

Understanding Subsidy

Budget Planning Council

11-17-22

This presentation is an introduction to how state subsidy revenues are attributed to the 13 public universities in Ohio

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STATE SHARE OF INSTRUCTION (SSI)

FY 2022 - FY 2023 Operating Budget Details

FY2023

FY2023 State Share of Instruction (SSI) Handbooks

- University (PDF)
- College (PDF)

FY2023 Final SSI Distributions

- Universities (XLSX)
- Community Colleges (XLSX)
- Allocations by Institution including capital component adjustment (XLSX)

FY2023 First Half Projected SSI Distributions

- Universities (XLSX)
- Community Colleges (XLSX)
- Allocations by Institution including capital component adjustment (XLSX)

<https://highered.ohio.gov/educators/budget-financial/operating-budget-details>

Detailed information is available on the Ohio Department of Education web site – there is a Handbook which describes their allocation process and its major steps and a spreadsheet with all of the detailed calculations

Subsidy Components

FY222 State Appropriation - Universities		
Completions	480,006,769	30%
Degrees	791,306,906	50%
Doctoral	186,431,907	12%
Medical	124,868,230	8%
	1,582,613,811	

- 2010-11 – shifted from enrollment based (butts-in-seats) to Performance Based Funding (course and degree completions)
- Includes Main and Regional Campuses – they were separate until 2016.
- Separate appropriation for Community Colleges

Appropriations are fixed amounts – additional subsidy for growth is relative to what all institutions are experiencing – changing the size of slices of a fixed pie

- Completions = Formula Subsidy
 - Reimbursement for course completions
 - Based on the number of FTE students (30 semester hours) that complete the course (I's, F's, and withdraws don't count)
 - Allocation for at risk (financial and/or academic) completions (\$15.9M of the \$480M – 3%)
- Degrees = reimbursement for the share of credits when degrees is ultimately granted
 - Reimbursement for resident and non-resident (50% of those staying in state)
 - Allocation for risk by five categories (age, financial, academic, race, 1st Gen)
- Doctoral = a fixed pool statewide
 - Allocations for FTE production (25%), degrees granted (50%) and NSF/NIH grant funding (25%)
- Medical = direct allocation to medical schools based on headcount enrollment

Summary Tab

The State Legislature previously appropriated revenue to fund activity in three sectors – Community Colleges, Regional Campuses and Main Campuses. In FY16 the allocations for Regional and Main campuses has become merged so there are now two sectors.

The State moved from an allocation based purely on enrollment (butts in seats) to a Performance Based Funding model where outcomes (course completions and degree completions) are emphasized

For FY33, the Main Campus appropriation is \$1.46B. Within that appropriation, there are four separate pools associated with different areas. These create fixed pools that limit distribution of revenue such that growth in an area by one institution can affect its “slice of that pie” but if all institutions grow, no additional revenue will be allocated so each pie cannot grow in total size.

The four pools are detailed below:

Completions – this is subsidy that is earned when students successfully complete a course. Students withdrawing, failing or getting an incomplete do not generate funding. There is an additional allocation for students with financial or academic risk completing a course to recognize the additional support (and costs) universities must provide to help at-risk students succeed.

Degrees – this is subsidy awarded at the time a student successfully completes a degree.

There is some subsidy for out-of-state students that remain in the state to work after graduation, but this subsidy is a fraction of that for Ohio residents. There is also an added at-risk subsidy for students with five risk factors – age, financial, academic, race or first generation. This is to recognize the extra support (and cost) needed to help these students successfully complete a degree. 50% of the funding goes to degrees so the incentive for universities is to move students to successful degree completion.

Doctoral – this a separate pool for doctoral programs that includes allocations for course completions, degree completions and research funding.

Medical – a separate allocation for the medical school

Note that throughout this presentation the note in the bottom left corner is a reference to a tab in the ODHE subsidy spreadsheet where you can find the information on this slide.

OU FY22 Subsidy Projection

		Share
FTE Completions	53,039,670	11.2%
At-Risk Completions	933,251	11.7%
Resident Degree Credits	71,085,351	11.7%
Non-Resident Degree Credits	9,437,550	11.2%
Resident Degree Credits At-Risk	11,428,643	11.5%
Non-Resident Degree Credits At-Risk	132,128	8.9%
Doctoral Set Aside	11,020,966	5.9%
Medical	22,620,213	18.1%
	179,697,771	11.4%

**Athens and Regional Campuses*

- Degrees
 - Non-Residents weighted 50% and then weighted for the university's percent of Non-Resident students that are still in the state one year after graduation – we are at 11.4% while the state average is 22.8% - $50\% * 11.4\% = 5.7\%$
 - At Risk degrees have five factors with all possible combinations - 31
 - Age > 22 when starting college
 - Financial - EFC < \$2,190
 - Academic - ACT < 17 or Developmental Courses
 - Minority Race
 - First Generation

- Completions – based on three-year average of FTE credit hour production
- At Risk Completions are students completing that fit into two categories of risk
 - financial need
 - Expected Family Contribution < \$2190 based on FAFSA)
 - academic risk
 - ACT English or Math <17
 - In developmental courses if no ACT

Summary Tab

In terms of the subsidy earned by OU, here are all the sources of subsidy and the amounts that we receive.

There are two amounts for course completions – the general subsidy for overall completions (53M) and the additional subsidy for at risk students completing courses (933K). Note that the At-Risk concept only applies to undergraduate students. Overall completions are for undergraduate and masters students. Doctoral is separate. All these numbers include regional campus activity as well.

There are four allocations for degrees when you combine resident and non-resident with At-Risk. We receive 71M for Resident degree completions and 9.4M for Non-resident degrees. In addition, there is an allocation for both of these groups for At-Risk students with five types of risk: age, financial, academic, race and first generation. The additional subsidy we get for students with any combination of these risk factors is 11.4M for resident students and 123K for non-resident students. As with completions, risk does not apply for masters degrees. Doctoral degrees are in a separate doctoral allocation.

Formula Subsidy Taxonomy

Model	FY 2022 Model Costs	Level	Grad Weight	STEM Target % from FY 2007 Model run	Reimbursement % of Cost	Reimbursement Cost FY 2022
AH 1	\$9,482	UG	0	0	1.00	\$9,482
AH 2	\$13,675	UG	0	0	1.00	\$13,675
AH 3	\$16,402	UG	0	0	1.00	\$16,402
AH 4	\$24,051	UG	0	0	1.00	\$24,051
AH 5	\$42,322	Grad	0.0425	0	1.04	\$44,121
AH 6	\$40,174	Grad	0.0425	0	1.04	\$41,881
BES 1	\$9,167	UG	0	0	1.00	\$9,167
BES 2	\$9,756	UG	0	0	1.00	\$9,756
BES 3	\$12,701	UG	0	0	1.00	\$12,701
BES 4	\$14,599	UG	0	0	1.00	\$14,599
BES 5	\$23,626	Grad	0.0425	0	1.04	\$24,630
BES 6	\$26,009	Grad	0.0425	0	1.04	\$27,115
BES 7	\$36,053	Grad	0.0425	0	1.04	\$37,586
STEM 1	\$9,077	UG	0	0.00%	1.00	\$9,077
STEM 2	\$11,912	UG	0	0.17%	1.00	\$11,932
STEM 3	\$13,624	UG	0	61.50%	1.62	\$22,003
STEM 4	\$15,737	UG	0	69.20%	1.69	\$26,627
STEM 5	\$19,380	UG	0	42.22%	1.42	\$27,561
STEM 6	\$21,044	Grad	0.0425	83.73%	1.8798	\$39,560
STEM 7	\$25,629	Grad	0.0425	39.55%	1.4380	\$36,856
STEM 8	\$40,444	Grad	0.0425	52.50%	1.5675	\$63,398
STEM 9	\$54,427	Grad	0.0425	9.36%	1.1361	\$61,832
Statewide Costs						\$3,940,637,310
Appropriation						\$472,057,896
Effective Reimbursement Rate						11.98%

Model Cost Tab

- Subsidy is earned though students completing courses
- 22 cost models
 - 13 Undergraduate
 - 9 Masters
- Model Cost represents statewide three-year average cost of producing an FTE (30 semester hours) in different discipline groups)
 - AH = Arts & Humanities
 - BES = Business, Education & Social Science
 - STEM = Science, Technology, Engineering & Math
- Currently based on FY18, FY19 and FY20 – three year average lagged one year.
- Levels 1 & 2 = introductory / general education
- Level – UG=Undergraduate, Grad = Graduate
- Doctoral has separate pool and associated calculation
- Extra weighting for Graduate and STEM to get Reimbursement Cost
- Overall reimbursement is 11.98% of the cost

Now we will look at the details of how our course completion subsidy it earned.

The first concept that is incorporated is the idea that the cost to produce credit hours is different for the level of the course (introductory, upper level major courses, masters courses) and the discipline. So the state gathers cost data from all 13 universities to determine the cost of producing a Full-Time Equivalent (FTE) which is 30 semester hours – basically the credit a full-time student takes in a year.

The amount of subsidy provided for course completions is weighted by the cost of producing an FTE (30 SCH) across the state. To simplify the calculation while still reflecting the fact that courses in different disciplines and at different levels (intro, major and masters) have different costs, courses are lumped into one of 22 models containing courses with similar cost structures. There are three discipline groups – arts & humanities (AH), business, education and social science (BES) and science, technology, engineering and math (STEM) and the levels are represented by the various numbers. Models for graduate level courses indicated in the Level column.

Each model has a reimbursement cost which is a six-year statewide average across all 13 universities. Additional weighting is given to Graduate and STEM models to get the reimbursement cost for each model.

The sum of the costs for all the FTE produced across all 13 universities is 3.9B. Since the appropriation for completions is 472M that means that the amount of Subsidy earned for

credit hour production is a fixed percentage (12%) of the reimbursement cost for each model.

Subsidy Models

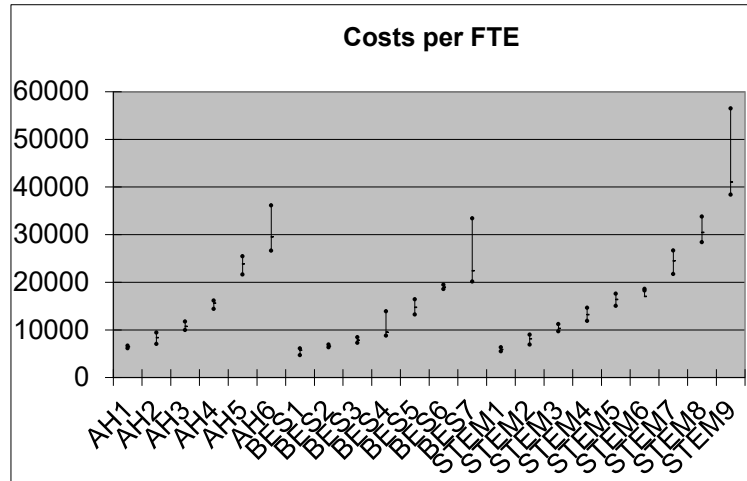
Course	Model	Statewide Cost
CLWR1810	AH1	6122
CLWR2220		
COMS1010	AH1	6410
COMS1030		
ENG 1510	AH1	6543
ENG 1610		
ENG 2800	AH1	6675
ENG 3850		
JOUR1050	AH2	9115
MDIA1091		
PHIL1010	AH2	9437
PHIL1200		
PHIL1300	AH2	9361
	AH2	7040
	AH2	7194
	AH2	7420
	AH2	8934
	AH2	8063
	AH2	7465
	AH3	11162
	AH3	9968
	AH3	10209
	AH3	11737
	AH4	14381
	AH4	16128
	AH4	15615
	AH5	25114
	AH5	25206
	AH5	21614
	AH5	24307
	AH5	25451
	AH6	30248
	AH6	36128
	AH6	29747
	AH6	28627
	AH6	28819

- Allocation is based on discipline – CIP code
- Courses are grouped together by discipline
- Course-Discipline combinations are grouped together under a model
- Note that a discipline can show up in multiple models – within each model you would find different courses within that discipline (e.g. Communication)
- The average cost across the model is the amount used to determine the reimbursement rate for all the courses in that model
- The most accurate reimbursement approach would be to tie the rate to every course individually but that is not practical, so this approach is a middle ground where the cost differences across disciplines and courses is recognized using a rough approximation

The groupings of courses into taxonomy model is actually done on the basis of subject field (equivalent to CIP code). Subjects cut across our internal “disciplines” as illustrated here – the courses in the communication subject for the AH1 taxonomy include two courses from classics & world religions and two from communication. In addition, note that a particular subject can appear in different taxonomy models indicating that courses have different cost levels – for example all the other undergraduate COMS courses fall into the communication subject under the AH2 model.

Note how the model groups together subject courses that have a similar statewide cost. The reimbursement cost for the overall model is the average of those subjects in that model so some disciplines will be reimbursed slightly above their average and some slightly below.

Model Cost Distributions



- Costs of introductory course are similar
- Ranges are tighter for undergraduate compared to master's level

This graph shows the dispersion of the various costs for the subjects grouped into a model when this new taxonomy was first created. The little tick mark in the middle is the average which becomes the actual reimbursement cost for the group. Note how the lower level models have fairly tight distributions but as some of the upper levels the distributions expand and there is sometimes an overlap in costs – see for example BES 4 and 5 and STEM 5 and 6

OU Completion Earnings

Model	Reimbursement Cost	Completed FTE	At-Risk FTE	Competition SSI	At-Risk SSI	Total SSI	SSI per Completed FTE
AH 1	9,482	878	341	997,058	41,323	1,038,381	852
AH 2	13,675	1,788	708	2,928,309	78,356	3,006,664	1,205
AH 3	16,402	1,307	416	2,567,537	39,383	2,606,920	1,513
AH 4	24,051	412	114	1,187,518	13,745	1,201,263	2,281
AH 5	44,121	172	-	908,144	-	908,144	5,285
AH 6	41,881	231	-	1,158,744	-	1,158,744	5,017
BES 1	9,167	411	171	451,450	16,992	468,442	805
BES 2	9,756	1,126	392	1,316,483	41,788	1,358,270	895
BES 3	12,701	1,236	548	1,880,588	46,895	1,927,483	1,081
BES 4	14,599	4,548	1,537	7,953,298	115,360	8,068,659	1,326
BES 5	24,630	888	-	2,618,820	-	2,618,820	2,950
BES 6	27,115	320	-	1,039,482	-	1,039,482	3,248
BES 7	37,586	304	-	1,368,596	-	1,368,596	4,502
STEM 1	9,077	1,142	522	1,242,251	88,228	1,330,479	799
STEM 2	11,932	1,888	714	2,698,654	75,787	2,774,441	1,066
STEM 3	22,003	994	344	2,619,463	77,349	2,696,813	2,015
STEM 4	26,627	3,985	1,783	12,709,889	278,315	1,330,479	799
STEM 5	27,561	667	165	2,202,082	19,731	2,774,441	1,066
STEM 6	39,560	106	-	500,378	-	2,696,813	2,015
STEM 7	36,856	699	-	3,086,189	-	12,988,204	2,252
STEM 8	63,398	171	-	1,298,418	-	2,221,813	2,671
STEM 9	61,832	41	-	306,320	-	500,378	4,739
		23,313	7,755	53,039,670	933,251	56,083,727	
Undergraduate		20,381		40,754,580	933,251	30,582,734	
Graduate		2,627		10,916,494	-	24,132,397	

Pivoted data from Subj Level Tab

- Average of 3-years of data 2017-18, 2018-19 and a projection of 2019-20
- Completions = Ohio Residents completing courses
- At Risk are completions by Ohio Residents that have one of the two or both (financial and academic) risk factors when they started college – undergraduate only
- Reimbursement Cost is the statewide cost to produce those FTE#
- At risk is a very small fraction of total funding <1.7%
- Graduate FTE is 11% of the total while the subsidy for graduate completions is 43% of the total revenue since it costs more to produce graduate FTE

This is the projection for the subsidy earnings for our course completions. Completion is based on the average of three years of data that is lagged one year – so for FY22 that would be FY18, FY19 and FY20. So when a program starts and begins offering credits there is a lag of four year to the point where that level of credit-hour production actually is fully realized in the flow of subsidy.

The SSI for each model is simply the FTEs we produce in a model times the reimbursement cost for that model times the subsidy rate of 12%. This produces the revenue we get for completions and at risk completions.

The earnings per FTE shows the implied amount we get per FTE from the combination of revenues from completions and At Risk completions.

At Risk Formula Earnings

- At Risk FTEs are weighted by the extent to which completions occur in each subsidy model across the state. This calculation creates a ratio between the completion rate for non-risk to that of at-risk students in each model to come up with a weighting factor that will be used to differentially inflate a university's FTE for each model
- For example, AH1 completion rates for Non-risk students is 93.5% statewide while for At-Risk it is 88%. So, $93.5\%/88\% = 106.2\%$ so AH1 completions will get an 6.02% extra weight.
- For AH2 the weight is 6.3% and so on.
- These weights will be used to calculate the additional subsidy provided for At Risk completions

$$\frac{\text{Non Risk \% Completion}}{\text{At Risk \% Completion}} - 1$$

Model	No Risk FTE	No Risk Completed FTE	No - Risk Completion Rate	At Risk FTE	At Risk Completed FTE	At Risk Completion Rate	Weight
AH 1	18,902	17,016	93.5%	15,694	13,818	88.0%	6.2%
AH 2	28,315	26,306	92.3%	15,731	13,651	86.8%	6.3%
AH 3	18,731	17,733	92.5%	25,618	22,077	86.2%	7.3%
AH 4	7,100	6,654	92.2%	15,258	13,390	87.8%	5.1%
BES 1	6,171	5,723	83.3%	2,159	1,717	79.5%	4.8%
BES 2	18,400	16,789	92.7%	36,864	31,937	86.6%	7.0%
BES 3	15,368	14,446	93.8%	9,793	8,551	87.3%	7.5%
BES 4	74,707	70,873	100.0%	15	15	95.4%	4.8%
STEM 1	15,941	13,804	94.0%	41,879	37,022	88.4%	6.4%
STEM 2	39,762	35,661	92.5%	26,707	23,442	87.8%	5.4%
STEM 3	20,283	18,402	92.3%	4,610	3,943	85.5%	7.9%
STEM 4	55,116	52,138	92.5%	11,203	9,684	86.4%	7.0%
STEM 5	28,068	26,771	91.1%	13,906	11,883	85.5%	6.7%

Enroll at Risk Tab

To calculate the additional subsidy for at-risk students, a weight is used for each subsidy model to capture the concept that an at-risk student might have more difficulty completing course at different levels and in different disciplines.

To come up with a weight for each model, they get a completion rate for non-risk students for each model. So for AH1, 93.5% of non-risk students complete those courses. This is compared to the completion rate for students with risk factors of financial, academic or both. For AH1 courses that rate is 88%.

They then divide the rate for non-risk students by the rate for at-risk students to get 106.2%. Subtracting 1 from this gives a differential of 6.2% so at-risk students are 6.2% less likely than non-risk students to complete AH1 courses. So when an at-risk student completes an AH1 course there will be an additional 6.2% subsidy added.

The same calculation is done for all models to get a weight for each model – again this only applies to the undergraduate models.

Campus Risk Index

	Total FTE	Completed FTE	Completion Rate	Weight Relative to No Risk	OHIO FTE	Weighted	Total
No Risk	346,864	322,315	92.9%		39,717		
Financial Risk	104,563	91,171	87.2%	6.57%	11,757	773	
Academic Risk	68,815	61,191	88.9%	4.50%	8,429	379	
Both Risks	59,721	50,466	84.5%	9.96%	6,521	650	
					66,425	1,802	68,226
						Index ==>	1.03

- An additional weighting is given to universities that attract more At-Risk students compared to others.
- In this calculation a statewide weight is determined for each of the three risk combinations (Financial, Academic and Both) and each universities activity is weighted
- Then a ratio of weighted to un-weighted activity is computed to create a campus index

Universities with small amounts of at-risk completions et a smaller index than universities with more activity. We are basically at the average

FY18 - 20	Inst	No Risk	Financial Only	Academic, Only	Both	Total	Weighted Financial	Weighted Academic	Weighted Both	Weighted Count for Index	Institution Completion Index
Inst	AKRN	22,895	7,453	3,891	4,350	38,589	490	175	433	39,688	1.03
Inst	BGSU	24,674	7,170	5,400	3,162	40,405	471	243	315	41,434	1.03
Inst	CINC	52,232	13,271	6,814	5,533	77,850	872	307	551	79,580	1.02
Inst	CLEV	12,710	6,901	3,521	4,835	27,967	454	158	482	29,061	1.04
Inst	CNTL	588	1,803	56	300	2,747	118	3	30	2,898	1.05
Inst	KENT	34,332	11,853	13,594	11,417	71,196	779	612	1,138	73,724	1.04
Inst	MIAM	29,852	6,141	1,986	1,666	39,645	404	89	166	40,304	1.02
Inst	OHSU	76,896	18,385	13,253	10,241	118,774	1,208	596	1,020	121,599	1.02
Inst	OHUN	39,717	11,757	8,429	6,521	66,425	773	379	650	68,226	1.03
Inst	SHAW	4,015	1,872	1,270	1,468	8,624	123	57	146	8,951	1.04
Inst	TLDO	24,292	8,661	1,109	1,433	35,494	569	50	143	36,256	1.02
Inst	WSUN	14,679	5,052	4,790	4,065	28,585	332	216	405	29,538	1.03
Inst	WNGS	9,983	4,234	4,702	4,728	23,646	278	212	471	24,605	1.04
										Average	1.03

Enroll at Risk Tab

In addition, to recognize that at-risk students are not equally concentrated across all 13 institutions, an additional campus index is created. Universities with more at-risk students will get an additional weighting to recognize that universities with larger numbers will have greater costs for supporting at-risk students. To determine the campus index, the overall statewide completion rate for students with no risk compared to those with financial, academic or both risks are compared to get the weights in the middle column. So, students with financial risk get a 6.57% weight and so on.

These weights are then applied to our FTE in the three risk combinates to get the additional weighted at-risk FTE. So from out total 66,425 completions, we have an additional 1,802 from the at-risk weights to make the total 68,226. This inflated total is 103% of our actual 66,425 FTE so our campus index is 1.03. The index for each university is shown. The average is 1.03 so we are basically in the middle with the range from 1.02 to 1.05.

OU Completion Earnings

This is the OBR calculation of our Completion subsidy

Three years of FTE Completions Three years of At Risk Completions

subject_field	model	FTE Completed FY2018	FTE Completed FY2019	FTE Completed FY2020	At Risk Completed FTE FY2018	At Risk Completed FTE FY2019	At Risk Completed FTE FY2020	3 year average completed FTE	3 year average At Risk FTE	At Risk Weight	At Risk Index	At Risk Add on FTE	Reimbursement Cost Completed FTE	Reimbursement Cost At Risk FTE	SSI for Completed FTE	SSI for At Risk FTE	Grad or UG
Accounting	BES 4	265.0	254.7	220.6	66.4	54.7	47.1	246.8	56.1	0.04	1.03	2.4	\$3,603,142	\$35,111	\$431,638.57	\$4,206.00	UG
Accounting	BES 6	8.7	13.9	26.1	0.0	0.0	0.0	16.2	0.0	0.00	0.00	0.0	\$439,864	\$0	\$52,692.29	\$0.00	UG
Accounting	BES 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.09	1.03	0.0	\$0	\$0	\$0.00	\$0.00	UG
Agriculture	STEM 4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.05	1.03	0.0	\$888	\$43	\$106.32	\$5.20	UG
Allied Health	STEM 4	631.4	639.0	640.2	241.6	235.8	239.1	633.5	235.9	0.05	1.03	12.3	\$16,868,285	\$326,934	\$2,020,600.23	\$39,166.56	UG
Allied Health	Doc 2	11.2	14.1	18.6	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	\$0	\$0	\$0.00	\$0.00	UG
Allied Health	STEM 2	210.7	210.9	180.4	83.4	84.2	74.9	200.7	80.8	0.07	1.03	6.0	\$2,394,288	\$71,625	\$286,817.19	\$8,580.08	UG
Allied Health	STEM 7	250.5	251.9	258.6	0.0	0.0	0.0	233.7	0.0	0.00	0.00	0.0	\$9,349,578	\$0	\$1,120,007.18	\$0.00	UG
Anthropology	BES 4	64.7	75.0	56.6	21.0	24.8	17.6	65.4	21.1	0.04	1.03	0.9	\$955,452	\$13,237	\$114,455.80	\$1,859.69	UG
Anthropology	BES 1	128.7	82.0	79.4	39.2	24.0	20.8	96.7	28.0	0.09	1.03	2.5	\$886,413	\$23,211	\$106,185.38	\$2,780.52	UG
Anthropology	BES 7	3.1	6.8	6.4	0.0	0.0	0.0	5.5	0.0	0.00	0.00	0.0	\$205,050	\$0	\$24,563.38	\$0.00	UG
Architecture	STEM 4	37.0	48.0	50.5	12.7	18.2	17.7	45.2	16.2	0.05	1.03	0.8	\$1,200,628	\$21,084	\$144,066.69	\$2,529.76	UG
Architecture	STEM 7	0.3	0.5	0.7	0.0	0.0	0.0	0.5	0.0	0.00	0.00	0.0	\$18,428	\$0	\$2,207.54	\$0.00	UG
Art	AH 3	225.6	226.5	216.7	79.5	76.2	79.5	222.9	78.4	0.05	1.03	3.8	\$3,656,293	\$61,874	\$437,995.66	\$7,423.96	UG
Art	Doc 2	8.4	8.3	10.7	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	\$0	\$0	\$0.00	\$0.00	UG
Art	AH 2	161.0	144.0	129.0	55.2	47.9	38.4	143.3	47.2	0.07	1.03	3.2	\$1,959,919	\$43,515	\$234,783.09	\$5,217.31	UG
Art	AH 5	35.6	34.3	38.3	0.0	0.0	0.0	36.1	0.0	0.00	0.00	0.0	\$1,591,791	\$0	\$190,684.31	\$0.00	UG
Biology	STEM 4	532.6	510.1	508.4	135.0	127.8	145.3	517.0	136.0	0.05	1.03	6.7	\$13,766,871	\$177,305	\$1,649,164.77	\$21,239.94	UG
Biology	Doc 2	71.7	63.7	60.6	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	\$0	\$0	\$0.00	\$0.00	UG
Biology	STEM 2	403.9	409.3	395.6	120.5	120.8	100.8	389.9	114.0	0.07	1.03	8.5	\$4,652,422	\$101,012	\$557,324.54	\$12,105.29	UG
Biology	STEM 8	46.5	40.0	43.1	0.0	0.0	0.0	43.2	0.0	0.00	0.00	0.0	\$2,736,673	\$0	\$327,832.22	\$0.00	UG
Business Informa	BES 4	220.6	231.4	213.3	48.9	50.6	50.6	221.8	50.0	0.04	1.03	2.1	\$3,237,507	\$31,346	\$387,828.33	\$3,754.97	UG

Statewide weight for at risk for each model →
 Athens Campus Index →
 At risk FTE times the two weights produces additional FTE that get added to the main at-risk FTE number when computing reimbursement →
 Total cost of FTE produced using statewide costs →
 Risk components are zero for graduate models since risk applies only to undergraduate activity
 Doctoral FTE are shown (Doc 1 & Doc 2 models) but no SSI is calculated since there is a separate Doctoral calculation

Subsidy we will receive

Subj Level Tab

So putting everything together for completions here is how our subsidy is calculated.

First, this is listed by subject field. Subject fields are similar to majors but not exactly. Some subjects like Accounting map 1:1 to a major. While others like Allied Health will include multiple majors. Using Accounting as an example, you can see three entries for different models – BES 4 for the upper level major courses, BES 2 for the introductory courses and BES 6 for masters.

For each subject-model combination there are three completion FTE years listed – FY18, FY19 and FY20 are used for this FY22 calculation. Then the same thing for At-Risk completions. Each of those three-year groups is then averaged.

Then the weights for the subsidy model and the campus index for the university are listed.

Two reimbursement costs are then calculated

- one that takes the three-year average completions times the reimbursement cost for that model to get the total reimbursement cost for completed FTEs
- one that takes the three-year average at-risk completions times the weight for that model times the campus index for the institution times the reimbursement costs for that model to get the reimbursement cost for completed At-Risk FTE

These two reimbursement costs are then multiplied by 11.9% to get the SSI for completions and at-risk completions – this is the subsidy we receive for completions.

Other things to note

– you can see on the second line, which are masters courses, that there are zeros for the at-risk components.

- you will also see the second Allied Health entry is in the Doc 2 model. This shows the FTE data for that model but all the subsidy calculations are zero since doctoral courses are part of the separate doctoral subsidy calculation.

Degree Costs

As with the cost of producing credit hours, OBR collects data on the cost to produce degrees - Associate (Level 3), Bachelors (5) , Masters(7), and Doctoral across the system.

The SCH going into degrees is a three-year average – FY18, FY19 and FY20

Degree Level	Subject/Discipline Level	degrees	Avg SCH	average cost
3	Agriculture Technologies	810	93.4	\$ 56,035
3	Business Technologies	8119	102.6	\$ 36,075
3	Engineering Technologies	5675	105.4	\$ 55,076
3	Health Technologies	15375	118.7	\$ 63,434
3	Liberal Arts	26050	103.8	\$ 42,713
3	Natural Science Technologies	3788	104.2	\$ 43,808
3	Other	5035	97.9	\$ 40,587
3	Public Service Technologies	2511	96.7	\$ 33,530
5	Accounting	3445	146.9	\$ 63,003
5	Agriculture	1104	148.4	\$ 94,111
5	Allied Health	5644	152.0	\$ 87,395
5	Anthropology	413	151.2	\$ 68,204
5	Architecture	903	144.2	\$ 94,014
5	Art	1106	152.3	\$ 69,837
5	Biology	6033	147.9	\$ 87,888
5	Business Information and Data Processing Ser	623	145.9	\$ 65,377
5	Chemistry	782	150.9	\$ 91,488
5	Civil Engineering	1115	154.1	\$ 103,858

Degree Cost Tab

Next, moving on to Degree subsidy there is a similar approach

As with courses, the state gathers data on the costs of producing degrees across the 13 universities by subject field. Subject field is similar to major but does not match exactly since some subjects include multiple majors.

This table lists the number of degrees awarded across all the state institutions and the average credits that go into that degree as well as the average cost to produce that degree. As with credit hours only part of the total cost of a degree will be funded by subsidy.

The Degree Level in this list starts with associate (3), then bachelor's (5), Master (7) and several doctoral levels

At Risk Degree Weights

Case	Students	Graduates	State grad rate	Weight This goes in the degrees tab row 3, for both resident and non-resident
case 00	109,088	79,986	73%	
case 01	29,407	19,718	67%	9.4%
case 02	3,820	2,017	53%	38.9%
case 03	13,367	7,034	53%	39.3%
case 04	7,791	3,856	49%	48.1%
case 05	20,279	12,185	60%	22.0%
case 06	2,402	1,190	50%	48.0%
case 07	8,820	4,377	50%	47.8%
case 08	6,321	2,828	45%	63.9%
case 09	23,302	12,768	55%	33.8%
case 10	876	479	55%	34.1%
case 11	563	183	33%	125.6%
case 12	2,121	883	42%	76.1%
case 13	1,383	492	36%	106.1%
case 14	4,483	2,274	51%	44.5%
case 15	1,252	548	44%	67.5%
case 16	1,041	598	57%	27.6%
case 17	1,722	535	31%	136.0%
case 18	3,066	1,259	41%	78.6%
case 19	123	42	34%	114.7%
case 20	734	392	53%	37.3%
case 21	444	173	39%	88.2%
case 22	338	89	26%	178.5%
case 23	6,171	2,289	37%	97.7%
case 24	2,144	698	33%	125.2%
case 25	10,869	4,694	43%	69.8%
case 26	476	185	39%	88.7%
case 27	2,910	817	28%	161.2%
case 28	2,198	572	26%	181.8%
case 29	1,499	749	50%	46.7%
case 30	109	50	46%	59.8%
case 31	681	252	37%	98.1%
Total	269,800	164,212	61%	20.5%

Degree Index Tab

- From the five risk factors used for degrees (age, financial, academic, race and 1st Gen), there are 31 combinations with a student having zero, one, two, three, four or all five of the factors – Case 00 through 31
- OBR collects data from all universities for the number of at risk student that enroll vs those that complete the degree for each Case
- The No-risk (Case 00) rate is divided by the rate for the case (minus 1) to get a weight (green) for each case that will be used to weight at risk degrees to provide additional subsidy for producing them
- For example, if a university has 100 FTE in case 02, an additional 38.9 FTE are added to get 138.9 FTE worth of SSI.

Case 00: No Risk Factors	Case 08: Financial & Race
Case 01: Financial, only	Case 09: Financial & First Generati
Case 02: Academic, only	Case 10: Academic & Age
Case 03: Age, only	Case 11: Academic & Race
Case 04: Race, only	Case 12: Academic & First Generat
Case 05: First Generation, only	Case 13: Age & Race
Case 06: Financial & Academic	Case 14: Age & First Generation
Case 07: Financial & Age	Case 15: Race & First Generation

etc...

Just like with completions, there are risk factors for students completing degrees. For this there are five risk factors: financial and academic like with course completions with additions of age (>22 when enrolling), race and first generation. So, with 5 factors and combinations of two, three, four or all five, there are 31 possible combinations. Part of the case list is shown at the bottom right.

For each risk case they compute a completion rate using the number of students in that case that graduate with a degree divided by the total number of students in that case. This percentage is divided into the base graduation rate for students without risk (73%) (then minus 1) to get a weight for a student in any one of the 31 cases.

OU At-Risk Degrees

	OHIO	OHIO	OHIO		
	Total FTE	Graduated	Grad Rate	State Rate	Added FTE
case 00	12571	9234	73.5%	73.3%	
case 01	3708	2423	65.3%	67.1%	347
case 02	466	286	61.4%	52.8%	181
case 03	4176	2591	62.0%	52.6%	1,643
case 04	535	335	62.6%	49.5%	258
case 05	2394	1457	60.9%	60.1%	527
case 06	245	127	51.8%	49.5%	118
case 07	1183	595	50.3%	49.6%	565
case 08	311	184	59.2%	44.7%	199
case 09	2803	1505	53.7%	54.8%	948
case 10	283	203	71.7%	54.7%	96
case 11	29	15	51.7%	32.5%	36
case 12	233	94	40.3%	41.6%	177
case 13	336	169	50.3%	35.6%	357
case 14	1430	913	63.8%	50.7%	637
case 15	72	37	51.4%	43.8%	49
case 16	158	88	55.7%	57.4%	44
case 17	47	25	53.2%	31.1%	64
case 18	314	109	34.7%	41.1%	247
case 19	26	13	50.0%	34.1%	30
case 20	284	182	64.1%	53.4%	106
case 21	73	49	67.1%	39.0%	64
case 22	11	1	9.1%	26.3%	20
case 23	275	136	49.5%	37.1%	269
case 24	134	70	52.2%	32.6%	168
case 25	1933	878	45.4%	43.2%	1,349
case 26	29	14	48.3%	38.9%	26
case 27	165	67	40.6%	28.1%	266
case 28	41	16	39.0%	26.0%	75
case 29	271	150	55.4%	50.0%	127
case 30	26	19	73.1%	45.9%	16
case 31	45	26	57.8%	37.0%	44
Total	34607	22011	63.6%	60.9%	9,049
			Campus Degree Index		1.26

Degree Index Tab

- This is the At-Risk degree performance for OHIO.
- For the green cases, our graduation rates are better than the state average
- Some cases have very few students in them while others are large
- The Added FTE is the number of FTE added to our number of degree through the weights.
- The combination of our total FTE degrees plus the added FTE compared to the total FTE gives a campus index of 1.26 – the weighting adds about 26% to our FTE.
- The degree indexes range from 1.15 (Miami) to 1.78 (Central) with an average of 1.35, which simply means we have a below average percentage of at-risk students compared to other universities.

To provide a context of how we compare to the statewide averages, here is the specific OU data that is part of those state averages. The state average is also shown and the cases where are graduation rate is above the state rate so we do a good job graduating at-risk students.

When you apply the weights from the previous slide to our numbers you get the final column and when you compare out total graduates to the toral with added FTE you get a ratio of 1.26. This Campus Degree Index is a relative measure of the concentration of degrees awarded to at-risk students. The values range from a high of 1.78 at Central with an average of 1.35 so we have a below number of our graduates being considered at-risk

OU Degree Subsidy

Degrees are divided into four categories –
Resident, Resident At-Risk, Non-Resident and Non-Resident At-Risk

Level	subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	3-Year Avg Degree Awarded	3-Yr Avg Resident Degree Credits
5	Accounting	77.7	9.1	0.55	0.0	94.67	77.70
5	Agriculture	1.2	0.2	0.00	0.0	0.00	1.21
5	Allied Health	187.6	35.5	0.97	0.1	220.33	187.56
5	Anthropology	15.1	2.2	0.06	0.0	18.33	15.13
5	Architecture	0.5	0.0	0.00	0.0	0.00	0.46
5	Art	31.3	4.3	0.40	0.0	39.33	31.35
5	Biology	250.3	30.1	1.42	0.1	288.67	250.35
5	Business Informat	112.1	9.3	1.18	0.1	136.67	112.07
5	Chemistry	32.8	3.4	0.30	0.0	39.00	32.76
5	Civil Engineering	29.7	3.2	0.34	0.0	36.00	29.72
5	Communications	358.4	50.5	3.26	0.3	451.67	358.40
5	Communications	59.2	6.0	0.37	0.0	67.33	59.17
5	Computer Scienci	85.2	15.6	0.54	0.1	125.00	85.22

Degrees are actually converted into Degree Credits which are the number of credits towards the degree that were taken at our university. This way if a student takes credits at multiple universities, each university gets partial credit for that degree once it is awarded. So here the 94.67 accounting undergraduate degrees (3-year average) is actually 77.7 degree credits

Degrees Tab

Now that we have risk weights we can go through the four combinations of residency and risk when determining the number of degrees that will be used in the subsidy calculation.

For the first, combination – overall resident degree credits without risk considered. Here you can see our three-year average degrees awarded in the seventh column. When funding is calculated for degrees, the concept of degree credits is used as opposed to simply counting the number of degrees. This is done to recognize that students transferring or student completing an associate degree and then going to a different institution for a bachelors will only be taking part of their degree at the institution where they ultimately complete their degree. So degree credits are used to allow for fractions of degrees.

For example, on the first line you see the information for accounting bachelors degree. We awarded 94.67 as our three-year average. This is then converted into degree credits of 77.7. So we produced the equivalent of 77.7 full degrees when looking at the credits completed here. So the value that ends up under the Resident Degree Credits column is 77.7

OU Degree Subsidy

For At-Risk Degrees the total At-Risk degrees are broken into the 31 cases

Level	subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	Resident at-risk weights			3-Yr Avg At-Risk Degree Credits	case 01	case 02	case 03	...	case 31
						9.4%	38.9%	39.3%						
5	Accounting	77.7	9.1	0.55	0.0	30.09	9.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Agriculture	1.2	0.0	0.00	0.0	0.62	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.00
5	Allied Health	187.6	35.5	0.97	0.1	91.08	27.10	4.03	0.75	0.00	0.00	0.00	0.00	0.00
5	Anthropology	15.1	2.2	0.06	0.0	7.09	2.95	0.20	0.00	0.00	0.00	0.00	0.00	0.00
5	Architecture	0.5	0.0	0.00	0.0	0.07	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Art	31.3	4.3	0.40	0.0	15.36	7.14	0.28	0.00	0.00	0.00	0.00	0.00	0.00
5	Biology	250.3	30.1	1.42	0.1	104.02	48.65	1.38	0.20	0.00	0.00	0.00	0.00	0.00
5	Business Informat	112.1	9.3	1.18	0.1	32.91	15.31	0.23	0.00	0.00	0.00	0.00	0.00	0.00
5	Chemistry	32.8	3.4	0.30	0.0	14.80	7.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Civil Engineering	29.7	3.2	0.34	0.0	13.29	6.55	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	Communications	358.4	50.5	3.26	0.3	144.61	55.27	8.13	1.13	0.00	0.00	0.00	0.00	0.00
5	Communications	59.2	6.0	0.37	0.0	24.88	8.08	0.34	0.20	0.00	0.00	0.00	0.00	0.00
5	Computer Science	85.2	15.6	0.54	0.1	43.87	13.92	1.38	3.07	0.00	0.00	0.00	0.00	0.00

Then each case is multiplied by its weight (e.g. the 9.43 in case01 times the weight of 9.4%) and the sum of all those weighted case credits is the total At-Risk Credits for that degree. So, the unweighted 30.09 At-Risk Degree Credits for Accounting becomes 9.1 Degree Credits

Funding for At-Risk degrees applies only to undergraduate (Associate and Bachelor) and NOT to graduate degrees.

Degrees Tab

For at-risk students, we also use degree credits. In this case the three-year average degree credit is equal to 30.09 degrees for accounting (first column in the right section). Those 30 degrees fall into one of the 31 risk cases so to the right of this column the 30.09 degree credits are spread across the 31 risk cases. You can see that 9.43 degrees fall into case 1 and the remainder fall into other cases. Once the degrees are broken into the 31 buckets, the weights we derived earlier are applied to those degrees. You can see the weight of 9.4% for case one at the top. So, the weight is applied to each case and all 31 of those weighted results are added together to get the total that shows up in the Resident Degree At-Risk Credit column. For accounting, that total is 9.1. So, once you weight the 30.09 degree credits, you end up with 9.1 as the number to be used in the subsidy calculation.

OU Degree Subsidy

For Non-Resident Degree Credits, the process is the similar but the total Degree Credits are calculated by taking the three-year average degree credits times 0.5 to weight non-resident degree at 50% and then times an institutional non-resident rate which is the percentage of non-resident students from that university working in Ohio after graduation. This is a different number for each institution (11.4% for OHIO). So, while there is some subsidy for awarding degrees to non-residents, it is only 5.7% of the resident rate for us.

$$9.66 \text{ degree credits} * 50\% * 11.4\% = 0.55$$

subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	non resident degree credits
Accounting	77.7	9.1	0.55	0.0	9.66
Agriculture	1.2	0.2	0.00	0.0	0.00
Allied Health	187.6	35.5	0.97	0.1	17.02
Anthropology	15.1	2.2	0.06	0.0	1.00
Architecture	0.5	0.0	0.00	0.0	0.00
Art	31.3	4.3	0.40	0.0	6.96
Biology	250.3	30.1	1.42	0.1	24.89
Business Informat	112.1	9.3	1.18	0.1	20.67
Chemistry	32.8	3.4	0.30	0.0	5.24
Civil Engineering	29.7	3.2	0.34	0.0	5.91
Communications	358.4	50.5	3.26	0.3	57.10
Communications	59.2	6.0	0.37	0.0	6.48
Computer Scienc	85.2	15.6	0.54	0.1	9.50

Institutional Non-Resident Rates

AKRON	33.5%
BOWLING GREEN	22.8%
CINCINNATI	23.5%
CLEVELAND STATE	28.2%
CENTRAL STATE	25.0%
KENT STATE	22.4%
MIAMI	10.9%
OHIO STATE	21.5%
OHIO UNIV	11.4%
SHAWNEE ST.	22.6%
TOLEDO	30.9%
WRIGHT ST.	12.2%
YOUNGSTOWN ST.	32.2%

- For Non-Resident At-Risk Degree Credits the process is the same as it is for Resident At-Risk with the credits first reduced by 50% and then by our 11.4% institutional rate.
- In traditional Athens campus graduate programs all students on assistantship are considered resident even if they are not Ohio residents.

Degrees Tab

For Non-resident degree credits listed in the last column, the number is first cut in half and then a weight is applied based on the percent of non-resident students at each university that are working in the state one year after graduation based on state jobs data. So, for us, that percentage is 11.4% so the non-resident credits are reduced by an additional 11.4%. So, when you combine both reductions, you end up with 5.7% so our 9.66 non-resident degree credits in accounting are reduce down to 0.55 for purposes of calculating subsidy.

For non-resident at-risk student the degree credits are again spread across the 31 risk cases and the resulting total is decreased by 50% and then another 11.4%. If you look down the Non-Resident At-Risk Degree credits column you can see that this results in very small numbers for purposes of calculating subsidy.

OU Subsidy Degree Earnings

- Now that we have the four degree credit categories for Resident, Resident At-Risk, Non-Resident and Non-Resident At-Risk Those are multiplied by the Degree Cost to get four Degree cost numbers

subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	Degree Cost	Resident Degree Costs	Resident Degree At-Risk Costs	Non-Resident Degree Costs	Non-Resident At-Risk Degree Costs	Resident Degree SSI	Resident Degree At-Risk SSI	Non-Resident Degree SSI	Non-Resident At-Risk Degree SSI
Accounting	77.7	9.1	0.55	0.0	\$ 63,003	\$ 4,895,660	\$ 570,291	\$ 34,747.20	\$ 2,808.65	\$ 826676.84	\$ 96298.92	\$ 5867.38	\$ 474.27
Agriculture	1.2	0.2	0.00	0.0	\$ 94,111	\$ 113,468	\$ 21,737	\$ -	\$ -	\$ 19160.10	\$ 3670.47	\$ 0.00	\$ 0.00
Allied Health	187.6	25.5	0.97	0.1	\$ 87,395	\$ 16,391,202	\$ 3,099,296	\$ 84,920.23	\$ 7,222.17	\$ 2767973.07	\$ 523244.43	\$ 14339.56	\$ 1219.53
Anthropology	15.1	2.2	0.06	0.0	\$ 68,204	\$ 1,032,087	\$ 147,543	\$ 3,884.01	\$ -	\$ 174277.24	\$ 24914.04	\$ 657.54	\$ 0.00
Architecture	0.5	0.0	0.00	0.0	\$ 94,014	\$ 43,379	\$ 1,907	\$ -	\$ -	\$ 7324.98	\$ 321.99	\$ 0.00	\$ 0.00
Art	31.3	4.3	0.40	0.0	\$ 69,837	\$ 2,189,352	\$ 297,716	\$ 27,742.81	\$ 555.64	\$ 869692.11	\$ 50272.01	\$ 4684.63	\$ 93.82
Biology	250.3	30.1	1.47	0.1	\$ 87,888	\$ 22,000,620	\$ 2,640,756	\$ 124,900.78	\$ 11,067.40	\$ 3725343.48	\$ 447435.43	\$ 21990.64	\$ 368.83
Business Informat	112.3	9.3	1.18	0.1	\$ 65,377	\$ 7,326,806	\$ 607,328	\$ 77,149.34	\$ 4,459.34	\$ 1237198.19	\$ 102552.80	\$ 13027.37	\$ 753.00
Chemistry	32.8	3.4	0.30	0.0	\$ 91,488	\$ 2,997,015	\$ 312,688	\$ 27,376.18	\$ 1,690.27	\$ 506073.41	\$ 52800.20	\$ 4622.72	\$ 285.42
Civil Engineering	29.7	3.2	0.34	0.0	\$ 103,858	\$ 3,087,044	\$ 328,444	\$ 35,061.39	\$ 1,609.38	\$ 512175.51	\$ 55460.80	\$ 5920.44	\$ 271.76
Communications	398.6	50.5	3.26	0.3	\$ 61,388	\$ 22,001,495	\$ 3,102,584	\$ 200,137.03	\$ 16,566.29	\$ 3725153.42	\$ 529899.57	\$ 33794.97	\$ 2797.37
Communications	59.2	6.0	0.37	0.0	\$ 69,382	\$ 4,105,465	\$ 417,485	\$ 25,673.43	\$ 1,450.47	\$ 693245.28	\$ 70496.20	\$ 4335.19	\$ 244.93
Computer Science	85.2	15.6	0.54	0.1	\$ 80,790	\$ 6,885,215	\$ 1,258,680	\$ 43,820.33	\$ 4,104.44	\$ 1162631.44	\$ 212539.64	\$ 7399.46	\$ 693.07

\$4,484,195,386
Grand total cost
for all degrees in
the state

Appropriation =
\$791,306.906 so
SSI funding is
16.9% of cost

So multiply the
four Degree Cost
numbers by 16.9%
to get the SSI
funding

Resident Degree SSI	Non-Resident Degree SSI	Resident Degree At-Risk SSI	Non-Resident At-Risk Degree SSI
\$71,085,351	\$9,437,550	\$ 11,428,643	\$ 132,128

Degrees Tab

Now that we have the four columns of degree credits for the combination of residency and risk, this is the conversion of those numbers into subsidy

Those four numbers are all multiplied by the costs in the Degree Cost column. This produces four columns of Degree costs. The total of all the costs across all 13 institutions is \$4.5B. Compared to the appropriation of 791M, this means that subsidy will cover 16.9% of the cost for a degree.

So, the final set of four columns simply takes the values in the four degree cost columns and multiplies them by 16.9% to get the four SSI columns at the right.

If you add up those columns for all our degrees from associate through masters the totals are shown at the bottom right. As you can see the amounts for non-residents are smaller than the corresponding resident amounts with the amount for non-resident at-risk students being 132K

When projecting future degree subsidy you have a long lag for undergraduate activity when you consider that it will take four years to reach the degree and subsidy is based on a three-year average that is lagged a year which totals up to 8 years before you get the full degree subsidy of that student.

Doctoral Subsidy

IUC Doctoral Distributions					
Inst	Allocation of Remaining Doctoral Set Aside				Total Doc Set Aside
	Doctoral Set Aside	Degree Cost	Research	Remainder*	
AKRN	\$2,292,588	\$6,804,910	\$767,661	\$0	\$9,865,160
BGSU	\$1,297,687	\$4,294,176	\$258,706	\$0	\$5,850,569
CINC	\$8,297,238	\$11,925,317	\$12,237,341	\$0	\$32,459,896
CLEV	\$727,117	\$2,294,764	\$1,605,572	\$0	\$4,627,452
KENT	\$6,075,510	\$9,227,900	\$562,669	\$0	\$15,866,078
MIAM	\$1,427,321	\$3,063,770	\$437,879	\$0	\$4,928,970
OHSU	\$19,719,202	\$38,912,816	\$26,364,691	\$0	\$84,996,708
OHUN	\$3,469,908	\$6,666,106	\$884,952	\$0	\$11,020,966
TLDO	\$1,809,734	\$6,104,386	\$1,224,375	\$0	\$9,138,494
WSUN	\$1,327,440	\$3,204,568	\$1,789,922	\$0	\$6,321,930
YNGS	\$148,665	\$701,622	\$131,663	\$0	\$981,949
NECM	\$15,569	\$15,619	\$342,546	\$0	\$373,735
Total	\$46,607,977	\$93,215,953	\$46,607,977	\$0	\$186,431,907
Actual % used	25.00%	50.00%	25.00%		

- There is a fixed total (\$186M) allocated to doctoral activity
- Divided into three components
 - Doctoral Set Aside (completions) – 25% - \$46.6M
 - Degrees – 50% - \$93.3M
 - Research Funding – 25% - \$46.6M
 - There was originally supposed to be a fourth component to balance the research funding metric which is tied to STEM-related activity. It was supposed to give credit for other doctoral activity levels in social sciences and humanities but it was never added

Doc Set Aside Tab

Now for the final component of the Subsidy calculation – Doctoral Subsidy

Subsidy for doctoral activity has its own calculation with its own separate appropriation. The appropriation is divided into 3 pools

25% for doctoral credit hours – 46.6 M

50% for doctoral degrees – 93M

25% for research funding – 46.6M

Originally, the plan was to have another factor to apply to the non-STEM programs where research funding does not really apply. Under this plan the pools would have been 50% for degrees, 25% for research funding and 25% on this other factor with no allocation for credit hours. But since this never happened, the credit hour component was kept.

Doctoral Set Aside

Enrollments	FTE Completed FY2018			FTE Completed FY2019			FTE Completed FY2020			3 year avg.	Percent Share of Doc Course Completions	Total Costs	Percent Share of Doc Course Completions Costs	Doc Set Aside
	Doc 1	Doc 2	Doc Total	Doc 1	Doc 2	Doc Total	Doc 1	Doc 2	Doc Total					
AKRN	76.0	350.9	427	67.2	285.3	353	58.4	254.4	313	364	4.83%	\$ 57,676,580	4.92%	\$ 2,292,588
BGSU	134.2	81.8	216	129.0	79.6	209	131.8	86.0	218	214	2.84%	\$ 32,647,003	2.78%	\$ 1,297,687
CINC	314.1	961.0	1,275	308.7	997.6	1,306	325.4	1,064.9	1,390	1,324	17.55%	\$ 208,740,610	17.80%	\$ 8,297,238
CLEV	48.1	73.0	121	53.3	63.8	117	51.6	64.1	116	118	1.56%	\$ 18,292,691	1.56%	\$ 727,117
KENT	638.6	398.5	1,037	617.2	374.1	991	602.9	376.4	979	1,003	13.29%	\$ 152,846,727	13.04%	\$ 6,075,510
MIAM	144.1	86.3	230	150.3	87.8	238	150.9	87.9	239	236	3.13%	\$ 35,908,314	3.06%	\$ 1,427,321
NECM	0.0	1.5	2	0.0	4.3	4	0.0	1.5	2	2	0.03%	\$ 391,683	0.03%	\$ 15,569
OHSU	1156.6	1928.3	3,085	1176.2	2034.5	3,211	1173.1	2077.4	3,250	3,182	42.18%	\$ 496,092,596	42.31%	\$ 19,719,202
OHUN	284.0	282.9	567	281.5	290.1	572	277.7	283.0	561	566	7.51%	\$ 87,295,393	7.44%	\$ 3,469,908
TLDO	115.9	202.1	318	102.0	199.1	301	95.2	161.1	256	292	3.87%	\$ 45,529,009	3.88%	\$ 1,809,734
WSUN	130.8	102.3	233	128.5	98.7	227	109.7	84.0	194	218	2.89%	\$ 33,395,519	2.85%	\$ 1,327,440
YNGS	17.8	4.0	22	21.3	4.2	26	22.0	5.6	28	25	0.33%	\$ 3,740,081	0.32%	\$ 148,665
	3,060	4,473	7,533	3,035	4,519	7,555	2,999	4,546	7,545	7,544	100.0%	\$1,172,556,206	100.00%	

- Doctoral Set Aside is tied to course completions over three years. Doctoral courses fall into two models – Doc 1 and Doc 2
- We have a three average of 566 FTE which is 7.51% statewide
- These six Doc 1 and Doc 2 FTEs are multiplied by the cost for the matching model and added up to get total cost for the completions
- Our total cost is 7.44% of the statewide total – it is slightly different that the FTE % since cost depends on the mix between Doc 1 and Doc 2.
- The appropriation of 46.6M covers 4% of the \$1.17B in total cost so we get 4% of our \$87.3M in cost or about \$3.5M for our doctoral course completions.
- The remaining 96% of the cost falls to us.

Model Costs	FY22
Doc 1	\$49,062
Doc 2	\$53,655

Doc Set Aside Tab

For doctoral credit hour production, we have three years of credit hours Doctoral courses fall into two models – Doc 1 and Doc 2 depending on the discipline. The costs for Doc 2 credits is slightly more. When do a 3-year average of credits, we have 566 of a total across all the universities of 7,544 or 7.51%

The six numbers for Doc 1 and Doc 2 for the three year are multiplied by the corresponding model cost to get the Total Cost. Those costs are added up across all the institutions to get 1.2B. The total appropriation of 46.6M is basically 4% of the total cost that is covered by subsidy.

We have 7.44% of total costs. This percentage is applied to the total appropriation of 46.6M to get a subsidy of 3.5M.

Our percentage share of credits is slightly higher than our percentage for credits because we tend to have more of the lower cost Doc 1 credits compared to Doc 2

Doctoral Degree Earnings

subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	Degree Cost	Resident Degree Costs
Arts & Humanities	28.3	0.0	0.00	0.0	\$ 205,245	\$ 5,815,272
Education	30.3	0.0	0.00	0.0	\$ 195,411	\$ 5,927,455
Engineering	16.0	0.0	0.00	0.0	\$ 226,450	\$ 3,623,195
Health	2.3	0.0	0.00	0.0	\$ 203,564	\$ 474,982
Natural Science &	37.0	0.0	0.00	0.0	\$ 241,195	\$ 8,924,229
Social & Behavior	16.7	0.0	0.00	0.0	\$ 203,337	\$ 3,388,948
Unclassified	3.3	0.0	0.00	0.0	\$ 241,565	\$ 805,215
						\$ 28,959,295

Subject Mappings

<u>Arts & Humanities</u>
English
Communication Studies
Journalism
Media Arts & Studies
Comparative Arts
Hearing/Speech
<u>Natural Science</u>
Biological Sciences
Chemistry
Math
Physics
Blant Biology
<u>Health</u>
Comm Studies
<u>Social Science</u>
History
Psychology
<u>Unclassified</u>
Undecided COM

For Doctoral Degree Subsidy, degree credits are still used. There is no At-Risk subsidy at the graduate level and since all our doctoral program students are in Athens and on assistantships, there are no credits listed for Non-Resident degrees

Inst	Cost of PhD Degrees (degrees * cost)	Shares of PhD Degree Cost	Degree SSI
AKRN	\$29,562,295	7.30%	\$6,804,910
BGSU	\$18,655,012	4.61%	\$4,294,176
CINC	\$51,806,670	12.79%	\$11,925,317
CLEV	\$9,969,049	2.46%	\$2,294,764
KENT	\$40,088,389	9.90%	\$9,227,900
MIAM	\$13,309,810	3.29%	\$3,063,770
OHSU	\$169,047,361	41.74%	\$38,912,816
OHUN	\$28,959,295	7.15%	\$6,666,106
TLDO	\$26,519,034	6.55%	\$701,622
WSUN	\$13,921,474	3.44%	\$3,204,568
YNGS	\$3,048,028	0.75%	\$701,622
NECM	\$67,855	0.02%	\$15,619
	\$404,954,272	100.00%	\$93,215,953
			23.0%

- The degree credits are multiplied by the cost to get the total degree costs.
- The costs for all the doctoral degrees across the state are totaled and each university gets their proportional share of the \$93M available.
- The \$93M works out to be about 23% of the total costs.

Doc Set Aside Tab

For the 50% (93M) of the appropriation set aside for degree production, the degree credit for each subject are collected – notice that all doctoral student fall into the resident column. This is because all doctoral students are on assistantships and when they are the state considers them to be residents regardless of whether the came from out-of-state or internationally.

As before, the subjects do not match directly to majors. The table to the right gives you an idea of which departments are matched to which subject.

These degree credits are multiplied by the cost to get the degree costs which is then totaled to get 29M for us.

In the table at the bottom, you can see the total costs for all the institutions of 405M. Against the 93M appropriated that means that subsidy covers 23% of the cost.

For us, our 29M is 7.15% of the total so we get 7.15% of the 93M or 6.7M

Doctoral Research Earnings

Inst	Academic Institution	Federally Financed Academic R&D Expenditures	State/Local Govt Financed Academic R&D Expenditures	Industry Financed Academic R&D Expenditures	Institutionally Financed Academic R&D Expenditures	Other Academic R&D Expenditures	Institution Total	Sum of Federal, Industry & Other	Portion of Federal Funds, Source = HHS	Eligible R&D Expenditures for Doctoral Set-Aside
BGSU	Bowling Green State Univ, All Campuses	\$ 5,852	\$ 1,443	\$ 498	\$ 9,126	\$ 107	\$ 17,026	\$ 6,457	\$1,321	\$5,797
CNTR	Central State University	\$ 2,517	\$ 1,249	\$ -	\$ -	\$ -	\$ 3,766	\$ 2,517	\$0	\$2,517
CLEV	Cleveland State University	\$ 51,475	\$ 2,810	\$ 6,711	\$ 18,823	\$ 258	\$ 80,077	\$ 58,444	\$44,940	\$35,974
KENT	Kent State University, All Campuses	\$ 13,350	\$ 447	\$ 1,936	\$ 31,215	\$ 140	\$ 47,188	\$ 15,426	\$5,638	\$12,807
MIAM	Miami University, All Campuses	\$ 9,755	\$ 1,877	\$ 1,593	\$ 9,085	\$ 70	\$ 22,380	\$ 11,418	\$3,214	\$9,811
NECM	Northeastern Ohio Universities College	\$ 10,107	\$ 132	\$ 2,489	\$ 5,288	\$ -	\$ 18,016	\$ 12,596	\$9,842	\$7,675
OHSU	Ohio State University, All Campuses	\$ 497,651	\$ 62,752	\$ 207,564	\$ 136,923	\$ 24,360	\$ 929,250	\$ 729,575	\$277,710	\$590,720
OHUN	Ohio University, All Campuses	\$ 14,802	\$ 3,942	\$ 6,908	\$ 27,950	\$ 133	\$ 53,735	\$ 21,843	\$4,030	\$19,828
AKRN	University of Akron, All Campuses	\$ 11,796	\$ 4,604	\$ 5,111	\$ 7,713	\$ 796	\$ 30,020	\$ 17,703	\$1,006	\$17,200
CINC	University of Cincinnati, All Campuses	\$ 252,892	\$ 6,716	\$ 106,299	\$ 137,969	\$ 25,920	\$ 529,796	\$ 385,111	\$221,848	\$274,187
TLDO	University of Toledo	\$ 28,273	\$ 928	\$ 3,923	\$ 19,875	\$ 7	\$ 55,006	\$ 34,203	\$13,640	\$27,433
WSUN	Wright State University, All Campuses	\$ 43,428	\$ 10,917	\$ 2,411	\$ 9,377	\$ 75	\$ 64,208	\$ 43,914	\$7,615	\$40,105
YNGS	Youngstown State University	\$ 2,878	\$ 665	\$ 105	\$ 798	\$ 1	\$ 4,447	\$ 2,984	\$68	\$2,950
	Statewide Total	\$ 942,776	\$ 98,582	\$ 347,548	\$ 414,142	\$ 51,867	\$ 1,854,915	\$ 1,342,141	\$ 590,777	\$ 1,046,803

*Numbers are in thousands

From NCES: <https://ncesdata.nsf.gov/ids/herd>

Inst	FY 2019 R&D Expenditures - Federal, Industry & Other	% of Unadjusted Research Expenditures	Eligible Research Expenditures, weighting HHS funding = 50%	Adjusted Research Expenditures	Research SSI
AKRN	\$17,703,000	1.32%	\$17,200,000	1.65%	\$767,661
BGSU	\$6,457,000	0.48%	\$5,796,500	0.56%	\$258,706
CINC	\$385,111,000	28.75%	\$274,186,500	26.26%	\$12,237,341
CLEV	\$58,444,000	4.36%	\$35,974,000	3.44%	\$1,605,572
KENT	\$15,426,000	1.15%	\$12,607,000	1.21%	\$562,669
MIAM	\$11,418,000	0.85%	\$9,811,000	0.94%	\$437,879
OHSU	\$729,575,000	54.46%	\$590,720,000	56.57%	\$26,364,691
OHUN	\$21,843,000	1.63%	\$19,828,000	1.90%	\$884,952
TLDO	\$34,203,000	2.55%	\$27,433,000	2.63%	\$1,224,375
WSUN	\$43,914,000	3.28%	\$40,104,500	3.84%	\$1,789,922
YNGS	\$2,984,000	0.22%	\$2,950,000	0.28%	\$131,663
NECM	\$12,596,000	0.94%	\$7,675,000	0.73%	\$342,546
	\$1,339,674,000	100.00%	\$1,044,285,500	100.00%	\$46,607,977

For the Doctoral Research Subsidy component, data is gathered from NSF research expenditure data. Funding from HHS grants is courted at 50%. Total expenditures for each compared to the \$1B state total is used to allocate the \$46.6M appropriated for this component. We account for 1.9% of the total expenditures so our allocation is 1.9% of the \$46.6M or \$884,952.

Doc Set Aside Tab

For the research component, research expenditures in NSF and NIH grants for each university are collected from the Herd site (currently 2019). Expenditures for NIH are discounted 50%.

We have 19M in eligible expenditures compared to a state total of 1.3B or 1.9%. So we get 1.9% of the total appropriation of 46.6m or 884K

Doctoral Subsidy Earnings

IUC Doctoral Distributions					
Inst	Allocation of Remaining Doctoral Set Aside				Total Doc Set Aside
	Doctoral Set Aside	Degree Cost	Research	Remainder*	
AKRN	\$2,292,588	\$6,804,910	\$767,661	\$0	\$9,865,160
BGSU	\$1,297,687	\$4,294,176	\$258,706	\$0	\$5,850,569
CINC	\$8,297,238	\$11,925,317	\$12,237,341	\$0	\$32,459,896
CLEV	\$727,117	\$2,294,764	\$1,605,572	\$0	\$4,627,452
KENT	\$6,075,510	\$9,227,900	\$562,669	\$0	\$15,866,078
MIAM	\$1,427,321	\$3,063,770	\$437,879	\$0	\$4,928,970
OHSU	\$19,719,202	\$38,912,816	\$26,364,691	\$0	\$84,996,708
OHUN	\$3,469,908	\$6,666,106	\$884,952	\$0	\$11,020,966
TLDO	\$1,809,734	\$6,104,386	\$1,224,375	\$0	\$9,138,494
WSUN	\$1,327,440	\$3,204,568	\$1,789,922	\$0	\$6,321,930
YNGS	\$148,665	\$701,622	\$131,663	\$0	\$981,949
NECM	\$15,569	\$15,619	\$342,546	\$0	\$373,735
Total	\$46,607,977	\$93,215,953	\$46,607,977	\$0	\$186,431,907
Actual % used	25.00%	50.00%	25.00%		

- Each university gets a proportion share of the each of the three appropriation pools
- Doctoral Set Aside is for FTE production and we get 7.44% of the state pool of \$46.6M = \$3,469,908.
- For Degree Cost we get 7.15% of the \$93.2M allocated to that component = \$6,666,106
- For Research we get 1.9% of the \$46.6M allocated to that component = \$884,952
- So our total doctoral funding is 11,020,966 or 5.9% of the \$186,431,907.

Doc Set Aside Tab

Putting it all together, we get

7.44% of the completion pool – 3.5M

7.15% of the degree pool – 6.7M

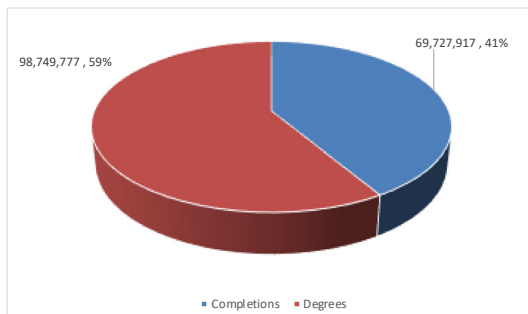
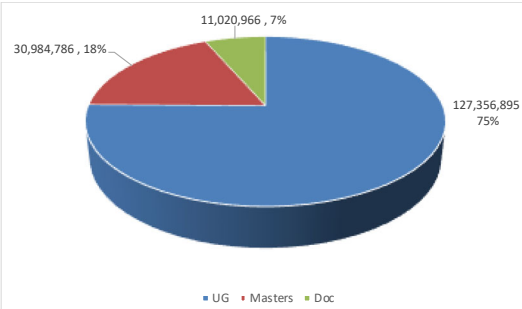
1.9% of the research funding pool – 884K

Our total of 11M is 5.9% of the total 186M appropriation

Summary of Subsidy Earnings

FTE Completions	53,039,670
At-Risk Completions	933,251
Resident Degree Credits	71,085,351
Non-Resident Degree Credits	9,437,550
Resident Degree Credits At-Risk	11,428,643
Non-Resident Degree Credits At-Risk	132,128
Doctoral Set Aside	11,020,966
Medical	22,620,213
	179,697,771

- 75% of our Subsidy results from our Undergraduate activity with 18% from our Masters programs and 7% from our doctoral programs.
- Across all three levels, 59% of our subsidy results from degree completion and 41% from course completions
- Overall, including Medical funding we receive \$179.7M of the total \$1.58B allocated – 11.35%



• Includes Doctoral completion and degree components

Summary Tab

To summarize, here are all the sources of subsidy that we get and their amounts are presented in the beginning

If you group these into level, we get 127M (75%) of our funding from our undergraduate programs, 31M (18%) from our masters programs and 11M (7%) from our doctoral programs

If you group these into subsidy from completions vs degrees, we get 99M (59%) from degrees and 70M (41% from completions once you add the doctoral components in.