is part of undergraduate tuition and rates are rounded to the nearest whole dollar. Middle column scenario set at estimated overall continuing service level increase. Rates are applied to resident undergraduate (including Ecampus) and non-resident undergraduate tuition rates.

	Scenario A: Resident 0.0%, Non-resident 0.0%	Scenario B: Resident 3.5%, Non-resident 3.5%	Scenario C: Resident 4.1%, Non-resident 4.1%
State funding change year over year: 0%	Resident undergraduate: 0.00% Non-res undergraduate: 0.00% Financial aid increase \$0.8M Surplus or (deficit): \$(11M) to \$(22M) \$0 annual increase residents \$0 annual increase non-res	Resident undergraduate: 3.55% Non-res undergraduate: 3.41% Financial aid increase \$1.4M Surplus or (deficit): \$2M to \$(10M) \$360 annual increase residents \$1035 annual increase non-res	Resident undergraduate: 3.99% Non-res undergraduate: 4.00% Financial aid increase \$2.0M Surplus or (deficit): \$4M to \$(8M) \$405 annual increase residents \$1215 annual increase non-res
State funding change year over year: -4%	Resident undergraduate: 0.00% Non-res undergraduate: 0.00% Financial aid increase \$0.8M Surplus or (deficit): \$(17M) to \$(28M) \$0 annual increase residents \$0 annual increase non-res	Resident undergraduate: 3.55% Non-res undergraduate: 3.41% Financial aid increase \$1.4M Surplus or (deficit): \$(4M) to \$(16M) \$360 annual increase residents \$1035 annual increase non-res	Resident undergraduate: 3.99% Non-res undergraduate: 4.00% Financial aid increase \$2.0M Surplus or (deficit): \$(2M) to \$(14M) \$405 annual increase residents \$1215 annual increase non-res
State funding change year over year: -8%	Resident undergraduate: 0.00% Non-res undergraduate: 0.00% Financial aid increase \$0.8M Surplus or (deficit): \$(22M) to \$(34M) \$0 annual increase residents \$0 annual increase non-res	Resident undergraduate: 3.55% Non-res undergraduate: 3.41% Financial aid increase \$1.4M Surplus or (deficit): \$(10M) to \$(21M) \$360 annual increase residents \$1035 annual increase non-res	Resident undergraduate: 3.99% Non-res undergraduate: 4.00% Financial aid increase \$2.0M Surplus or (deficit): \$(8M) to \$(16M) \$405 annual increase residents \$1215 annual increase non-res
	Base resident tuition & fees: 0.61% Average res. tuition & fees: 0.76%	Base resident tuition & fees: 3.57% Average res. tuition & fees: 3.49%	Base resident tuition & fees: 3.94% Average res. tuition & fees: 3.81%

- Graduate tuition 4.5% non-resident, 1.5% resident, professional tuition 3.5%. .Cost estimates include ~2.7% overall inflation this year because of modest increases in benefit costs; costs of growth (about 0.5% for modest growth in Ecampus but declines in Corvallis); and new commitments (this year largely for capital renewal and repair, insurance, debt service, investments in research, student affairs and enrollment management; and the OSU Foundation).

Estimates of expenses for FY22 are complicated by the sharp reduction in spending in the current year (FY21 Quarter 1 Estimate). It is likely that as operations return closer to normal that expense growth will exceed simple inflationary growth (the next to right bar vs. the rightmost bar).



Tuition Structure and Context

In the charge to the Budget Committee this year Provost Feser said that:

“the UBC will consider the tuition pricing policies of the university as a whole, assessing their soundness and alignment across residency categories, programs and modalities of delivery.”

This document provides some context about tuition at OSU and some comparisons to other institutions as background. It is intended as a description of current practice, not necessarily policy or philosophy. A table of the undergraduate tuition and fee rates at some comparator institutions is included in Appendix A if you want to see some of the detail.

How is tuition charged at OSU?

Tuition can be charged in a lot of different ways depending on the program, university, cost, and sometimes legislative direction. At OSU, the principal models for charging tuition include:

- A charge per credit hour. This is used for Ecampus, Corvallis and Cascades undergraduate tuition, and graduate tuition in some professional programs (MBA for example). Undergraduate tuition at Cascades and Corvallis includes a “flat charge” of \$100 per term for residents and \$335 per term for non-residents. The per credit hour charges are added to that “flat” charge.
- A plateaued charge structure. This is used for graduate tuition in many programs, particularly those where the programs include a significant research or scholarship requirement. There is a charge per credit to 9 credit hours, then the cost is fixed to 16 credits, then it increases per additional credit. Plateau models are used at different institutions for undergraduate tuition as well, but the lower and upper limits can vary.
- A flat charge per quarter or year. Some programs have just one tuition charge and require full-time enrollment in the program. These are usually professional programs with very structured curriculum and accreditation requires. The DVM degree at OSU is an example.
- Differential tuition. Some programs that have particularly high costs, high demand, or that provide services unique to a particular major may charge tuition in addition to base tuition. Differential tuition supports programs, services, or experiences available to the majors or minors in the program. There are three ways these charges are currently structured:
 - An additional per credit hour charge. Engineering, for example, has an additional per credit hour charge for majors in engineering disciplines.
 - A charge per quarter. The Honors College charges a flat additional charge per quarter to students admitted to the Honors College.
 - An additional charge per credit by course. This is unusual but is used in some upper division art courses in CLA where there are both majors and minors using the course and services.

Why does tuition vary across programs?

The direct costs for delivering academic programs at different levels (undergraduate vs. graduate) and for different disciplines (engineering vs. philosophy) vary substantially. There are several national studies looking at the cost per credit hour or cost per degree by discipline and level. The state recently updated the weighting it uses for distributing funding based on some of those studies and these tables are based on that weighting scheme.

Relative cost per credit hour (normalized to low-cost lower division)

	Lower-division	Upper-division	Master, Professional	Ph.D.
Average:	1.35	1.95	4.33	5.60
Median:	1.22	1.78	4.08	5.14
Stdev:	0.46	0.59	1.85	2.04

excludes Pharmacy, Law, and Veterinary Medicine

more expensive than the other disciplines. Much of the cost difference here reflects class sizes. Lower-division classes are often larger and graduate classes, particularly Ph.D. classes, can be very small. The smaller the class, the more expensive the delivery (since the principal cost is faculty time).

The difference in cost by level (these are all ratios to lower-cost, lower-division programs like mathematics, which would be 1.0 in this comparison) is shown in the table to the left. Pharmacy, Vet Med, and Law are excluded because they are much

There are also substantial differences at each level across disciplines. I've just shown to the right what the maximum and minimum cost ratios are across the range of disciplines offered by Oregon's public universities.

These differences by disciplines come from a variety of factors---typical class size (studios vs. lectures vs. labs), average course load, salaries for faculty in the discipline, the need for equipment or laboratories, and so on.

Maximum and minimum relative costs across all discipline areas

	Lower-division	Upper-division	Master, Professional	Ph.D.
Minimum cost ratio	0.92	1.29	2.30	3.76
Maximum cost ratio without Pharmacy, Law, Vet Med	1.98	3.28	5.67	9.08

While the costs of delivering programs vary, tuition is not set program by program usually. At the undergraduate level, tuition for most programs is the same, to allow students to move between them without worrying about cost (and to lessen the administrative costs of having hundreds of tuition rates). The exception to this are those programs with costs that have been judged to warrant a differential tuition charge.

Graduate tuition does not always reflect the much higher cost of delivery. In part, this is because graduate students in many programs assist in teaching, research, and public service as

part of their education. Graduate tuition in professional programs (the MBA, DVM, PharmD degrees for example), where there is not an expectation for research or teaching, is often much higher than other graduate programs and more closely reflects the cost of delivery.

Increasingly, demand and competition influence tuition rates. Programs of particularly high-quality (whether real or perceived) may charge more for their degree in a discipline because the demand is much greater than the number of seats available. As online delivery of programs has grown, students have access to many delivery choices for a given course or degree and can easily compare costs nationally for comparable content. Ecampus regularly checks what the national norms are for the courses and degree programs that OSU offers to understand how OSU tuition compares to those other programs.

What is the range of tuition charges across programs and modalities?

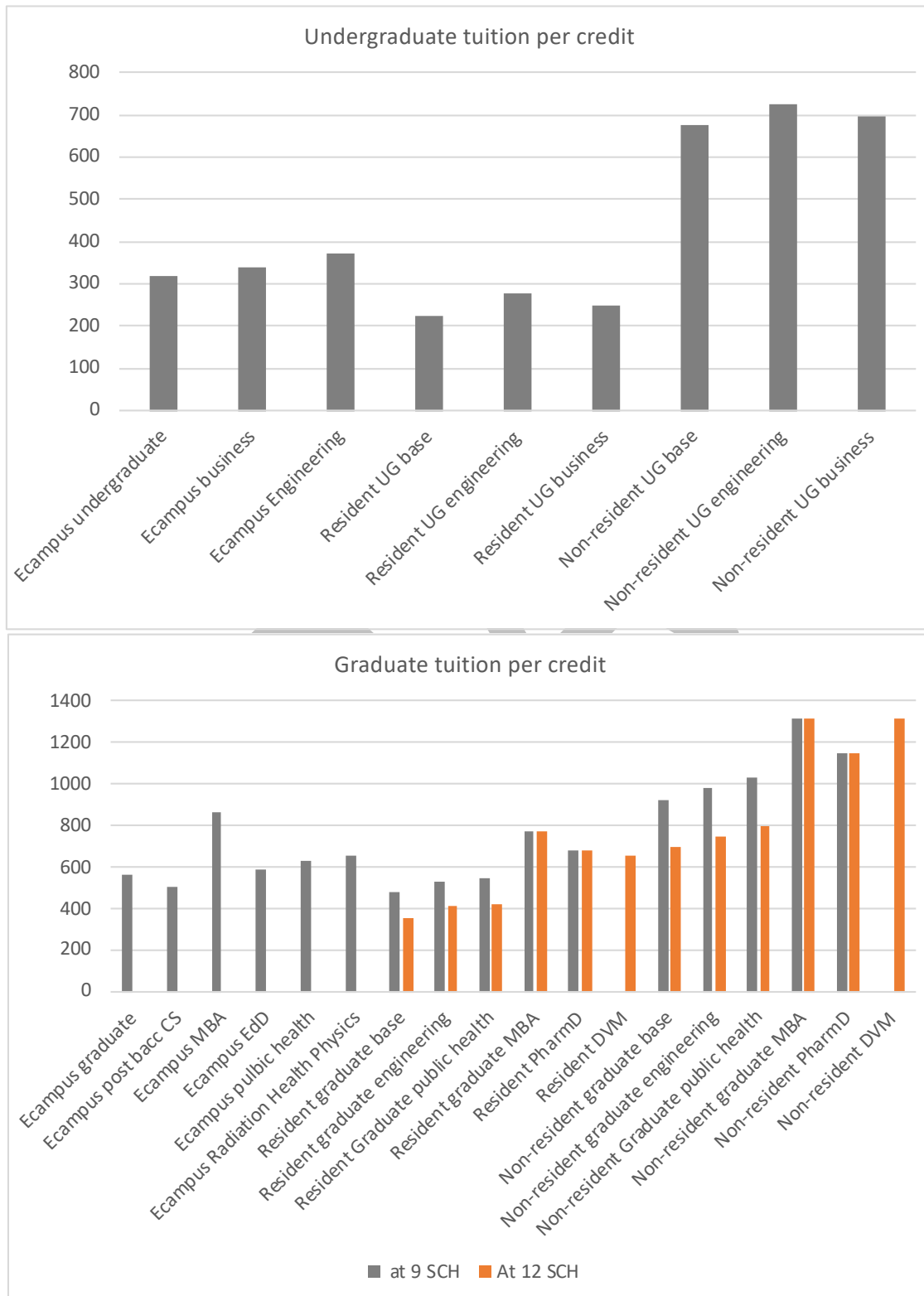
Figure 1 on the next page shows the cost per credit hour for most undergraduate and graduate tuition rates by resident and non-resident charges and by modality (Ecampus vs. campus courses). Cascades undergraduate resident tuition is slightly less than Corvallis tuition, but otherwise rates are the same between the two campuses. The rates are shown for new students entering OSU in fall, 2020.

There are more graduate tuition rates than undergraduate rates because graduate programs are more specialized and focused than most undergraduate degrees. The tuition rates are more differentiated and reflect cost of delivery, demand, and market.

The three most obvious patterns (at least at first glance) are:

- Non-resident tuition is higher than resident tuition
- Graduate tuition tends to be higher than undergraduate tuition in the same discipline or field and same modality
- Ecampus tuition is higher than resident tuition but lower than non-resident tuition in comparable programs

Figure 1: Cost per credit hours for undergraduate (top) and graduate programs (top) for resident and non-resident students. Graduate programs with tuition plateau structures show the cost per credit hour at a 9-credit load (per quarter) and a 12-credit load.



Why is non-resident tuition higher?

At private universities, there is no distinction between resident and non-resident students. There is one set of tuition rates for program and level and tuition is the primary source of revenue for the institution.

For public institutions, state governments provide funding to the university to support (generally) the education of residents of the state as well as other missions that the state considers important (research, public service). The funding that Oregon provides to higher education includes:

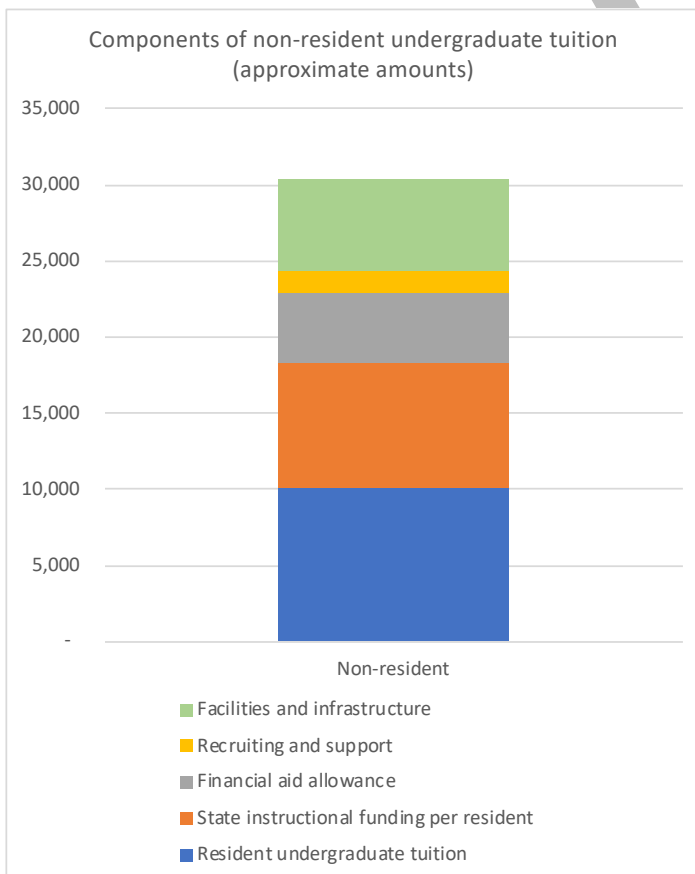
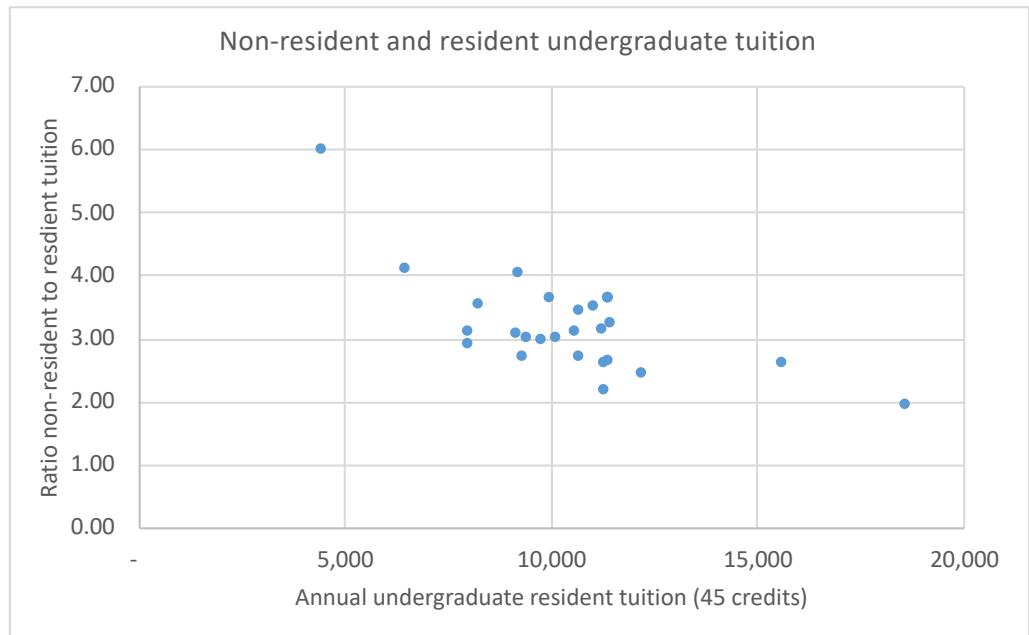
- Annual (though it is appropriated on a biennial basis) operating funding for instruction and other missions.
- Biennial funds for repair of existing buildings and infrastructure. This is a dollar amount and must be spent on facilities.
- Periodic funding for new buildings or major renovation projects. This funding is usually from bond proceeds on which the state pays the principal and interest. These funds have to be used for the specific project or are returned to the state.
- Funding for financial aid, largely through Oregon Opportunity Grants. These are awarded to individual students but contribute to tuition revenues at OSU. These are in addition to other forms of financial aid.

In addition, the state has a legacy investment in the campuses because most of the land, buildings, and infrastructure have been built with state funding over the years.

All of these are paid through state revenues that come principally from individual income taxes, corporate taxes, and lottery earnings. These are largely paid by residents of Oregon and consequently the distribution of state appropriations is in proportion to the number of resident students at each public universities. This means the state does not provide funding for non-resident students. Most states have some kind of similar structure.

	Non-resident to resident undergrad	Grad resident to undergrad resident	Grad non- resident to undergrad non resident	Grad non- resident to grad resident	Most public universities therefore set non-resident tuition higher than resident tuition. For undergraduate tuition that ratio is typically about 3.0, for graduate tuition it is
Average Strategic Peers	3.26	1.21	0.96	2.57	
Average Land Grant peers	3.14	1.15	0.93	2.50	
Average Public Pac-12	3.38	1.16	0.78	2.33	
Median Strategic Peers	3.04	1.09	1.00	2.53	
Median All Land Grant peers	3.01	1.09	0.97	2.49	
Median Public Pac-12	3.50	1.09	0.76	2.32	
OSU	2.99	1.31	0.86	1.97	

usually about 2.5 (see the table to the left). In dollars, for OSU’s land-grant peers, the average undergraduate tuition is about \$10,500 annually and the average non-resident tuition is about \$31,400 (appendix A). The ratio of undergraduate non-resident to resident tuition does vary quite a bit, largely because of a wide variation in resident tuition rates. States with low state funding per student and/or with high tuition-high financial aid models, have much higher resident tuition than the averages.



One way to think about non-resident tuition is that it represents resident tuition plus components that are paid for by the state for resident students, that are unique costs (recruiting and additional financial aid), and that recognize the facilities costs paid for by the state (both currently and in building out the campus). The bar graph shows what that might look like for OSU (the numbers are approximate at this point for illustration).

Appendix A: Annual undergraduate tuition and fee rates at some peer and comparator institutions for OSU. S indicates semester system, Q a quarter system.

Comparison of OSU Undergraduate Tuition and Fees to Strategic Peers and PAC-12							
Rates are reported for 2020-21, some campuses may be subject to change							
All calculated at 15-credit hour load							
	Annual Tuition			Annual Tuition and Fees		Per term fees*	
	Resident	Non-resident		Resident	Non-resident		
Strategic Plan Peers							
	Oregon State	10,155	30,345	Q	12,167	32,357	671
Strategic Plan Peers Tier 1	Ohio State University	10,615	32,599	S	11,518	33,502	451
	Penn State University	18,626	35,862	S	19,686	36,922	530
	Purdue University	9,208	28,010	S	9,992	28,794	392
	UC at Davis	11,442	41,196	Q	14,597	44,351	1,052
	University of Florida	4,477	26,754	S	6,381	28,658	952
	University of Illinois	12,254	29,704	S	15,416	32,866	1,581
	University of Wisconsin	9,273	37,161	S	10,742	38,630	734
Strategic Plan Peers, Tier 2	Colorado State University	9,426	28,147	S	11,939	30,659	1,256
	Iowa State University	8,042	23,230	S	9,316	24,504	637
	NC State University	6,535	26,654	S	9,101	29,220	1,283
	UC at Riverside	11,442	41,196	Q	13,742	43,496	767
	University of Tennessee	11,332	29,348	S	13,264	31,280	966
	Washington State University	11,332	24,292	S	12,742	25,702	705
Other Comparator Institutions							
Other Major Land Grant Universities	Michigan State University	15,660	40,384	S	15,727	40,451	34
	Texas A&M University	11,053	38,394	S	11,053	38,394	-
	Virginia Tech University	11,420	29,960	S	13,749	32,289	1,165
	Louisiana State University	8,047	24,731	S	11,964	28,648	1,959
	Kansas State University	9,375	25,251	S	10,440	26,316	533
	University of Arizona	11,299	35,326	S	12,696	36,723	698
	University Of Georgia	9,790	28,830	S	12,080	31,120	1,145
Other Public Pac-12 Universities	Arizona St. University	10,710	28,800	S	11,986	30,076	638
	University of Utah	8,301	29,065	S	9,549	30,313	624
	University of Colorado	10,728	36,546	S	12,466	38,284	869
	UCLA	11,442	41,196	Q	13,576	43,330	711
	UC Berkeley	11,442	41,196	S	14,312	44,066	1,435
	University of Oregon	11,458	36,910	Q	13,856	39,308	799
	University of Washington	10,008	36,288	Q	11,487	37,767	493
*less mandatory health insurance							
	Average Strategic Peers	10,308	31,089		12,187	32,968	870
	Average All Land Grants here	10,532	31,351		12,307	33,126	842
	Average Public Pac-12	10,584	35,715		12,462	37,592	796
	Median Strategic Peers	10,615	29,348		11,939	31,280	767
	Median All Land Grants here	10,834	29,526		12,022	31,785	750
	Median Public Pac-12	10,728	36,546		12,466	38,284	711