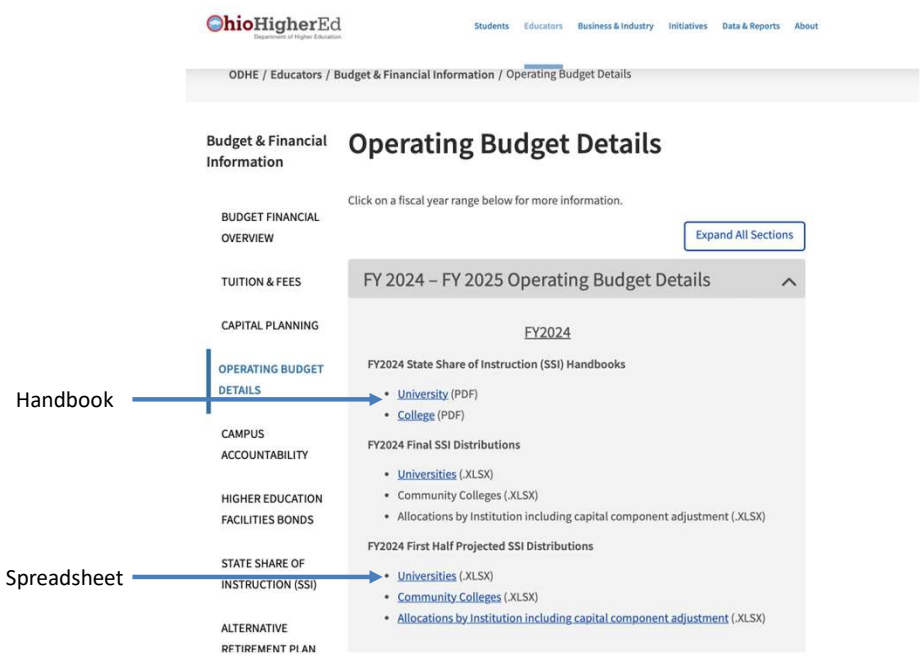
Understanding Subsidy

Budget Planning Council
11-27-23

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



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

FY24 State Appropriation - Universities		
Completions	485,453,790	30%
Degrees	805,866,186	50%
Doctoral	189,862,073	12%
Medical	130,550,322	8%
	1,611,732,371	

- 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 ($8.3M of the $485M – 1.7%)
- Degrees = reimbursement for the share of credits when degrees is ultimately granted
  - Reimbursement for resident and non-resident (50% of those staying in state – $88M = 11%)
  - Allocation for risk by five categories (age, financial, academic, race, 1st Gen) – $93M – 11.5%
- 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 FY24, the Main Campus appropriation is $1.61B. 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 FY24 Subsidy Projection

			Share
FTE Conpletions		49,770,699	28.7%
At Risk Completions		858,128	0.5%
Resident Degree Credits		67,942,875	39.2%
Non-Resident Degree Credits		10,835,974	6.3%
Resident Degree Credits At-Risk		9,616,365	5.5%
Non-Resident Degree Credits At-Risk		151,758	0.1%
Doctoral Set Aside		11,172,998	6.4%
Medical		22,949,730	13.2%
		173,298,527	

**Athens and Regional Campuses*

- 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 < $2,190 based on FAFSA)
  - academic risk
    - ACT English or Math <17
    - In developmental courses if no ACT

- 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

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 ($50M) and the additional subsidy for at risk students completing courses ($858K). 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 a four allocations for degrees when you combine resident and non-resident with At-Risk. We receive $68M for Resident degree completions and $10.8M 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 $9.6M for resident students and $152K 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 2024 Model Costs	Level	Grad Weight	STEM Target % from FY 2007 Model run	Reimburs e-ment % of Cost	Reimburse-ment Cost FY 2024
AH 1	$9,893	UG	0	0	1.00	$9,893
AH 2	$14,268	UG	0	0	1.00	$14,268
AH 3	$17,722	UG	0	0	1.00	$17,722
AH 4	$25,215	UG	0	0	1.00	$25,215
AH 5	$41,603	Grad	0.0425	0	1.04	$43,371
AH 6	$37,838	Grad	0.0425	0	1.04	$39,447
BES 1	$9,726	UG	0	0	1.00	$9,726
BES 2	$9,403	UG	0	0	1.00	$9,403
BES 3	$12,825	UG	0	0	1.00	$12,825
BES 4	$15,305	UG	0	0	1.00	$15,305
BES 5	$23,170	Grad	0.0425	0	1.04	$24,155
BES 6	$25,931	Grad	0.0425	0	1.04	$27,033
BES 7	$33,864	Grad	0.0425	0	1.04	$35,303
STEM 1	$9,801	UG	0	0.00%	1.00	$9,801
STEM 2	$12,983	UG	0	0.17%	1.00	$13,005
STEM 3	$14,920	UG	0	61.50%	1.62	$24,096
STEM 4	$17,268	UG	0	69.20%	1.69	$29,217
STEM 5	$21,746	UG	0	42.22%	1.42	$30,927
STEM 6	$20,099	Grad	0.0425	83.73%	1.8798	$37,782
STEM 7	$26,404	Grad	0.0425	39.55%	1.4380	$37,971
STEM 8	$42,099	Grad	0.0425	52.50%	1.5675	$65,992
STEM 9	$56,307	Grad	0.0425	9.36%	1.1361	$63,968

Statewide Costs	3,959,452,964
Appropriation	485,453,790
Effective Reimbusement Rate	12.3%

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 FY19, FY20 and FY21 – 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 12.3% 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.

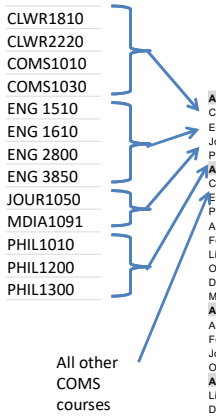
The amount of subsidy provided for course completions is weighted by the cost of producing an FTE (30 SCH) across the state. To simplify the calculation while still reflecting the fact that courses in different disciplines and at different levels (intro, major and masters) have different costs, courses 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 $485M that means that the amount of Subsidy earned for credit hour production is a fixed percentage (12.3%) of the reimbursement cost for each model.

Subsidy Models



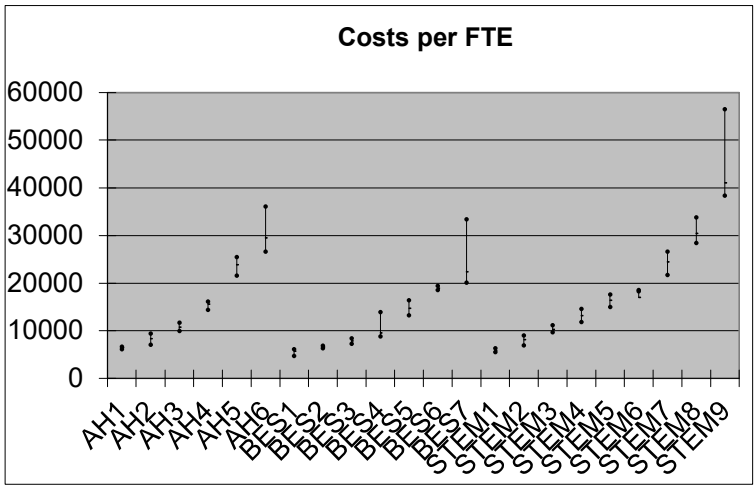
	Statewide Cost
AH1	
Communication	6122
English	6410
Journalism	6543
Philosophy and Religion	6675
AH2	
Communication	9115
English	9437
Philosophy and Religion	9361
Art	7040
Foreign Language	7194
Liberal Arts	7420
Other Visual/Performing	8934
Drama	8063
Music	7465
AH3	
Art	11162
Foreign Language	9968
Journalism	10209
Other Visual/Performing	11737
AH4	
Liberal Arts	14381
Drama	16128
Music	15615
AH5	
Art	25114
Communication	25206
English	21614
Foreign Language	24307
Journalism	25451
AH6	
Drama	30248
Liberal Arts	36128
Music	29747
Other Visual/Performing	26627
Philosophy and Religion	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 form 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 with 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	Completion SSI	At-Risk SSI	Total SSI	SSI oper Completed FTE
AH 1	9,893	677	201	821,629	37,176	858,805	978
AH 2	14,268	1,399	505	2,447,579	71,828	2,519,407	1,323
AH 3	17,722	1,134	336	2,464,581	44,808	2,509,389	1,707
AH 4	25,215	360	92	1,111,781	15,874	1,127,655	2,498
AH 5	41,603	161	-	854,739	-	854,739	5,318
AH 6	37,838	245	-	1,184,486	-	1,184,486	4,836
BES 1	9,726	274	99	326,767	12,438	339,205	910
BES 2	9,403	894	265	1,030,645	31,807	1,062,452	917
BES 3	12,825	858	331	1,349,539	33,277	1,382,816	1,163
BES 4	15,305	3,719	1,177	6,978,445	113,016	7,091,461	1,448
BES 5	23,170	1,009	-	2,989,207	-	2,989,207	2,962
BES 6	25,931	244	-	809,264	-	809,264	3,314
BES 7	33,864	297	-	1,286,018	-	1,286,018	4,328
STEM 1	9,801	866	325	1,041,177	63,737	1,104,913	927
STEM 2	12,983	1,611	552	2,568,486	73,865	2,642,352	1,222
STEM 3	14,920	815	249	2,408,370	72,975	2,481,345	2,332
STEM 4	17,268	3,320	1,411	11,893,532	267,610	12,161,142	2,570
STEM 5	21,746	520	120	1,972,599	19,716	1,992,314	3,113
STEM 6	20,099	105	-	484,800	-	484,800	4,632
STEM 7	26,404	786	-	3,660,560	-	3,660,560	4,655
STEM 8	42,099	225	-	1,823,673	-	1,823,673	8,091
STEM 9	56,307	34	-	262,824	-	262,824	7,843
		19,555	5,662	49,770,699	858,128	50,628,827	
Undergraduate		16,449	5,662	36,415,128	858,128	37,273,256	
Graduate		3,106		13,355,571		13,355,571	

- Average of 3-years of data CY20, 21 and 22.
- 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 15.9% of the total while the subsidy for graduate completions is 26.4% of the total revenue since it costs more to produce graduate FTE

Pivoted data from Subj Level Tab

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 FY24 that would be CY20, CY21 and CY22. So, when a program starts and begins offering credits there is a lag of four years 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 12.3%. 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 87.7% statewide while for At-Risk it is 76.4%. So, 87.7%/76.4% = 114.8% so AH1 completions will get an 14.8% extra weight.
- For AH2 the weight is 7.9% 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	17,765	15,584	87.7%	11,076	8,460	76.4%	**14.8%**
AH 2	26,191	23,949	91.4%	16,096	13,638	84.7%	**7.9%**
AH 3	18,334	17,184	93.7%	9,698	8,577	88.4%	**6.0%**
AH 4	6,448	5,975	92.7%	2,892	2,541	87.9%	**5.4%**
BES 1	5,540	5,087	91.8%	3,737	3,111	83.3%	**10.3%**
BES 2	17,100	15,485	90.6%	10,317	8,482	82.2%	**10.1%**
BES 3	13,719	12,779	93.1%	11,055	9,694	87.7%	**6.2%**
BES 4	73,314	69,217	94.4%	43,967	39,540	89.9%	**5.0%**
STEM 1	15,114	12,882	85.2%	12,258	9,015	73.5%	**15.9%**
STEM 2	38,380	34,507	89.9%	21,589	17,944	83.1%	**8.2%**
STEM 3	20,239	18,243	90.1%	11,034	9,070	82.2%	**9.7%**
STEM 4	54,504	51,329	94.2%	30,328	27,161	89.6%	**5.2%**
STEM 5	27,538	26,046	94.6%	9,995	9,070	90.7%	**4.2%**

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, 87.7% 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 76.4%.

They then divide the rate for non-risk students by the rate for at-risk students to get 114.8%. Subtracting 1 from this gives a differential of 14.8% so at-risk students are 14.8% 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 14.8% 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		Add On
No Risk	234,521	216,833	92.5%	
At Risk	137,094	118,012	86.1%	
Financial	75,564	65,094	86.1%	6.3%
Academic	34,012	29,976	88.1%	4.3%
Both	27,517	22,943	83.4%	9.1%

- 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 Non-Risk FTE to Non-Risk Completed FTE (92.5%) and compared to the rate for At-Risk categories– financial (86.1%), academic (88.1%) or both (83.4%).
- The differences in these rates creates an add-on percentage that is used to increase the FTE in each category

The three weighted columns multiply the FTE a university has in each risk category times the add-on to create additional FTE that are added to their actual FTE to create the Weighted count of FTE. The ratio of the weighted count to the Total FTE gives you the completion index for each university.

Universities with small amounts of at-risk completions get a smaller index than universities with more activity. We are basically at the average of 1.03 or a 3% add-on.

FY20 - 22 FTES	Inst	No Risk	Financial Only	Academic, Only	Both	Total	Weighted Financial	Weighted Academic	Weighted Both	Weighted Count for Index	Institution Completion Index
Inst	AKRN	13,942	4,642	2,273	2,220	23,077	340	112	242	23,771	**1.03**
Inst	BGSU	18,406	5,463	2,057	1,113	27,039	400	101	121	27,662	**1.02**
Inst	CINC	36,888	9,536	3,546	2,826	52,796	699	174	308	53,976	**1.02**
Inst	CLEV	9,355	5,890	1,163	1,393	17,801	432	57	152	18,442	**1.04**
Inst	CNTL	438	1,324	21	81	1,864	97	1	9	1,971	**1.06**
Inst	KENT	23,955	9,017	6,559	5,437	44,967	661	322	592	46,542	**1.04**
Inst	MIAM	19,736	4,017	1,478	976	26,207	294	73	106	26,680	**1.02**
Inst	OHSU	53,024	14,423	7,047	5,278	79,772	1,057	346	575	81,750	**1.02**
Inst	OHUN	24,969	7,852	3,720	2,763	39,304	575	183	301	40,363	**1.03**
Inst	SHAW	2,784	1,224	710	797	5,516	90	35	87	5,727	**1.04**
Inst	TLDO	15,841	5,914	217	288	22,259	433	11	31	22,735	**1.02**
Inst	WSUN	8,673	3,311	2,413	1,831	16,228	243	118	199	16,788	**1.03**
Inst	YNGS	6,511	2,950	2,809	2,515	14,785	216	138	274	15,413	**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 completion 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 completion index, the overall statewide completion rate for students with no risk versus those with financial, academic or both risks are compared to get the completion percentages. The difference between the completion percentage for Non-Risk students (92.5%) is compared to the percentages for the three risk categories (financial, academic or both) and the differences in those percentages creates an add-on percentage to increase a university's FTE for students in the matching category. So, students with financial risk get a 6.3% 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 our total 39,304 completions, we have an additional 1,059 from the at-risk weights to make the total 40,363. This inflated total is 103% of our actual 39,304 FTE using our completion 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 1.06.

OU Completion Earnings

This is the OBR calculation of our Completion subsidy

Three years of FTE Completions Three years of At-Risk Completions Three-year averages

subject_field	model	FTE Completed CY2020	FTE Completed CY2021	FTE Completed CY2022	At Risk Completed FTE CY2020	At Risk Completed FTE CY2021	At Risk Completed FTE CY2022	3 year average completed FTE	3 year average At Risk FTE	At Risk Weight	At Risk In	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	198.4	157.7	145.8	43.8	32.2	27.6	167.3	34.5	0.05	1.03	1.8	2,560,640	27,046	313,951	3,316	UG
Accounting	BES 6	33.0	39.9	38.6	0.0	0.0	0.0	37.2	0.0	0.00	0.00	0.0	1,004,743	-	123,188	-	G
Accounting	BES 2			0.0			0.0	0.0	0.0	0.10	1.03	0.0	-	-	-	-	UG
Agriculture	STEM 5			0.1			0.0	0.0	0.0	0.04	1.03	0.0	1,031	-	126	-	UG
Allied Health	STEM 4	583.1	490.5	453.7	232.4	192.0	154.9	509.1	193.1	0.05	1.03	10.2	14,874,789	298,646	1,823,743	36,616	UG
Allied Health	Doc 2	18.7	18.1	18.4	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	-	-	-	-	G
Allied Health	STEM 2	166.3	125.0	98.0	68.2	50.8	30.2	129.8	49.7	0.08	1.03	4.2	1,687,595	54,258	206,910	6,652	UG
Allied Health	STEM 7	237.3	281.8	310.5	0.0	0.0	0.0	276.5	0.0	0.00	0.00	0.0	10,499,904	-	1,287,354	-	G
Anthropology	BES 4	51.7	58.0	75.7	16.0	17.4	19.7	61.8	17.7	0.05	1.03	0.9	945,488	13,863	115,923	1,700	UG
Anthropology	BES 1	53.1	63.5	51.9	13.3	16.7	11.4	56.2	13.8	0.10	1.03	1.5	546,284	14,153	66,978	1,735	UG
Anthropology	BES 7	4.9	5.9	2.7	0.0	0.0	0.0	4.5	0.0	0.00	0.00	0.0	160,042	-	19,622	-	G
Architecture	STEM 4	47.2	44.9	50.1	16.3	15.4	19.3	47.4	17.0	0.05	1.03	0.9	1,384,894	26,292	169,797	3,224	UG
Architecture	STEM 7	0.7	0.4	0.9	0.0	0.0	0.0	0.7	0.0	0.00	0.00	0.0	25,314	-	3,104	-	G
Art	AH 3	235.8	249.5	284.6	85.3	85.5	85.4	256.6	85.4	0.06	1.03	5.2	4,547,915	92,867	557,603	11,386	UG
Art	Doc 2	11.0	18.5	20.9	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	-	-	-	-	G
Art	AH 2	109.7	141.7	153.0	36.6	42.5	38.4	134.8	39.2	0.08	1.03	3.2	1,923,281	45,504	235,806	5,579	UG
Art	AH 5	42.6	52.9	52.8	0.0	0.0	0.0	49.4	0.0	0.00	0.00	0.0	2,143,733	-	262,835	-	G
Biology	STEM 4	497.2	473.8	458.2	136.4	118.0	99.2	476.4	117.9	0.05	1.03	6.2	13,919,388	182,308	1,706,604	22,352	UG
Biology	Doc 2	57.9	60.1	67.4	0.0	0.0	0.0	0.0	0.0	0.00	0.00	0.0	-	-	-	-	G
Biology	STEM 2	348.5	319.2	323.7	105.7	90.2	68.8	330.5	88.2	0.08	1.03	7.4	4,297,810	96,260	526,939	11,802	UG
Biology	STEM 8	38.3	35.9	26.7	0.0	0.0	0.0	33.6	0.0	0.00	0.00	0.0	2,220,263	-	272,218	-	G
Business Infor	BES 4	211.1	184.3	168.7	46.2	40.5	34.4	188.0	40.4	0.05	1.03	2.1	2,877,956	31,615	352,856	3,876	UG

Statewide weight for at risk for each model

Athens Completion Index

At-Risk FTE times the two weights produces additional FTE that get added to the main At-Risk FTE

Total cost of FTE produced using statewide costs

Subsidy we will receive

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

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 – FY20, FY21 and FY22 are used for this FY24 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 12.3% 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 – CY20, 21 and 22

Degree Level	Subject/Discipline Level	Concatenated	degrees	Avg SCH	average_cost
3	Agriculture Technologies	Agriculture Technologies3	730	91.0	$ 59,853
3	Business Technologies	Business Technologies3	8,969	95.3	$ 36,214
3	Engineering Technologies	Engineering Technologies3	5,238	103.5	$ 60,019
3	Health Technologies	Health Technologies3	14,340	117.3	$ 70,291
3	Liberal Arts	Liberal Arts3	27,983	101.4	$ 46,380
3	Natural Science Technologies	Natural Science Technologies3	3,746	102.3	$ 48,077
3	Other	Other3	5,506	97.1	$ 44,599
3	Public Service Technologies	Public Service Technologies3	2,483	92.9	$ 35,164
5	Accounting	Accounting5	3,312	145.9	$ 68,470
5	Agriculture	Agriculture5	1,017	148.2	$ 103,879
5	Allied Health	Allied Health5	6,038	151.1	$ 96,556
5	Anthropology	Anthropology5	430	150.0	$ 75,236
5	Architecture	Architecture5	986	143.5	$ 102,431
5	Art	Art5	1,094	149.3	$ 75,609
5	Biology	Biology5	6,406	147.0	$ 96,828
5	Business Information and Data Processing Services	Business Information and Data Processing Services5	692	143.4	$ 70,472
5	Chemistry	Chemistry5	769	150.2	$ 100,442
5	Civil Engineering	Civil Engineering5	1,117	154.0	$ 114,110

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 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	110,915	83,044		75%	
case 01	30,664	21,270		69%	7.9%
case 02	3,975	2,117		53%	40.6%
case 03	11,119	5,848		53%	42.4%
case 04	7,937	4,022		51%	47.8%
case 05	20,929	12,877		62%	21.7%
case 06	2,549	1,309		51%	45.8%
case 07	7,558	3,729		49%	51.8%
case 08	6,477	3,055		47%	58.7%
case 09	24,659	13,901		56%	32.8%
case 10	696	403		58%	29.3%
case 11	588	193		33%	128.1%
case 12	2,252	950		42%	77.5%
case 13	1,173	439		37%	100.1%
case 14	3,965	2,079		52%	42.8%
case 15	1,308	585		45%	67.4%
case 16	878	506		58%	29.9%
case 17	1,777	570		32%	133.4%
case 18	3,344	1,410		42%	77.6%
case 19	90	33		37%	104.2%
case 20	614	345		56%	33.3%
case 21	415	167		40%	86.1%
case 22	361	105		29%	157.4%
case 23	6,578	2,539		39%	94.0%
case 24	1,886	619		33%	128.1%
case 25	9,806	4,236		43%	73.3%
case 26	373	143		38%	95.3%
case 27	2,642	756		29%	161.7%
case 28	2,390	653		27%	174.0%
case 29	1,251	628		50%	49.1%
case 30	89	41		46%	62.5%
case 31	542	202		37%	100.9%
Total	269,800	168,774		63%	19.7%

- 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 students 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 40.6 FTE are added to get 140.6 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…

Degree Index Tab

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 (75%) (then minus 1) to get a weight for a student in any one of the 31 cases.

OU At-Risk Degrees

	OHUN Student	OHUN Grad	OHUN grad rate	State /Rate	Added FTE
case 00	12742	9576	75.2%	74.9%	
case 01	3784	2553	67.5%	69.4%	300
case 02	480	295	61.5%	53.3%	195
case 03	3955	2513	63.5%	52.6%	1,675
case 04	547	356	65.1%	50.7%	261
case 05	2463	1549	62.9%	61.5%	534
case 06	260	138	53.1%	51.4%	119
case 07	1097	564	51.4%	49.3%	568
case 08	314	197	62.7%	47.2%	184
case 09	2936	1609	54.8%	56.4%	963
case 10	262	199	76.0%	57.9%	77
case 11	32	16	50.0%	32.8%	41
case 12	256	106	41.4%	42.2%	198
case 13	322	169	52.5%	37.4%	322
case 14	1380	908	65.8%	52.4%	591
case 15	73	43	58.9%	44.7%	49
case 16	141	78	55.3%	57.6%	42
case 17	49	26	53.1%	32.1%	65
case 18	344	127	36.9%	42.2%	267
case 19	23	13	56.5%	36.7%	24
case 20	264	178	67.4%	56.2%	88
case 21	72	50	69.4%	40.2%	62
case 22	13	3	23.1%	29.1%	20
case 23	285	154	54.0%	38.6%	268
case 24	129	72	55.8%	32.8%	165
case 25	1841	873	47.4%	43.2%	1,350
case 26	27	13	48.1%	38.3%	26
case 27	159	67	42.1%	28.6%	257
case 28	46	17	37.0%	27.3%	80
case 29	247	143	57.9%	50.2%	121
case 30	24	17	70.8%	46.1%	15
case 31	40	25	62.5%	37.3%	40
Total	34,607	22,647	65%	62.6%	8,970
			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 1.75 (Central) with an average of 1.34, 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 1.75 at Central with an average of 1.35 so we have a below average 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	43.5	3.9	0.35	0.0	66.00	43.54
5	Agriculture	0.8	0.2	0.00	0.0	0.00	0.79
5	Allied Health	164.2	29.5	1.16	0.2	204.33	164.24
5	Anthropology	16.0	1.5	0.04	0.0	20.00	16.05
5	Architecture	0.2	0.0	0.00	0.0	0.00	0.21
5	Art	30.0	3.0	0.20	0.0	36.00	30.04
5	Biology	238.9	27.9	1.87	0.1	274.67	238.89
5	Business Info	57.9	5.1	0.52	0.0	105.33	57.91
5	Chemistry	36.1	4.5	0.53	0.0	44.67	36.12
5	Civil Enginee	32.8	3.6	0.39	0.0	39.00	32.84
5	Communicat	272.5	37.6	2.64	0.2	341.67	272.47
5	Communicat	58.8	5.4	0.44	0.0	67.33	58.78
5	Computer Sc	72.4	10.0	0.55	0.1	91.00	72.36

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 66 accounting undergraduate degrees (3-year average) is actually 43.54 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.

You can see the concept of degree credits in the Architecture subject – we are getting partial SSI from a student that took credits with us but ended up getting an Architecture degree at another university. We are getting credit for delivering part of that degree.

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 66. So, we produced the equivalent of 43.54 full degrees when looking at the credits completed here. So, the value that ends up under the Resident

Degree Credits column is 43.54

OU Degree Subsidy

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

							7.9%	40.6%	42.4%		100.9%
Level	subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	3-Yr Avg At-Risk Degree Credits	case 01	case 02	case 03	...	case 31
5	Accounting	43.5	3.9	0.35	0.0	15.23	8.65	0.00	0.00		0.00
5	Agriculture	0.8	0.2	0.00	0.0	0.45	0.08	0.04	0.00		0.02
5	Allied Health	164.2	29.5	1.16	0.2	75.93	22.13	1.08	0.93		0.18
5	Anthropology	16.0	1.5	0.04	0.0	5.26	1.84	0.00	0.00		0.00
5	Architecture	0.2	0.0	0.00	0.0	0.00	0.00	0.00	0.00		0.00
5	Art	30.0	3.0	0.20	0.0	13.29	6.68	0.00	0.00		0.00
5	Biology	238.9	27.9	1.87	0.1	95.83	38.87	1.05	0.00		0.00
5	Business Info	57.9	5.1	0.52	0.0	17.34	6.63	0.51	0.00		0.00
5	Chemistry	36.1	4.5	0.53	0.0	16.88	7.42	0.00	0.00		0.00
5	Civil Enginee	32.8	3.6	0.39	0.0	15.42	8.86	0.33	0.00		0.00
5	Communicat	272.5	37.6	2.64	0.2	104.15	33.99	5.06	1.18		0.00
5	Communicat	58.8	5.4	0.44	0.0	19.87	9.77	0.59	0.19		0.00
5	Computer Sc	72.4	10.0	0.59	0.1	31.34	11.09	1.16	0.63		0.09

Then each case is multiplied by its weight (e.g. the in case01 times the weight of 7.9%) and the sum of all those weighted case credits is the total At-Risk Credits for that degree. So, the unweighted 15.23 At-Risk Degree Credits for Accounting becomes 3.9 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 cases. You can see that 9.43 degrees fall into case 1 and the reminder 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 we 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 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 (13.2% for OHIO). So, while there is some subsidy for awarding degrees to non-residents, it is only 6.6% % of the resident rate for us.

5.28 degree credits * 50% * 13.2% = 0.35

subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	non resident degree credits
Accounting	43.5	3.9	0.35	0.0	5.28
Agriculture	0.8	0.2	0.00	0.0	0.00
Allied Health	164.2	29.5	1.16	0.2	17.53
Anthropology	16.0	1.5	0.04	0.0	0.68
Architecture	0.2	0.0	0.00	0.0	0.00
Art	30.0	3.0	0.20	0.0	3.00
Biology	238.9	27.9	1.87	0.1	28.36
Business Info	57.9	5.1	0.52	0.0	7.82
Chemistry	36.1	4.5	0.53	0.0	7.98
Civil Enginee	32.8	3.6	0.39	0.0	5.95
Communicat	272.5	37.6	2.64	0.2	40.00
Communicat	58.8	5.4	0.44	0.0	6.63
Computer Sc	72.4	10.0	0.55	0.1	8.28

Institutional Non-Resident Rates

AKRON	26.4%
BOWLING GREEN	19.0%
CINCINNATI	24.5%
CLEVELAND STATE	22.6%
CENTRAL STATE	22.4%
KENT STATE	19.6%
MIAMI	8.0%
OHIO STATE	18.5%
OHIO UNIV	13.2%
SHAWNEE ST.	10.0%
TOLEDO	30.4%
WRIGHT ST.	11.4%
YOUNGSTOWN ST.	28.9%

- 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 13.2% institutional rate.
- In traditional Athens campus graduate programs all students on assistantship are considered resident even if they are not originally 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 13.2% so the non-resident credits are reduced by an additional 13.2%. So, when you combine both reductions, you end up with 6.6% so our 5.38 non-resident degree credits in accounting are reduce down to 0.35 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 13.2%. 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 add-on	Non-Resident Degree SSI	Non-Resident At-Risk Degree SSI add-on
Accounting	43.5	3.9	0.35	0.0	$ 68,470	$ 2,981,103	$ 264,209	$ 23,842.87	$ 761.08	$ 495,142.02	$ 43,883.37	$ 3,960.15	$ 126.41
Agriculture	0.8	0.2	0.00	0.0	$ 103,879	$ 81,842	$ 16,981	$ -	$ -	$ 13,593.49	$ 2,820.47	$ -	$ -
Allied Health	164.2	29.5	1.16	0.2	$ 96,556	$ 15,858,002	$ 2,844,808	$ 111,621.32	$ 16,348.01	$ 2,633,911.99	$ 472,504.30	$ 18,539.58	$ 2,715.30
Anthropology	16.0	1.5	0.04	0.0	$ 75,236	$ 1,207,182	$ 113,671	$ 3,374.15	$ -	$ 200,505.09	$ 18,880.06	$ 560.42	$ -
Architecture	0.2	0.0	0.00	0.0	$ 102,431	$ 21,105	$ -	$ -	$ -	$ 3,505.43	$ -	$ -	$ -
Art	30.0	3.0	0.20	0.0	$ 75,609	$ 2,271,324	$ 226,270	$ 14,938.35	$ 1,379.90	$ 377,252.22	$ 37,582.02	$ 2,481.16	$ 229.19
Biology	238.9	27.9	1.87	0.1	$ 96,828	$ 23,131,455	$ 2,699,530	$ 181,064.94	$ 10,811.56	$ 3,841,985.78	$ 448,374.56	$ 30,073.72	$ 1,795.73
Business Infc	57.9	5.1	0.52	0.0	$ 70,472	$ 4,080,703	$ 361,141	$ 36,336.78	$ 3,051.73	$ 677,778.53	$ 59,983.21	$ 6,035.31	$ 506.87
Chemistry	36.1	4.5	0.53	0.0	$ 100,442	$ 3,628,005	$ 450,149	$ 52,836.66	$ 2,891.41	$ 602,588.24	$ 74,766.87	$ 8,775.83	$ 480.24
Civil Enginee	32.8	3.6	0.39	0.0	$ 114,110	$ 3,747,467	$ 415,310	$ 44,757.39	$ 915.78	$ 622,430.19	$ 68,980.32	$ 7,433.91	$ 152.11
Communicat	272.5	37.6	2.64	0.2	$ 67,032	$ 18,264,456	$ 2,522,840	$ 176,815.59	$ 12,678.79	$ 3,033,608.55	$ 419,027.53	$ 29,367.93	$ 2,105.87
Communicat	58.8	5.4	0.44	0.0	$ 77,726	$ 4,568,917	$ 420,879	$ 33,966.99	$ 1,339.25	$ 758,867.76	$ 69,905.26	$ 5,641.70	$ 222.44
Computer Sc	72.4	10.0	0.55	0.1	$ 90,031	$ 6,514,462	$ 901,850	$ 49,131.45	$ 5,504.38	$ 1,082,010.24	$ 149,791.41	$ 8,160.42	$ 914.24

$4,851,880,909 Grand total cost for all degrees in the state

Appropriation = $805,866,186 so SSI funding is 16.6% of cost

So, multiply the four Degree Cost numbers by 16.6% to get the SSI funding

Resident Degree SSI	Resident Degree At-Risk SSI add-on	Non-Resident Degree SSI	Non-Resident At-Risk Degree SSI add-on
67,942,875	10,835,974	9,616,365	151,758

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 $4.8B. Compared to the appropriation of $805M, this means that subsidy will cover 16.6% 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 16.6% 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. 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 $151K.

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 Set Aside Allocation				
	Completed FTE	Degree Cost	Research	Total Doc Set Asic
AKRN	1,358,528	5,475,680	557,650	7,391,859
BGSU	1,466,095	4,061,255	340,504	5,867,854
CINC	9,144,839	12,299,986	12,255,719	33,700,544
CLEV	703,502	1,781,701	1,532,632	4,017,835
KENT	5,651,836	8,416,322	665,451	14,733,609
MIAM	1,330,564	3,255,540	481,829	5,067,933
OHSU	21,359,976	40,657,968	28,032,494	90,050,437
OHUN	3,850,357	6,353,929	968,712	11,172,998
TLDO	1,153,153	5,730,357	1,431,592	8,315,101
WSUN	1,082,466	3,193,112	822,708	5,098,286
YNGS	346,081	1,187,164	104,807	1,638,051
NECM	18,121	2,518,022	271,421	2,807,564
Total	47,465,518	94,931,037	47,465,518	189,862,073
Actual % used	25%	50%	25%	

- There is a fixed total ($189M) allocated to doctoral activity
- Divided into three components
  - Doctoral Set Aside (completions) – 25% - $47.5M
  - Degrees – 50% - $95M
  - Research Funding – 25% - $47.4M
  - 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 – $47.6 M
50% for doctoral degrees – $53M
25% for research funding – $47.4M

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 completions. But since this never happened, the completion component was kept.

Doctoral Set Aside

Inst	Doc 1	Doc 2	Doc Total	Doc 1	Doc 2	Doc Total	Doc 1	Doc 2	Doc Total	3 year avg.	Percent Share of Doc Course Completions	Total Costs	Percent Share of Doc Course Completions Costs
AKRN	49.0	182.6	231.6	39.2	161.0	200.2	48.4	141.6	190.0	207.3	2.8%	31,834,547	2.9%
BGSU	146.4	87.3	233.7	146.2	84.0	230.1	144.6	85.5	230.2	231.3	3.1%	34,355,167	3.1%
CINC	314.1	1,071.8	1,386.0	315.6	1,113.0	1,428.6	307.8	1,064.7	1,372.5	1,395.7	19.0%	214,292,007	19.3%
CLEV	48.5	61.2	109.7	50.9	63.4	114.3	44.3	59.5	103.8	109.3	1.5%	16,485,246	1.5%
KENT	567.4	370.6	938.0	520.3	372.9	893.2	500.9	335.5	836.4	889.2	12.1%	132,440,093	11.9%
MIAM	132.4	54.5	186.9	146.1	79.9	226.0	137.1	81.3	218.4	210.4	2.9%	31,179,252	2.8%
NECM	-	2.4	2.4	-	3.8	3.8	-	2.0	2.0	2.7	0.0%	424,636	0.0%
OHSU	1,144.8	2,085.5	3,230.3	1,170.7	2,102.1	3,272.7	1,270.4	2,116.9	3,387.4	3,296.8	44.9%	500,530,659	45.0%
OHUN	293.2	275.2	568.4	318.9	297.5	616.4	309.5	310.2	619.8	601.5	8.2%	90,225,830	8.1%
TLDO	90.3	149.5	239.8	64.1	93.8	157.9	48.5	88.5	137.0	178.2	2.4%	27,021,958	2.4%
WSUN	99.4	72.9	172.2	121.7	56.1	177.8	116.7	46.8	163.5	171.2	2.3%	25,365,553	2.3%
YNGS	18.7	7.5	26.2	12.9	31.7	44.7	35.6	54.5	90.1	53.7	0.7%	8,109,757	0.7%
	2,904.1	4,421.1	7,325.1	2,906.6	4,459.2	7,365.8	2,963.9	4,387.1	7,351.0	7,347.3	100.0%	1,112,264,706	100.0%

- Completed FTE 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 601.5 FTE which is 8.2% 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 8.1% 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 $47.5M covers 4.3% of the $1.11B in total cost
- The remaining 95.7% of the cost falls to the universities.

Model Costs	FY24
Doc 1	$47,980
Doc 2	$52,103

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 you do a 3-year average of credits, we have 601.5 of a total across all the universities of 7,347.3 or 8.2%

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 $1.1B. The total appropriation of $47.5M is basically 4.3% of the total cost that is covered by subsidy.

We have 8.1% of total costs. This percentage is applied to the total appropriation of $47.5M to get a subsidy of $3.8M.

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

Doctoral Degree Earnings

Level	subject	Resident Degree Credits	Resident Degree At-Risk Credits	Non-Resident Degree Credits	Non-Resident At-Risk Degree Credits	Degree Cost	Resident Degree Costs
17	Arts & Huma	24.3	0.0	0.00	0.0	$ 223,805	$ 5,445,924
17	Education	33.0	0.0	0.00	0.0	$ 202,436	$ 6,680,372
17	Engineering	22.3	0.0	0.00	0.0	$ 242,152	$ 5,408,058
17	Health	5.7	0.0	0.00	0.0	$ 217,626	$ 1,233,212
17	Natural Scie	29.7	0.0	0.00	0.0	$ 263,547	$ 7,818,551
17	Social & Beh	10.3	0.0	0.00	0.0	$ 209,511	$ 2,164,944
17	Unclassified	1.7	0.0	0.00	0.0	$ 212,408	$ 354,013
							$ 29,105,074

Subject Mappings

Arts & Humanities
English
Communication Studies
Journalism
Media Arts & Studies
Comparative Arts
Hearing/Speech
Natural Science
Biolological Sciences
Chemistrry
Math
Physics
Blant Biology
Health
Comm Studies
Social Science
History
Psychology
Unclassified
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

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Inst	Cost of PhD Degrees (degrees * cost)	Shares of Phd Degree Cost
AKRN	$25,082,130	5.77%
BGSU	$18,603,153	4.28%
CINC	$56,341,830	12.96%
CLEV	$8,161,336	1.88%
KENT	$38,552,157	8.87%
MIAM	$14,912,460	3.43%
OHSU	$186,239,583	42.83%
OHUN	$29,105,074	6.69%
TLDO	$26,248,712	6.04%
WSUN	$14,626,503	3.36%
YNGS	$5,437,972	1.25%
NECM	$11,534,158	2.65%
	$434,845,069	100.00%

- 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 $95M available.
- The $95M works out to be about 22% of the total costs of $435M.

Doc Set Aside Tab

For the 50% ($95M) 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 $435M. Against the $95M appropriated that means that subsidy covers 21.8% of the cost.

For us, our $29M is 6.69% of the total so we get that percentage of the $93M or $6.35M

Doctoral Research Earnings

NSF Survey of R&D Expenditures at Ohio's Universities and Colleges

Academic Institution	Federally Financed Academic R&D Expend-itures	State/Local Govt Financed Academic R&D Expend-itures	Industry Financed Academic R&D Expend-itures	Institutionally Financed Academic R&D Expend-itures	Other Academic R&D Expend-itures	Institution Total	Sum of Federal, Industry & Other	Portion of Federal Funds, Source =HHS	Eligible R&D Expend-itures for Doctoral Set-Aside
Bowling Green State Univ, All Campuses	$ 7,263	$ 1,333	$ 838	$ 9,178	$ 7	$ 18,619	$ 8,108	$ 1,661	$ 7,278
Central State University	$ 4,165	$ 2,866	$ -	$ 1,720	$ -	$ 8,751	$ 4,165	$ -	$ 4,165
Cleveland State University	$ 47,402	$ 1,458	$ 6,058	$ 16,391	$ 142	$ 71,451	$ 53,602	$ 41,691	$ 32,757
Kent State University, All Campuses	$ 15,179	$ 1,379	$ 2,273	$ 31,409	$ 168	$ 50,408	$ 17,620	$ 6,795	$ 14,223
Miami University, All Campuses	$ 9,412	$ 1,610	$ 1,757	$ 12,023	$ 336	$ 25,138	$ 11,505	$ 2,414	$ 10,298
Northeastern Ohio Universities College of Med	$ 9,999	$ 14	$ 658	$ 3,182	$ -	$ 13,853	$ 10,657	$ 9,712	$ 5,801
Ohio State University, All Campuses	$ 559,797	$ 45,862	$ 179,936	$ 425,597	$ 24,919	$ 1,236,111	$ 764,652	$ 331,043	$ 599,131
Ohio University, All Campuses	$ 19,164	$ 883	$ 4,473	$ 24,765	$ 479	$ 49,764	$ 24,116	$ 6,824	$ 20,704
University of Akron, All Campuses	$ 9,024	$ 442	$ 2,746	$ 4,217	$ 911	$ 17,340	$ 12,681	$ 1,525	$ 11,919
University of Cincinnati, All Campuses	$ 309,097	$ 7,234	$ 78,044	$ 145,772	$ 11,679	$ 551,826	$ 398,820	$ 273,764	$ 261,938
University of Toledo	$ 32,601	$ 884	$ 5,310	$ 14,308	$ 66	$ 53,169	$ 37,977	$ 24,760	$ 30,597
Wright State University, All Campuses	$ 19,617	$ 584	$ 997	$ 4,999	$ 62	$ 26,259	$ 20,676	$ 6,185	$ 17,584
Youngstown State University	$ 2,198	$ 206	$ 93	$ 278	$ -	$ 2,775	$ 2,297	$ 102	$ 2,240
Total	$ 1,044,918	$ 64,755	$ 283,183	$ 693,839	$ 38,769	$ 2,125,464	$ 1,366,870	$ 696,476	$ 1,018,632

Inst	FY 2021 R&D Expenditures - Federal, Industry & Other	% of Unadjusted Research Expend-itures	Eligible Research Expenditures, weighting HHS funding = 50%	Shares of Adjusted Research Expend-itures
AKRN	12,681,000	0.9%	11,918,500	1.2%
BGSU	8,108,000	0.6%	7,277,500	0.7%
CINC	398,820,000	29.3%	261,938,000	25.8%
CLEV	53,602,000	3.9%	32,756,500	3.2%
KENT	17,620,000	1.3%	14,222,500	1.4%
MIAM	11,505,000	0.8%	10,298,000	1.0%
OHSU	764,652,000	56.1%	599,130,500	59.1%
OHUN	24,116,000	1.8%	20,704,000	2.0%
TLDO	37,977,000	2.8%	30,597,000	3.0%
WSUN	20,676,000	1.5%	17,583,500	1.7%
YNGS	2,291,000	0.2%	2,240,000	0.2%
NECM	10,657,000	0.8%	5,801,000	0.6%
	1,362,705,000	100.0%	1,014,467,000	100.0%

From NCES: https://ncsesdata.nsf.gov/ids/herd

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 $47.5M appropriated for this component. We account for 2% of the total expenditures so our allocation is 2% of the $47.5M or $968,712.

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 2021). Expenditures for NIH are discounted 50%.

We have $20.7M in eligible expenditures compared to a state total of $1B or 2%. So, we get 2% of the total appropriation of $47.5M which is $969K.

Doctoral Subsidy Earnings

IUC Doctoral Set Aside Allocation				
	Completed FTE	Degree Cost	Research	Total Doc Set Asi
AKRN	1,358,528	5,475,680	557,650	7,391,859
BGSU	1,466,095	4,061,255	340,504	5,867,854
CINC	9,144,839	12,299,986	12,255,719	33,700,544
CLEV	703,502	1,781,701	1,532,632	4,017,835
KENT	5,651,836	8,416,322	665,451	14,733,609
MIAM	1,330,564	3,255,540	481,829	5,067,933
OHSU	21,359,976	40,657,968	28,032,494	90,050,437
OHUN	3,850,357	6,353,929	968,712	11,172,998
TLDO	1,153,153	5,730,357	1,431,592	8,315,101
WSUN	1,082,466	3,193,112	822,708	5,098,286
YNGS	346,081	1,187,164	104,807	1,638,051
NECM	18,121	2,518,022	271,421	2,807,564
Total	47,465,518	94,931,037	47,465,518	189,862,073
Actual % used	25%	50%	25%	

- Each university gets a proportion share of the each of the three appropriation pools.
- For Completion FTE we get 8.11% of the state pool of $47.5M = $3,850,357.
- For Degree Cost we get 6.69% of the $95M allocated to that component = $6,353,929.
- For Research we get 2% of the $47.5M allocated to that component =$968,712.
- So, our total doctoral funding is $11,172,998 or 5.9% of the $189,862,073.

Doc Set Aside Tab

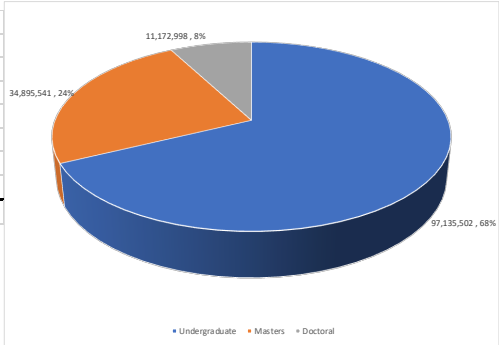
Putting it all together, we get

8.11% of the completion pool – $3.8M
6.69% of the degree pool – $6.4M
2% of the research funding pool – $969K

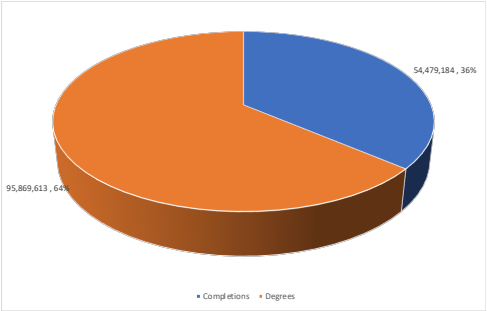
Our total of $11M is 5.9% of the total $189.8M appropriation

Summary of Subsidy Earnings

FTE Conpletions	49,770,699
At Risk Completions	858,128
Resident Degree Credits	67,942,875
Non-Resident Degree Credits	10,835,974
Resident Degree Credits At-Risk	9,616,365
Non-Resident Degree Credits At-Risk	151,758
Doctoral Set Aside	11,172,998
Medical	22,949,730
	173,298,527



- 68% of our Subsidy results from our Undergraduate activity with 24% from our Masters programs and 8% from our doctoral programs.
- Across all three levels, 64% of our subsidy results from degree completion and 36% from course completions.
- Overall, including Medical funding we receive $173.3M of the total $1.61B allocated – 10.8%.



- *Includes Doctoral completion and degree components*

Summary Tab

To summarize, here are all the sources of subsidy and the amounts.

If you group these into level, we get $97M (68%) of our funding from our undergraduate programs, $35M (24%) from our masters programs and $11M (8%) from our doctoral programs.

If you group these into subsidy from completions vs degrees, we get $96M (64%) from degrees and $54M (36%) from completions once you add the doctoral components in.