C-BEN
Employer Engagement ROI Estimator User Guide

COMPETENCY-BASED
EDUCATION NETWORK

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Access the ROI Estimator at
cbenetwork.org/resources

COMPETENCY-BASED EDUCATION NETWORK

Overview

The Return on Investment (ROI) Estimator was designed to help calculate and predict the ROI and break-even point for CBE programs and potential new workforce partnership programs.

This model allows for baseline (existing) operating revenue and costs to be identified separately from the revenue and costs which would be associated with a potential new workforce partnership program that might be considered. This document includes an overview of the data needed to make these calculations, an explanation of the calculations being made to estimate the ROI and break-even point, and case examples of the questions this model answers.

As you prepare to use this estimator, it is important to consider the sources of information that you may need to reference for the necessary input data. A significant portion of data may come from your Academic Affairs office and your Budgeting/ Finance/ Business Services office. It may be useful for you to schedule an appointment with representatives from those respective offices to have a conversation about the project that you are preparing to undertake. Help them to understand the scope of this data request and its purpose. It may be useful for you to open this model spreadsheet to walk them through it to see what type of data is being requested and how it would be used. Some may wish to enter this data directly rather than providing raw exports of this data for you. Those are all important conversations to have to help them feel comfortable with the use of this data.

We would like to thank and acknowledge the great work of Carlos Rivers, Shonda Gibson, Erica Contreras, Tina Livingston and Paula Hanson in their published case study entitled, "Competency-based education: An evolution higher education business model" upon which the foundation of this ROI estimator is based.

(Available at: https://doi.org/10.1002/cbe2.1179)

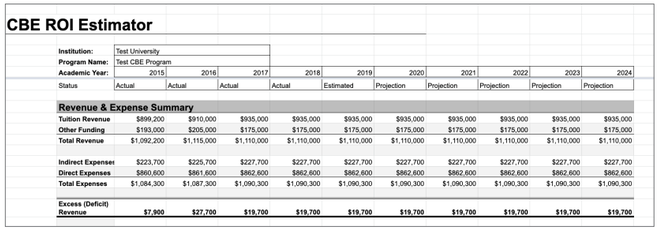
Structure

The ROI model is broken into two primary segments. The first segment focuses on baseline (existing) operating revenue and costs for existing programs and operations. The second segment focuses on program specific information that builds on the baseline data.

Operating Input ▾ | Operating Calculations ▾ | Operating Charts ▾

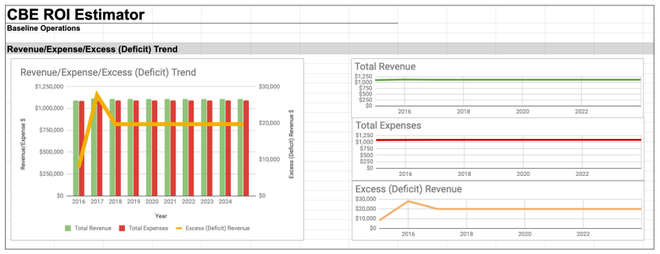
As you use this model, you can determine the scope of this information. The scope could be the entire operating revenue and costs for your entire institution or, this could be the operating costs of just existing College, Department or selected Program. You determine what the scope of your assumptions are as you select and prepare the data to enter into the model. A tab has been provided in the spreadsheet model for you to document your assumptions.

Within each segment of the model, there are three tabs. The first, yellow, tab is the input tab. This is where the primary data input should be done. All of the light yellow cells are data entry cells where you enter your institution and/or program specific data. (More discussion about what this data is and where to obtain it is provided later in this document.)



CBE ROI Estimator

Institution:	Test University									
Program Name:	Test CBE Program									
Academic Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Status	Actual	Actual	Actual	Actual	Estimated	Projection	Projection	Projection	Projection	Projection
Revenue & Expense Summary										
Tuition Revenue	$899,200	$910,000	$935,000	$935,000	$935,000	$935,000	$935,000	$935,000	$935,000	$935,000
Other Funding	$193,000	$205,000	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000
Total Revenue	$1,092,200	$1,115,000	$1,110,000	$1,110,000	$1,110,000	$1,110,000	$1,110,000	$1,110,000	$1,110,000	$1,110,000
Indirect Expense	$223,700	$225,700	$227,700	$227,700	$227,700	$227,700	$227,700	$227,700	$227,700	$227,700
Direct Expenses	$860,600	$861,600	$862,600	$862,600	$862,600	$862,600	$862,600	$862,600	$862,600	$862,600
Total Expenses	$1,084,300	$1,087,300	$1,090,300	$1,090,300	$1,090,300	$1,090,300	$1,090,300	$1,090,300	$1,090,300	$1,090,300
Excess (Deficit) Revenue	**$7,900**	**$27,700**	**$19,700**	**$19,700**	**$19,700**	**$19,700**	**$19,700**	**$19,700**	**$19,700**	**$19,700**



The second, green, tab is the calculations tab. This tab displays the calculations based on the data that you provided in the input tab. This tab starts with a basic Profit & Loss (P&L) at the top and then works down through FTSE (full time student equivalent) calculations, revenue information, and then direct and indirect cost information.

The third, blue, tab is the chart or visualization tab. This tab displays charts based on the data provided in the input tab and the calculations displayed on the calculations tab. This tab is intended to help you interpret the data and calculations, and provide visualizations of the data to identify trends and comparisons that might be more difficult to identify when just viewing the numbers.

This series of tabs is then repeated for the Program specific information in the second segment. In the Program tabs, these data are added on the baseline operation data provided in the first segment tabs. The colors and the overall explanations for the tabs are the same. The second segment differs from the first segment by including costs of the new program (which will be explained in more detail in the costs section of this document).

Operating Input Tab (yellow)

This tab provides a framework for entering operations information for up to 10 years. All of the light yellow colored cells on this tab are for data entry.

Academic Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Status	Actual	Actual	Actual	Actual	Estimated	Projection	Projection	Projection	Projection	Projection

At the top of the sheet, enter the name of your institution and the name of the College, Department or Program if this data represents a subset of your institution. Enter the Academic Year in cell C8 and the remaining years will automatically populate. However, if you want to enter a text based value (like FY2015 or AY15-16) in those fields, you can override the formulas and enter your own values. Row 9 allows you to enter a status indicator for each year such as actual, estimated, projected, forecast, etc.

You are not required to use all 10 years of this model. This model has been built to provide 10 years of total data if you have historical data that you would like to compare with estimated, forecasted or projected data going into the future. However, you should not feel obligated to provide data for all 10 years. You can complete as few or as many years as you would like, based on your specific needs.

Best Practice Tip: As you prepare this spreadsheet, keep track of your scope considerations and decisions on the Assumptions tab for reference later.

Semester Credit Hour Production

This represents the total semester credit hours produced at your institution (or subset thereof) by level of instruction, undergraduate and graduate. Your Academic Affairs office may be able to help provide this information.

Total Semester Credit Hour Production			
Level of Instruction	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production
Undergrad	7,737	7,900	8,300
Graduate	580	600	620

Semester Credit Hous per FTSE

In the context of this document and the ROI spreadsheet model, FTSE is used to represent "full-time student equivalents". This value is split by the level of instruction and identifies the number of credit hours per semester that your institution uses to calculate a full-time student equivalent.

Semester Credit Hours per FTSE			
Level of Instruction	Semester Credit Hours per FTSE	Semester Credit Hours per FTSE	Semester Credit Hours per FTSE
Undergrad	15	15	15
Graduate	12	12	12

Revenue

This represents the total revenue generated from tuition for the academic year, split according to the level of instruction. The Other Funding line in this section allows you to separate grants and other funding sources from tuition revenue. The listed tuition rate values are for comparison only. This would be the annual tuition amount for a full-time student equivalent at each level of instruction. The tuition rate will be referenced on the calculations tab in comparison with a calculated effective tuition rate value.

Revenue			
Level of Instruction	Tuition Revenue	Tuition Revenue	Tuition Revenue
Undergrad	$836,600	$845,000	$860,000
Graduate	$62,600	$65,000	$75,000
Listed Tuition Rate			
Undergrad	$1,200	$1,200	$1,200
Graduate	$1,200	$1,200	$1,200
Other Funding (e.g. Grants, etc.)	$193,000	$205,000	$175,000

Indirect Expenses

The indirect expenses section allows you to enter annual expense amounts for various categories of operational expenses which are not directly related to instruction. Potential categories are suggested, but the titles of these categories can be changed to allow you to include those that are most relevant for your program.

You might also wish to rename the existing categories to incorporate campus-specific terminology for that type of expense. Changes made to these labels will auto populate on the other tabs and the category labels on the charts. The "Other" category can either be relabeled or used as is.

Indirect Expenses			
Category			
Curriculum Development	$1,000	$2,000	$3,000
Overhead	$21,870	$21,870	$21,870
Service Agreement	$94,041	$94,041	$94,041
Sr. Management	$56,862	$56,862	$56,862
Support Services	$45,927	$45,927	$45,927
Other	$4,000	$5,000	$6,000

Best Practice Tip: Document the specific types of expenses which are included in the Service Agreement, Support Services and Other categories on the Assumptions tab.

Direct Expenses

The direct expenses section similarly allows you to enter the annual expense amounts for various direct expense categories. These are expenses which are directly related to the delivery of instruction.

Some suggested category titles are provided but can be edited or changed to suit your specific needs. Changes made to these labels will auto populate on the other tabs and the category labels on the charts.

Direct Expenses			
Category			
Full-time Faculty	$314,683	$314,683	$314,683
Adjunct Faculty	$175,289	$175,289	$175,289
Service Agreement	$197,708	$197,708	$197,708
Support Staff	$171,920	$171,920	$171,920
Other	$1,000	$2,000	$3,000

Operating Calculations Tab (green)

The framework titles for this tab (Institution name, Program name, Academic Years and Statuses) all come from the Operating Input tab.

If anything needs to be changed, the change should be made on the Input tab. A Year over Year (YOY) trend value and percentage change value is provided for each section.

On this tab, the alternating grey shaded lines are values which have been restated directly from the Operating Input tab. The alternating orange shaded lines are calculations on those numbers (metrics and trend running rates).

Revenue and Expense Summary

This section displays a very basic revenue and expense summary to compare the total revenue with the total expenses as provided on the Input tab. The difference is displayed as Excess (Deficit) Revenue. For this section, a Year over Year increase (or decrease) amount and percentage has been calculated to show a running trend from one academic year to the next.

The comparative ratios below that display the total indirect and total direct expenses as a percentage of total revenue as well as the total expense as a percentage of revenue. Finally the excess (deficit) revenue percentage of revenue is calculated. These are basic financial metrics which are commonly used for benchmarking performance across industries and between representative institutions.

Revenue & Expense Summary				
Tuition Revenue	$899,200	$910,000	$935,000	$935,000
Other Funding	$193,000	$205,000	$175,000	$175,000
Total Revenue	$1,092,200	$1,115,000	$1,110,000	$1,110,000
Indirect Expenses	$223,700	$225,700	$227,700	$227,700
Direct Expenses	$860,600	$861,600	$862,600	$862,600
Total Expenses	$1,084,300	$1,087,300	$1,090,300	$1,090,300
Excess (Deficit) Revenue	$7,900	$27,700	$19,700	$19,700
YOY Increase (Decrease)	n/a	$19,800	-$8,000	$0
YOY % Increase (Decrease)	n/a	250.63%	-28.88%	0.00%
Indirect Expenses % Revenue	20.48%	20.24%	20.51%	20.51%
Direct Expenses % Revenue	78.80%	77.27%	77.71%	77.71%
Total Expenses % Revenue	99.28%	97.52%	98.23%	98.23%
YOY Increase (Decrease)	n/a	-1.52%	0.44%	0.00%

Estimated Revenue per FTSE

As a financial metric, this also provides a measure of financial performance showing the amount of revenue (on average) that can be attributed to each full-time equivalent. This number is calculated by taking the total amount of revenue and dividing it by the total FTSE.

Estimated Revenue per FTSE			
Revenue Per FTSE	$1,936	$1,934	$1,835
YOY Increase (Decrease)	n/a	-$3	-$99
YOY % Increase (Decrease)	n/a	-0.13%	-5.11%

Estimated FTSE Break-even

As an ROI metric, the break-even point is a key consideration. The break-even FTSE is the number of full-time equivalents that would be required, based on the revenue per FTSE to cover the total expenses.

Estimated FTSE Break-even			
Estimated FTSE Break-even	560	562	594
YOY Increase (Decrease)	n/a	2	32
YOY % Increase (Decrease)	n/a	0.41%	5.68%

Estimated Break-even Revenue

This is the total amount of revenue required to cover (or equal) the total expenses of operations. Any revenue above the break-even will generate an excess of revenue. Any amount of revenue below the break-even will generate a loss.

Estimated Break-even Revenue			
Estimated Break-even Revenue	$1,084,300	$1,087,300	$1,090,300
YOY Increase (Decrease)	n/a	$3,000	$3,000
YOY % Increase (Decrease)	n/a	0.28%	0.28%

Excess (Deficit) Revenue per FTSE

This is the amount of excess (deficit) revenue calculated on a FTSE basis. This also provides a benchmarking measure across institutions to compare relative performance without revealing actual revenue, expenses or excess (deficit) revenue information about the organization.

Excess (Deficit) Revenue per FTSE				
Excess (Deficit) Revenue per FTSE	$14	$48	$33	$33
YOY Increase (Decrease)	n/a	$34	-$15	$0
YOY % Increase (Decrease)	n/a	243.01%	-32.21%	0.00%

Total Expense per FTSE

This is the expense for each expense type, direct, indirect and total, calculated on a FTSE basis. Like other FTSE based metrics, this is a useful benchmarking value for comparison with other institutions without disclosing actual revenue, expenses or excess (deficit) revenue information.

Total Expense per FTSE				
Category				
Direct Expenses per FTSE	$1,526	$1,494	$1,426	$1,426
Indirect Expenses per FTSE	$397	$391	$376	$376
Total Expenses	$1,922	$1,885	$1,802	$1,802

Total Semester Credit Hour Production

This is a restatement of the data which was provided on the Input tab related to credit hour production. This value is used in the calculation of FTSE.

Total Semester Credit Hour Production			
Level of Instruction			
Undergrad	7,737	7,900	8,300
Graduate	580	600	620
Total	8,317	8,500	8,920
YOY Increase (Decrease)	n/a	183	420
YOY % Increase (Decrease)	n/a	2.20%	4.94%

Semester Credit Hours per FTSE

This is a restatement of the data which was provided on the Input tab related to the credit hour load for a full-time student. This value is used in the calculation of FTSE.

Semester Credit Hours per FTSE			
Level of Instruction			
Undergrad	15	15	15
Graduate	12	12	12

Full-Time Student Equivalent (FTSE)

Full-time student equivalent is a calculation to determine the number of students, if enrolled at the full-time credit hour level, would provide the number of credit hours produced . The FTSE value is calculated as the total number of credit hours produced divided by the number of credit hours per full-time equivalent. This calculation is made for each individual level of instruction and then totalled.

Full-Time Student Equivalents (FTSE)			
Level of Instruction			
Undergrad	516	527	553
Graduate	48	50	52
Total FTSE	564	577	605
YOY Increase (Decrease)	n/a	13	28
YOY % Increase (Decrease)	n/a	2.22%	4.91%

Revenue

This section is a restatement of the data provided on the Input tab with the addition of some calculated fields for comparison. This section provides the calculated effective tuition rate as a comparison to the listed tuition rate. The effective tuition rate is calculated as the revenue for the instructional level divided by the FTSE for that instruction level.

Revenue				
Level of Instruction				
Undergrad				
Tuition Revenue	$836,600	$845,000	$860,000	$860,000
Listed Tuition Rate	$1,200	$1,200	$1,200	$1,200
Effective Tuition Rate	$1,622	$1,604	$1,554	$1,554
Percent of Revenue	76.6%	75.8%	77.5%	77.5%
YOY Increase (Decrease)	n/a	$8,400	$15,000	$0
YOY % Increase (Decrease)	n/a	1.00%	1.78%	0.00%
Graduate				
Tuition Revenue	$62,600	$65,000	$75,000	$75,000
Listed Tuition Rate	$1,200	$1,200	$1,200	$1,200
Effective Tuition Rate	$1,295	$1,300	$1,452	$1,452
Percent of Revenue	5.7%	5.8%	6.8%	6.8%
YOY Increase (Decrease)	n/a	$2,400	$10,000	$0
YOY % Increase (Decrease)	n/a	3.83%	15.38%	0.00%
Other Funding (i.e. Grants, etc.)	$193,000	$205,000	$175,000	$175,000
Funding Percent Revenue	17.7%	18.4%	15.8%	15.8%
YOY Increase (Decrease)	n/a	$12,000	-$30,000	$0
YOY % Increase (Decrease)	n/a	6.22%	-14.63%	0.00%
Total Revenue	$1,092,200	$1,115,000	$1,110,000	$1,110,000
YOY Increase (Decrease)	n/a	$22,800	-$5,000	$0
YOY % Increase (Decrease)	n/a	2.09%	-0.45%	0.00%

Indirect Expenses

This section is a restatement of the data provided on the Input tab. A percentage comparison of each category is listed below showing the relative percentage of total expense for each category of expenses per year.

Indirect Expenses				
Category				
Curriculum Development	$1,000	$2,000	$3,000	$3,000
Overhead	$21,870	$21,870	$21,870	$21,870
Service Agreement	$94,041	$94,041	$94,041	$94,041
Sr. Management	$56,862	$56,862	$56,862	$56,862
Support Services	$45,927	$45,927	$45,927	$45,927
Other	$4,000	$5,000	$6,000	$6,000
Total Indirect Expenses	$223,700	$225,700	$227,700	$227,700
Percent of Total Expenses	20.6%	20.8%	20.9%	20.9%
Percent of Revenue	20.5%	20.2%	20.5%	20.5%
YOY Increase (Decrease)	n/a	$2,000	$2,000	$0
YOY % Increase (Decrease)	n/a	0.89%	0.89%	0.00%
Percentage of Total Indirect Expenses				
Curriculum Development	0.4%	0.9%	1.3%	1.3%
Overhead	9.8%	9.7%	9.6%	9.6%
Service Agreement	42.0%	41.7%	41.3%	41.3%
Sr. Management	25.4%	25.2%	25.0%	25.0%
Support Services	20.5%	20.3%	20.2%	20.2%
Other	1.8%	2.2%	2.6%	2.6%

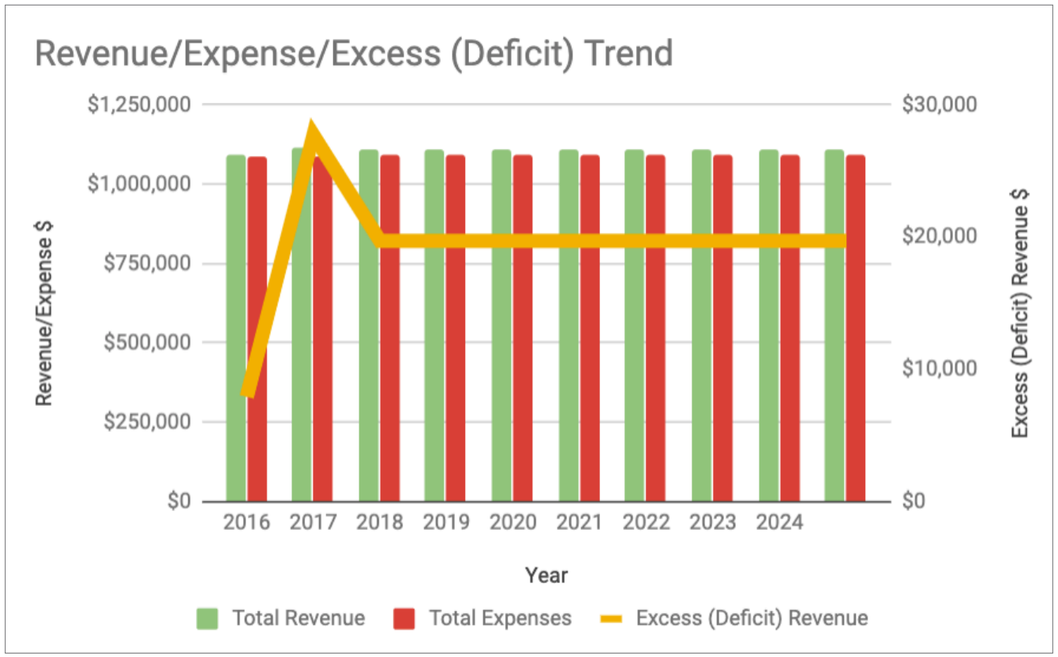
Direct Expenses

This section is a restatement of the data provided on the Input tab. A percentage comparison of each category is listed below showing the relative percentage of total expense for each category of expenses per year.

Direct Expenses				
Category				
Full-time Faculty	$314,683	$314,683	$314,683	$314,683
Adjunct Faculty	$175,289	$175,289	$175,289	$175,289
Service Agreement	$197,708	$197,708	$197,708	$197,708
Support Staff	$171,920	$171,920	$171,920	$171,920
Other	$1,000	$2,000	$3,000	$3,000
Total	$860,600	$861,600	$862,600	$862,600
Percent of Total Expenses	79.4%	79.2%	79.1%	79.1%
Percent of Revenue	78.8%	77.3%	77.7%	77.7%
YOY Increase (Decrease)	n/a	$1,000	$1,000	$0
YOY % Increase (Decrease)	n/a	0.12%	0.12%	0.00%
Percentage of Total Direct Expenses				
Full-time Faculty	36.6%	36.5%	36.5%	36.5%
Adjunct Faculty	20.4%	20.3%	20.3%	20.3%
Service Agreement	23.0%	22.9%	22.9%	22.9%
Support Staff	20.0%	20.0%	19.9%	19.9%
Other	0.1%	0.2%	0.3%	0.3%

Operating Charts Tab (blue)

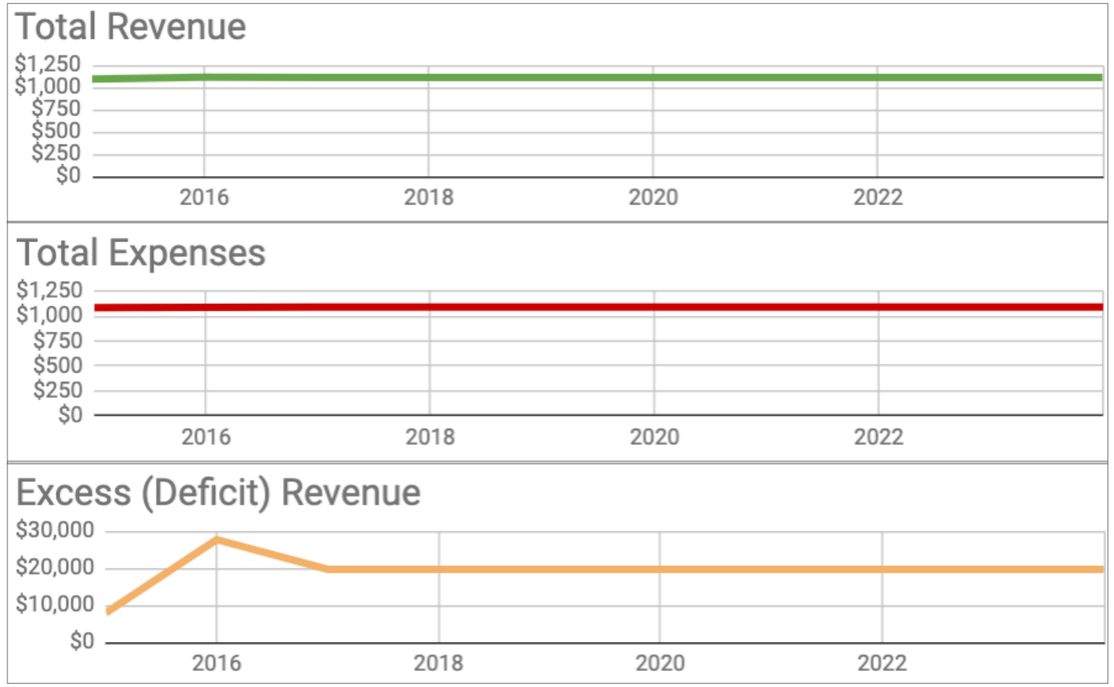
This tab includes visualizations of the data calculated on the Operating Calculations tab.



Revenue/Expense/Excess (Deficit) Trend

This chart shows the comparison of total revenue, total expenses and excess (deficit) revenue by year. The revenue is displayed as the green bar (first bar) for each year and the expense is displayed as the red bar (second bar) for each year. The excess (deficit) revenue is displayed as the orange line across the bars. The axis labels for the revenue and expenses are shown on the left side of the chart. The axis labels for the excess (deficit) revenue line are shown on the right side of the chart.

Each of these dimensions is also displayed in individual trendline charts beside the combined chart.



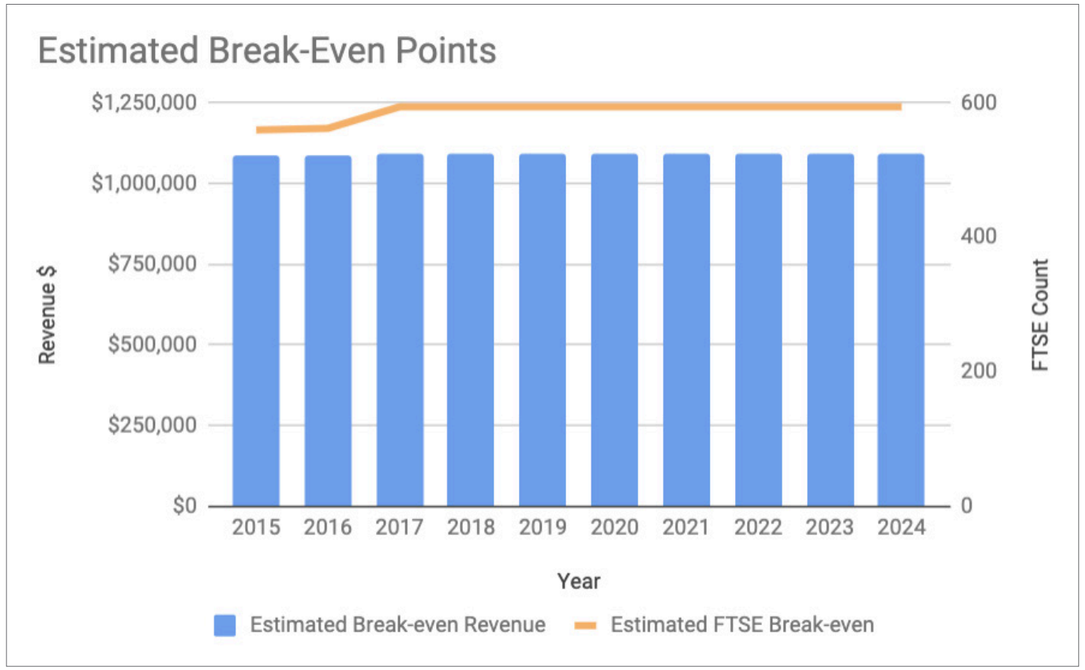
Questions:

This chart helps to answer questions like:

- What were the expenses and revenues in the past years and what are the projections?
- How does the excess (deficit) revenue compared to the expenses and revenues by year?
- What is the trend of my revenues (or expenses, or both)?
- What is the trend of my excess (deficit) revenue?
- What is my estimated excess (deficit) revenue trend ?
- What are my estimated revenues (or expenses, or both)?

Estimated Break Even Point

The Estimated Break Even Point chart shows the estimated total revenue amount and the estimate number of FTSE needed by year to break even. The blue bar (the column) represents the revenue value and the orange line represents the FTSE count.



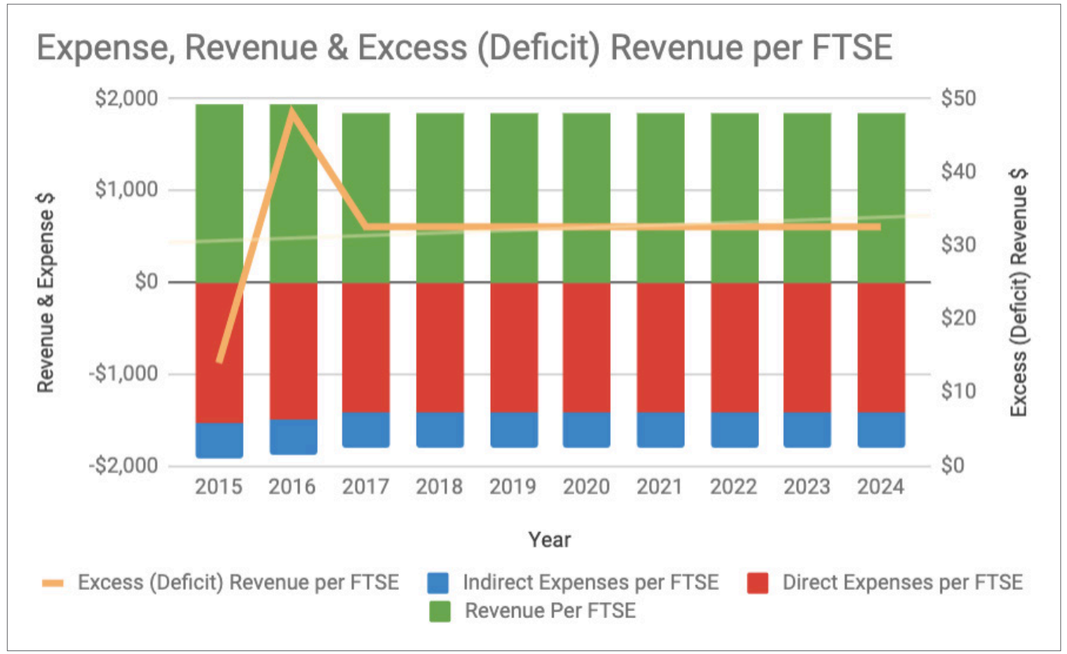
Questions:

This chart helps to answer questions like:

- What is my revenue break-even point for X year?
- What is the projection of my revenue break-even point for the next few years?
- How many FTSE do I need to break even for X year?
- What is the trend for required FTSE to break even over the next few years?

Expenses, Revenue and Excess (Deficit) Revenue per FTSE

The Expenses, Revenue & Excess (Deficit) Revenue per FTSE chart shows the break-down and trend of revenue, expenses and excess (deficit) revenue broken down on a per FTSE basis by year. The green segment of the column (the segment above the $0 axis line) represents the revenue portion, the red segment of the column (the first segment below the $0 axis line) represents the direct expenses and the blue segment of the column (the second segment below the $0 axis line) represents the indirect expenses. The orange line represents the excess (deficit) revenue amount per FTSE against the right axis values. The light orange line shows the overall trend of this excess (deficit) revenue value over the years displayed.



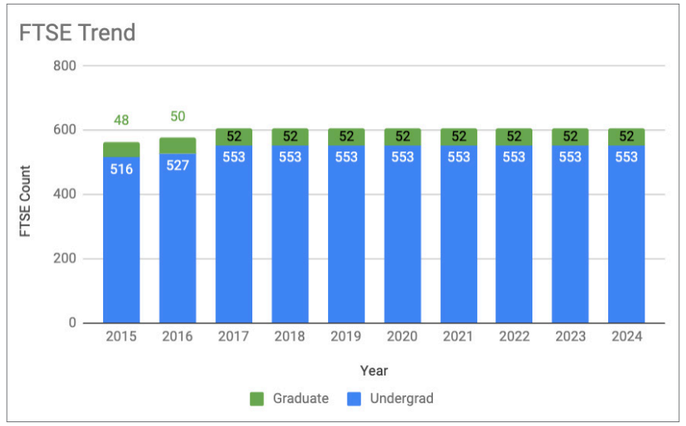
Questions:

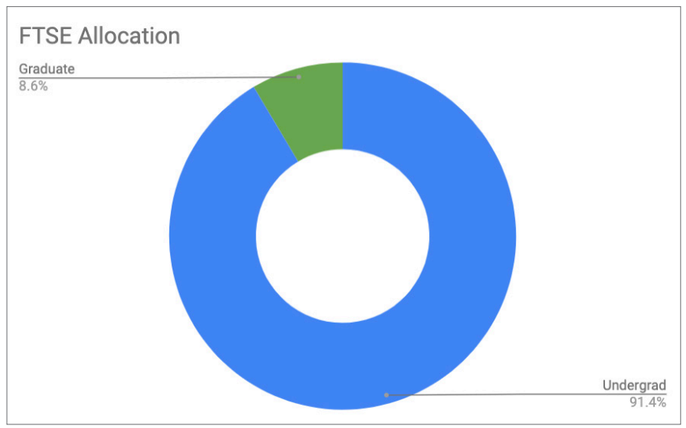
This chart helps to answer questions like:

- What is my revenue per FTSE?
- What are my expenses (direct and/or indirect) per FTSE?
- What is my level of excess (deficit) revenue per FTSE?
- What is my projected revenue, expenses and/or excess (deficit) revenue per FTST over the next few years?

FTSE Trend & Allocation

This chart shows the trend comparison of the FTSE by year for each level of instruction. The blue section (bottom section) of each bar displays the segment value for the count of undergraduate FTSEs and the green section (top section) displays the segment value for the count of graduate FTSEs.





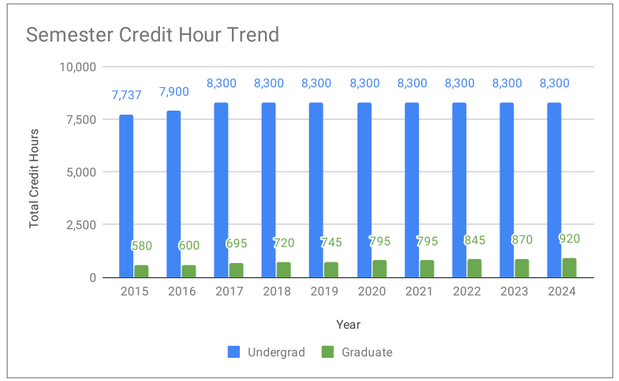
Questions:

This chart helps to answer questions like:

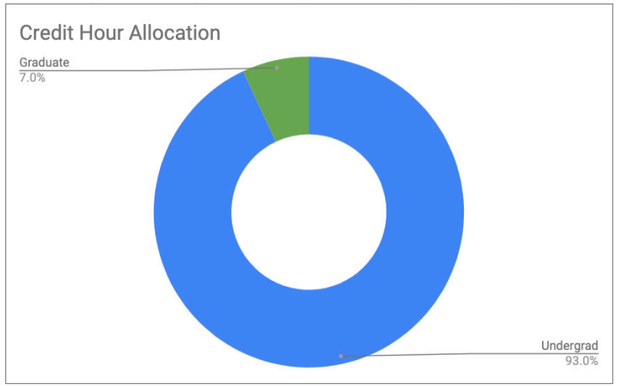
- What is the trend of my undergraduate FTSE count?
- What is the comparison of graduate to undergraduate/baccalaureate FTSE counts by year?
- What is the projection of undergraduate FTSEs?
- What is the projection of graduate FTSEs?

Semester Credit Hour Trend & Allocation

The Semester Credit Hour Trend chart shows the comparison of undergraduate and graduate credit hour production by year. The blue bar (the first bar for each year) show the level of undergraduate credit hour production. The green bar (the second bar for each year) shows the level of graduate credit hour production.



The Credit Hour Production Allocation chart shows the relative proportions of each category of credit hour production compared to the total. The labels for each segment of the circle identify the category name and the percentage value.



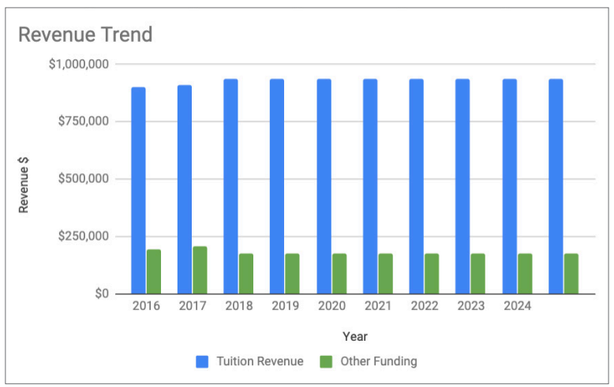
Questions:

This chart helps to answer questions like:

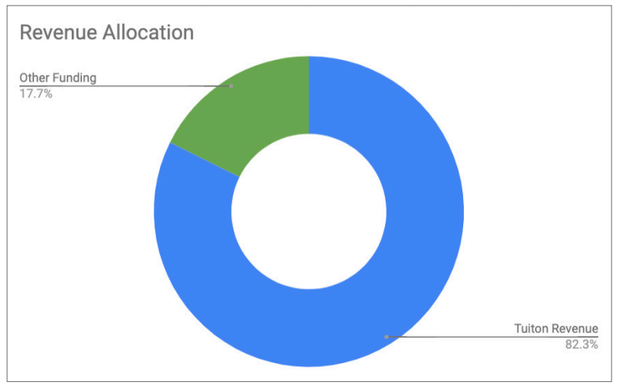
- How has my semester credit hour production increased or decreased? By level of instruction? For the organization as a whole?
- What is my semester credit hour production projection?
- What percentage of revenue was received from (X Level of Instruction) compared to (Y Level of Instruction)? Or compared to the whole?

Revenue Trend & Allocation

The Revenue Trend chart shows the comparison of the types of revenue by year. The blue bar (the first bar for each year) shows the total tuition revenue. The green bar (the second bar for each year) shows the other funding sources (such as grant revenue).



The Revenue Allocation chart shows the relative proportions of each revenue category compared to the total. The labels for each segment of the circle identify the category name and the percentage value.



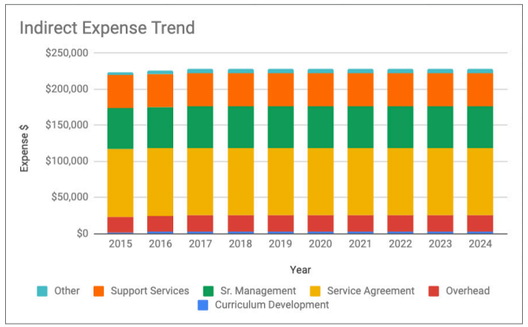
Questions:

This chart helps to answer questions like:

- How has my tuition revenue increased or decreased?
- What is my tuition revenue projection?
- How much of my total revenue is coming from sources other than direct tuition?
- What percentage of revenue was received from (X Category) compared to (Y Category)? Or compared to the whole?

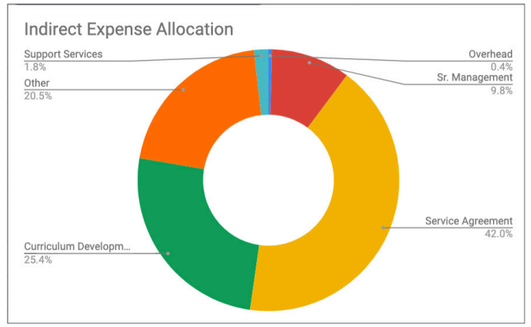
Indirect Expenses Trend & Allocation

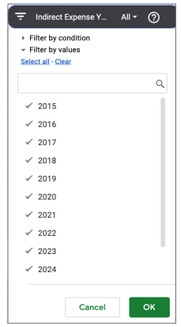
The Indirect Expense Trend chart shows the comparison of the various indirect expense categories year by year. Each of the categories is represented by a different color as depicted in the legend.



The Indirect Expenses Allocation chart shows the relative proportions of each expense category. The labels of each segment of the circle identify the category name and the percentage value.

The Indirect Expense Year slicer allows you to filter the allocation chart for one or multiple selected years. The default view is all years. To change the selected years, click the “All” drop-down menu and then check or uncheck the desired years. Click OK when complete to update the chart with the selected years. This type of slicer is available with all of the Allocation type charts.





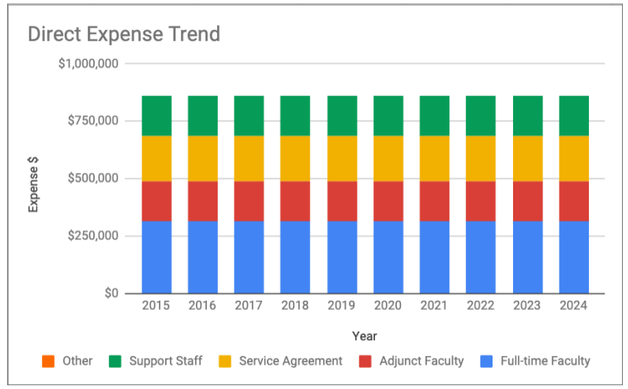
Questions:

This chart helps to answer questions like:

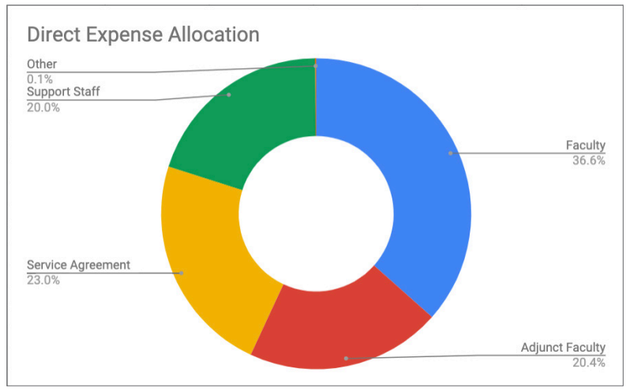
- What is the proportion of my total expenses allocated to a specific category?
- What is the trend of each expense category compared to the others from year to year?
- What are the projections of each expense category?
- What is the percentage spent on (X Category) compared to (Y Category)? Or compared to the whole?

Direct Expense Trend & Allocation

The Direct Expense Trend chart shows the comparison of the various direct expense categories year by year. Each of the categories is represented by a different color as depicted in the legend.



The Direct Expense Allocation chart shows the relative proportions of each expense category. The labels of each segment of the circle identify the category name and the percentage value.



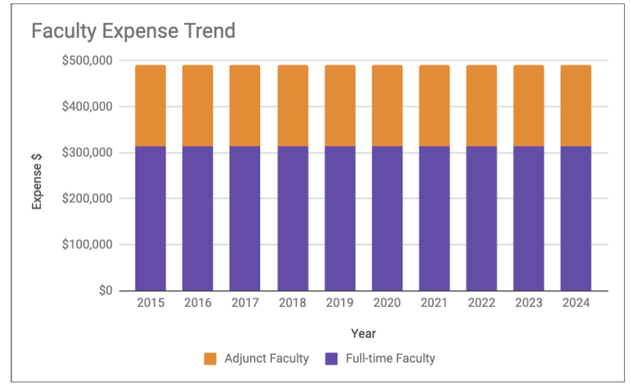
Questions:

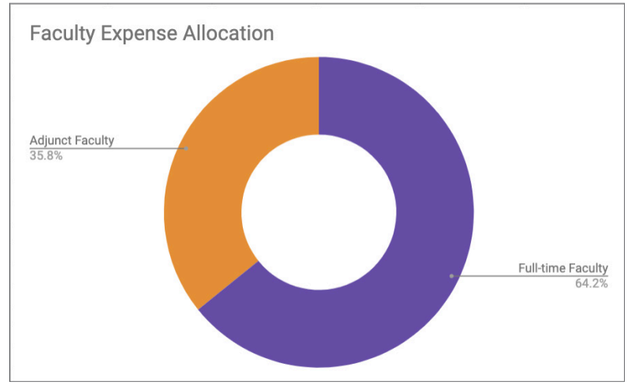
This chart helps to answer questions like:

- What is the proportion of my total expenses allocated to a specific category?
- What is the trend of each expense category compared to the others from year to year?
- What are the projections of each expense category?
- What is the percentage spent on (X Category) compared to (Y Category)? Or compared to the whole?

Faculty Expense Trend & Allocation

This chart shows the trend comparison of the expenses related to full-time and adjunct faculty by year. The purple section (bottom section) of each bar displays the segment value for the expense associated with full-time faculty and the orange section (top section) displays the segment value for the expense associated with adjunct faculty. The allocation chart shows the relative comparison for those two values by percentage of the whole. The labels and percentage values are displayed in the chart.





Questions:

This chart helps to answer questions like:

- What is the trend of my faculty expenses?
- How does my expense related to full-time faculty compared to my expense related to adjunct faculty?
- What is the comparison of full-time faculty to adjunct faculty by year?
- What is the projection of full-time faculty expenses?
- What is the projection of adjunct faculty percentage?

Program Input Tab (yellow)

The Program Input tab provides a place for you to enter startup and operating revenues and expenses related to a specific partnership program that you might be evaluating.

This is formatted in the same 10 year framework as the baseline operations input tab. All of the information entered on this tab is intended to be incremental to the baseline operations.

CBE ROI Data Input

Program Startup & Operating Information

Partner	Test Company, Inc.									
Program Name:	Company Inc Leadership Program									
Academic Year:	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**
Status	Actual	Actual	Actual	Actual	Estimated	Projection	Projection	Projection	Projection	Projection

Additional Semester Credit Hour Production

Level of Instruction	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production	Semester Credit Hours Production
Undergrad										
Graduate			75	100	125	175	175	225	250	300

Startup/Specific Expenses

Advisory council/ outreach	5000	5000	1000	1000	1000	1000	1000	1000	1000	1000
Course redesign of existing programs		5000	5000	2500						
Faculty for curriculum development	1000	5000	5000	2500						
Institutional policy modification (training, admissions, advising, financial aid, etc)		1000	1000							
Staff time: student facing and administrative training,		2500	2500	1000	1000					
Technology – instructional design		1500	1500	1000	1000	1000	1000			
Testing/ Piloting of academic component		5000	2500	2500	1500					
Authentication of external credentials (student learning)		2500	1000	1000	1000	1000	1000	1000	1000	1000
OTHER										
OTHER										

Startup/Specific Expenses

This section provides an area for you to enter an expected startup or specific expenses associated with the development and launch of this workforce partnership. You can edit or change the category labels to fit your specific needs related to these expenses. The labels provided are simply suggestions of some types of expenses which you might incur.

Revenue

This section provides an area for you to enter the expected revenue associated with this program, split by the level of instruction (if more than one level of instruction will be provided in this program). If only one level of instruction is being provided, enter the data for that level and leave the other blank. Also, if there will be additional sources of funding for this program, such as grants or other external funding, enter that information here. If there will be no other sources of funding, leave these cells blank.

Revenue

Level of Instruction	Tuition Revenue	Tuition Revenue	Tuition Revenue	Tuition Revenue
Undergrad				
Graduate			$100,000	$125,000
Other Funding (e.g. Grants, etc.)				

Additional Indirect Expenses

This section is the amount of indirect expenses which will be associated with the addition of this program. The category labels here are defaulted from the labels provided on the Operating Input tab as these categories are added together in the calculations and charts.

Additional Indirect Expenses

Category				
Curriculum Development	$1,000	$1,000	$1,500	$1,500
Overhead	$15,000	$15,000	$25,000	$50,000
Service Agreement			$1,500	$2,000
Sr. Management	$10,000	$15,000	$7,500	$5,000
Support Services	$1,000	$1,000	$1,000	$1,000
Other			$1,500	$1,500

Additional Direct Expenses

This section is the amount of direct expenses which will be associated with the addition of this program. The category labels here are defaulted from the labels provided on the Operating Input tab as these categories are added together in the calculations and charts.

Additional Direct Expenses

Category				
Full-time Faculty	7,500	7,500	20,000	20,000
Adjunt Faculty	2,500	2,500	5,000	15,000
Service Agreement	5,000	15,000	25,000	35,000
Support Staff	1,000	1,000	1,000	1,000
Other			1,500	1,500

Customization Multiplier

This is a multiplier designed to build in a "buffer" or added value into the expense factor for unexpected expenses. If your program being evaluated is very straightforward and not customized for your employer partner, then there might not be any need for a customization multiplier. However, if the program being evaluated is highly customized and tailored for the employer partner's specific needs, then there could be a desire to add a buffer here to accommodate the unexpected expenses associated with the increased complexity. This value should be entered on a 1.x basis - for example, if you wanted to add a 15% buffer, then enter a value of 1.15 for that year in this row. This is an optional row; if you do not wish to add a customization multiplier, simply leave this row blank.

An example of this customization multiplier could be something like creating a new, highly specialized and highly customized partnership education program in a new discipline area where you have not previously had a lot of experience. You might have SMEs in your faculty team to provide this education, however, feel a level of uncertainty about unknown factors which you might encounter during the creation and deployment of this program. As one method for providing a buffer for those unexpected or unknown expenses, you could choose to an an annual buffer amount, via a multiplier (percentage) value. In this example, perhaps you want to incorporate a 15% buffer for the first two years of the program and then decline that down to 10% and 5% over the following years.

Customization Multiplier (Complexity Level)

Multiplier			1.15	1.15

Academic Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Multiplier			1.15	1.15	1.10	1.10	1.05	1.05		

Program Calculations Tab (green)

The layout of this tab is similar to the Operating Calculations tab. The tab includes the baseline operating information as well as the additional program information from the Program Input tab.

CBE ROI Estimator - Additional Program Details

Institution:	Test University									
Program Name:	Company Inc Leadership Program			**Partner:**	Test Company, Inc.					
Academic Year:	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Status	Actual	Actual	Actual	Actual	Estimated	Projection	Projection	Projection	Projection	Projection
Revenue & Expense Summary										
Baseline Tuition Rev	$899,200	$1,115,000	$1,310,000	$1,360,000	$1,410,000	$1,410,000	$1,760,000	$1,860,000	$1,860,000	$1,910,000
Additional Tuition Re	$0	$0	$100,000	$125,000	$150,000	$150,000	$200,000	$250,000	$250,000	$275,000
Baseline Other Funding	$193,000	$205,000	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000	$175,000
Additional Other Funding							$250,000	$250,000	$250,000	$250,000
Total Revenue	$1,092,200	$1,115,000	$1,310,000	$1,360,000	$1,410,000	$1,410,000	$1,760,000	$1,860,000	$1,860,000	$1,910,000
Startup Expenses	$6,000	$27,500	$19,500	$11,500	$5,500	$3,000	$3,000	$2,000	$2,000	$2,000
Indirect Expenses	$250,700	$257,700	$265,700	$288,700	$287,200	$302,200	$302,200	$312,200	$312,200	$312,200
Direct Expenses	$876,600	$887,600	$915,100	$935,100	$955,100	$975,100	$975,100	$975,100	$988,600	$975,100
Complexity Mult	$0	$0	$180,045	$185,295	$124,780	$128,030	$64,015	$64,465	$0	$0
Total Expenses	$1,133,300	$1,172,800	$1,380,345	$1,420,595	$1,372,580	$1,408,330	$1,344,315	$1,353,765	$1,302,800	$1,289,300
Excess (Deficit) Revenue	**-$41,100**	**-$57,800**	**-$70,345**	**-$60,595**	**$37,420**	**$1,670**	**$415,685**	**$506,235**	**$557,200**	**$620,700**
Profit YOY Increase (Decrease)	n/a	-$16,700	-$12,545	$9,750	$98,015	-$35,750	$414,015	$90,550	$50,965	$63,500
Profit YOY % Increase (Decrease)	n/a	40.63%	21.70%	-13.86%	-161.75%	-95.54%	24791.32%	21.78%	10.07%	11.40%
Startup Expenses % Revenue	0.55%	2.47%	1.49%	0.85%	0.39%	0.21%	0.17%	0.11%	0.11%	0.10%
Indirect Expenses % Revenue	22.95%	23.11%	20.28%	21.23%	20.37%	21.43%	17.17%	16.78%	16.78%	16.35%
Direct Expenses % Revenue	80.26%	79.61%	69.85%	68.76%	67.74%	69.16%	55.40%	52.42%	53.15%	51.05%
Complexity Multiplier % Revenue	0.00%	0.00%	13.74%	13.62%	8.85%	9.08%	3.64%	3.47%	0.00%	0.00%
Total Expenses % Revenue	103.76%	105.18%	105.37%	104.46%	97.35%	99.88%	76.38%	72.78%	70.04%	67.50%
Excess % Revenue	-3.76%	-5.18%	-5.37%	-4.46%	2.65%	0.12%	23.62%	27.22%	29.96%	32.50%

On this tab, the alternating grey shaded lines are values which have been restated directly from the Operating Input tab. The alternating green shaded lines are the additional program values provided on the Program Input tab. The alternating orange shaded lines are calculations on those numbers (metrics and trend running rates).

The section descriptions here are the same as the Operating Calculations tab. Please refer to that section of this document for details regarding sections not listed here. The specific additional sections added on this tab are the following:

Startup/Specific Expenses

This section is a restatement of the data provided on the Program Input tab. A percentage comparison of each category is listed below showing the relative percentage of total startup expenses for each category of expenses per year.

Startup Expenses				
Category				
Advisory council/ outreach	$5,000	$5,000	$1,000	$1,000
Course redesign of existing programs		$5,000	$5,000	$2,500
Faculty for curriculum development	$1,000	$5,000	$5,000	$2,500
Institutional policy modification (training, admissions, advising, financial aid, etc)		$1,000	$1,000	
Staff time: student facing and administrative training,		$2,500	$2,500	$1,000
Technology -- instructional design		$1,500	$1,500	$1,000
Testing/ Piloting of academic component		$5,000	$2,500	$2,500
Authentication of external credentials (student learning)		$2,500	$1,000	$1,000
OTHER				
OTHER				
Total Startup Expenses	$6,000	$27,500	$19,500	$11,500
Percent of Total Expenses	0.5%	2.3%	1.4%	0.8%
Percent of Revenue	0.5%	2.5%	1.5%	0.8%
YOY Increase (Decrease)	n/a	$21,500	-$8,000	-$8,000
YOY % Increase (Decrease)	n/a	358.33%	-29.09%	-41.03%

Additional Indirect Expenses

This section is a restatement of the data provided on the Program Input tab. A percentage comparison of each category is listed below showing the relative percentage of total additional indirect expenses for each category of expenses per year.

Additional Indirect Expenses				
Category				
Curriculum Development	$1,000	$1,000	$1,500	$1,500
Overhead	$15,000	$15,000	$25,000	$50,000
Service Agreement			$1,500	$2,000
Sr. Management	$10,000	$15,000	$7,500	$5,000
Support Services	$1,000	$1,000	$1,000	$1,000
Other			$1,500	$1,500
Total Indirect Expenses	$27,000	$32,000	$38,000	$61,000
Percent of Total Expenses	3.1%	3.6%	4.2%	6.5%
Percent of Revenue	43.1%	49.2%	21.7%	30.5%
YOY Increase (Decrease)	n/a	$5,000	$6,000	$23,000
YOY % Increase (Decrease)	n/a	18.52%	18.75%	60.53%

Total Indirect Expenses

This section provides a summary of the baseline indirect expenses and the additional indirect expenses.

Total Indirect Expenses				
Category				
Overhead	$2,000	$3,000	$4,500	$4,500
Sr. Management	$36,870	$36,870	$46,870	$71,870
Service Agreement	$94,041	$94,041	$95,541	$96,041
Curriculum Development	$66,862	$71,862	$64,362	$61,862
Other	$46,927	$46,927	$46,927	$46,927
Support Services	$4,000	$5,000	$7,500	$7,500
Total Indirect Expenses	$250,700	$257,700	$265,700	$288,700
Percent of Total Expenses	22.1%	22.0%	19.2%	20.3%
Percent of Revenue	23.0%	23.1%	20.3%	21.2%
YOY Increase (Decrease)	n/a	$7,000	$8,000	$23,000
YOY % Increase (Decrease)	n/a	2.79%	3.10%	8.66%
Percentage of Total Indirect Expenses				
Overhead	0.8%	1.2%	1.7%	1.6%
Sr. Management	14.7%	14.3%	17.6%	24.9%
Service Agreement	37.5%	36.5%	36.0%	33.3%
Curriculum Development	26.7%	27.9%	24.2%	21.4%
Other	18.7%	18.2%	17.7%	16.3%
Support Services	1.6%	1.9%	2.8%	2.6%

Additional Direct Expenses

This section is a restatement of the data provided on the Program Input tab. A percentage comparison of each category is listed below showing the relative percentage of total additional direct expense for each category of expenses per year.

Additional Direct Expenses				
Category				
Full-time Faculty	$7,500	$7,500	$20,000	$20,000
Adjunt Faculty	$2,500	$2,500	$5,000	$15,000
Service Agreement	$5,000	$15,000	$25,000	$35,000
Support Staff	$1,000	$1,000	$1,000	$1,000
Service Agreement			$1,500	$1,500
Total Direct Expenses	$16,000	$26,000	$52,500	$72,500
Percent of Total Expenses	1.8%	2.9%	5.7%	7.8%
Percent of Revenue	1.5%	2.3%	4.0%	5.3%
YOY Increase (Decrease)	n/a	$10,000	$26,500	$20,000
YOY % Increase (Decrease)	n/a	62.50%	101.92%	38.10%

Total Direct Expenses

This section provides a summary of the baseline direct expenses and the additional direct expenses.

Total Direct Expenses				
Category				
Full-time Faculty	$322,183	$322,183	$334,683	$334,683
Adjunct Faculty	$177,789	$177,789	$180,289	$190,289
Service Agreement	$202,708	$212,708	$222,708	$232,708
Support Staff	$172,920	$172,920	$172,920	$172,920
Other	$1,000	$2,000	$4,500	$4,500
Total Direct Expenses	$876,600	$887,600	$915,100	$935,100
Percent of Total Expenses	77.3%	75.7%	66.3%	65.8%
Percent of Revenue	80.3%	79.6%	69.9%	68.8%
YOY Increase (Decrease)	n/a	$11,000	$27,500	$20,000
YOY % Increase (Decrease)	n/a	1.25%	3.10%	2.19%
Percentage of Total Direct Expenses				
Full-time Faculty	36.8%	36.3%	36.6%	35.8%
Adjunct Faculty	20.3%	20.0%	19.7%	20.3%
Service Agreement	23.1%	24.0%	24.3%	24.9%
Support Staff	19.7%	19.5%	18.9%	18.5%
Other	0.1%	0.2%	0.5%	0.5%

Expense Complexity Multiplier

If a complexity multiplier value was included in the Program Input tab, then this section restates that value as well as the associate expense value based on that multiplier.

Expense Complexity Multiplier				
Multiplier			1.15	1.15
Multiplier Value	$0	$0	$180,045	$185,295

Total Expenses

This section provides a total of all of the various expense sections represented on this tab including the expense multiplier value.

Total Expenses				
Total Expenses	$1,133,300	$1,172,800	$1,380,345	$1,420,595
Percent of Revenue	103.8%	105.2%	105.4%	104.5%
YOY Increase (Decrease)	n/a	$39,500	$207,545	$40,250
YOY % Increase (Decrease)	n/a	3.49%	17.70%	2.92%

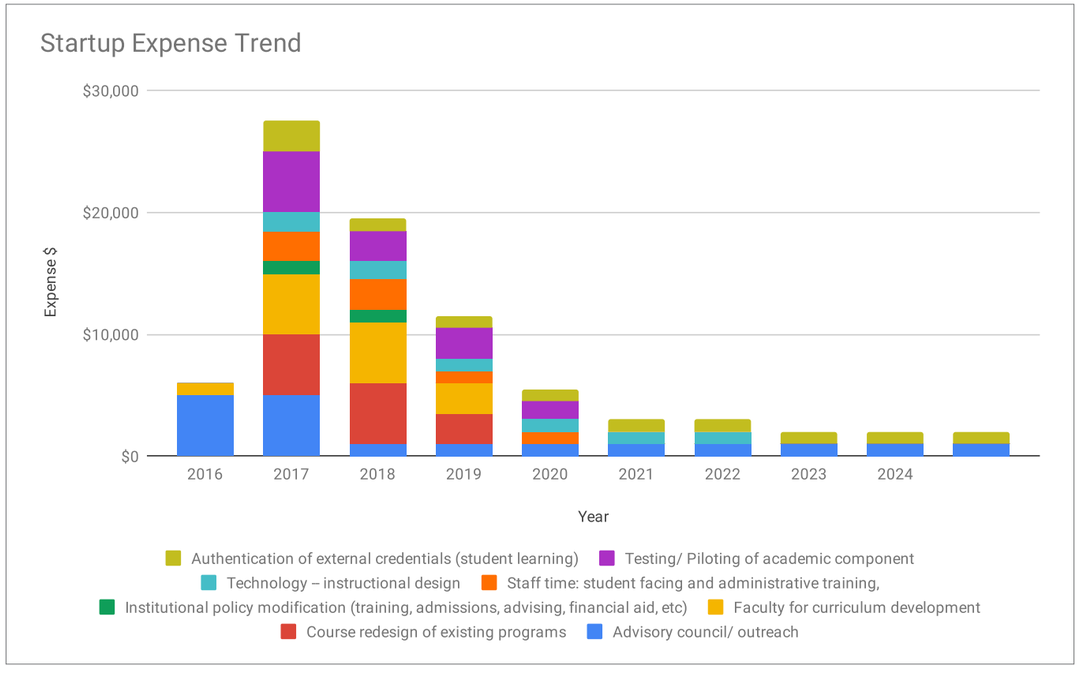
Program Charts Tab (blue)

This tab is the same structure as the Operating Charts tab. Please see that section of this document for description about the charts represented here and the questions that each chart is trying to answer.

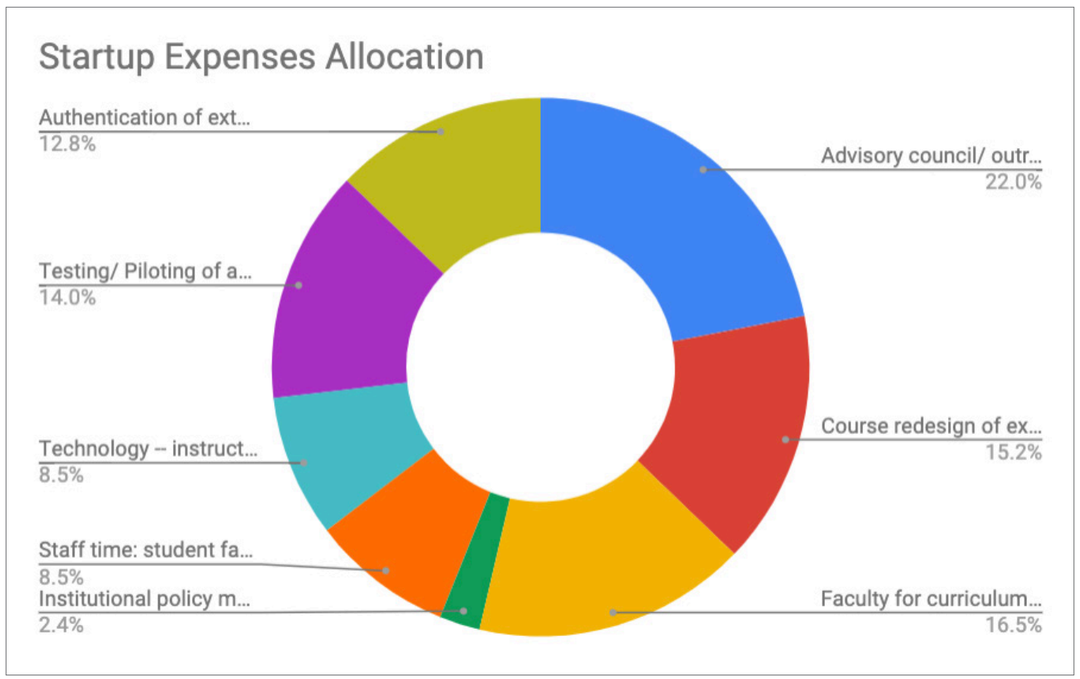
Where appropriate, the charts here indicate the segments related to additional revenue or expenses beyond the baseline operating revenue or expenses. In addition to the charts represented in the Operating Charts tab, one additional chart is added to this tab which is explained here.

Startup Expense Trend & Allocation

This chart shows the comparison of the various indirect expense categories year by year. Each of the categories is represented by a different color as depicted in the legend.



The Startup Expenses Allocation chart shows the relative proportions of each expense category. The labels of each segment of the circle identify the category name and the percentage value.



Questions:

This chart helps to answer questions like:

- What is the proportion of my total expenses allocated to a specific category?
- What is the trend of each expense category compared to the others from year to year?
- What are the projections of each expense category?
- What is the percentage spent on (X Category) compared to (Y Category)? Or compared to the whole?

Glossary of Terms

BIT: Before income tax

Break-even: The point when revenues meet or exceed expenses and an excess starts to be realized

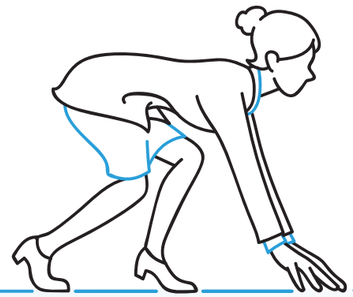
FTSE: Full-time student equivalent

ROI: Return on Investment

SME: Subject Matter Expert

YOY: Year over Year (trend increase or decrease from prior year)

Getting **Ready** to Build a CBE Program?
Set to Take Your Program to the Next Level?
Don't **Go** It Alone!



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