



Understanding the Per-Child Cost of an ECE Center

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Learning objectives

- Understand the concept and practice of breakeven analysis
- Calculate the per-child cost for a child care center

Learning objectives

- Understand the income and cost variables that influence per-child cost
- Control income and cost variables to positively affect the bottom line

Breakeven Analysis

- Breakeven Analysis is a tool that lets us determine the level of activity (number of children enrolled) that will cover all of our expenses.
 - ***The breakeven point is that point where the business has no profit and no loss.***

The per-child cost workbook is a more sophisticated break-even analysis tool.



Creating a Fast Break-even Chart: A-Z Child Care Center

Use "Creating a Fast Breakeven Chart" handout, a ruler, a calculator, and a blank piece of paper for this activity

First Children's Finance

- **This workshop is designed to take you through First Children's Finance Per-child cost analysis tool:**
 - Used to determine profitability per classroom and support critical decisions about rates, staffing, and managing expenses.



First Children's Finance

- First Children's Finance provides loans and business-development assistance to high-quality child care businesses serving low- and moderate-income families. Check out their website for additional information and resources:

<http://www.firstchildrensfinance.org/>



Open the Excel Workbook

Using Microsoft Excel

- Start Microsoft Excel and open the file, "PCC MASTER For INPUT.xlsx"

Create a Master File

- Before jumping in with any new spreadsheet, create a **Master File**.
- Keep the “PCC MASTER For INPUT.xlsx” as your master file
 - Go ahead and select ‘File’, then ‘Save’ and save the file to “My Documents” in your preferred folder.
- Now select File, “Save As”, and save the file again with a new name, for example: “PCC Second Home CCC 2018”



Let's Learn about Second Home Child Care Center

- The center has a licensed capacity of 40 children; 44 children are enrolled
- The center is open 52 weeks of the year and offers several programs: infant, toddler, pre-school, and before/after school



Let's Learn about Second Home Child Care Center

- The center has 12 paid staff; the director and one lead-teacher are full-time
- Full time staff receive paid health insurance at a cost of \$625/month



Second Home CCC: Room Staffing

- Go to "Room Staffing" worksheet
- Enter Room Staffing Data:

Infants: 1 Lead Teacher, 1 Assistant Teacher

- LT = 30 hours/week @ \$10.50/hour (52 weeks)
- AT = 30 hours/week @ \$8.50/hour (52 weeks)

Toddlers: 1 Lead Teacher, 2 Assistant Teachers

- LT = 40 hours/week @ \$10.50/hour (monthly benefits, \$625/month) (52 weeks)
- AT 1 = 30 hours/week @ \$8.25/hour (52 weeks)
- AT 2 = 30 hours/week @ \$8.00/hour (52 weeks)



Second Home CCC: Room Staffing

- **Enter Room Staffing Data:**

- **Pre-school: 1 Lead Teacher, 1 Assistant Teacher, 1 Aide**

- LT = 30 hours/week @ \$10.00/hour (52 weeks)
 - AT = 30 hours/week @ \$8.50/hour (52 weeks)
 - Aide = 25 hours/week @ \$7.25/hour (52 weeks)

- **Before/After School: 1 Teacher, 1 Assistant Teacher**

- T = 30 hours/week @ \$9.75/hour (36 weeks)
 - AT = 24 hours/week @ \$8.50/hour (36 weeks)



Second Home CCC: Room Staffing

- **Enter Room Staffing Data:**

- **Summer (School Age): 1 Teacher, 1 Assistant Teacher**

- T = 30 hours/week @ \$9.75/hour (12 weeks)
 - AT 1 = 24 hours/week @ \$8.50/hour (12 weeks)

- **Taxes:**

- FICA (Medicare and Social Security) rate = 7.65%
 - SUTA (State Unemployment Tax Rate) = 1.7%

**Note the number of weeks worked per year changed for the Before and After School and Summer School staff*



Second Home CCC: Room Staffing

Let's Review

- Staff per classroom is calculated:
 - Hours per week x Weeks Per Year x Hourly Wage = Annual Classroom Staffing Cost
- Taxes are calculated automatically based on rates input
- Monthly benefits are added as they apply – *you have to input that data*

Results = monthly cost per classroom



Second Home CCC: Room Staffing

Check your results!

- Open the file, “PCC Master Staff Results Review”
- Compare your per-month wages by classroom.
 - Do your numbers match? Excellent! You are ready to move on!
 - If not, go back and double-check your work? Did you input an hour wage incorrectly, hours per week?

If you think the worksheet formulas have changed and you are not sure how to proceed, don't be afraid to start over. Go back to that Master File!



Second Home CCC: All Other Expenses

Go to the “All Other Expenses” worksheet

- Open the file, “All Other Expenses Input Data”:
 - Input the salary and compensation costs for non-teaching staff
 - Input all other line items on a **monthly** basis using the information provided (This will require some calculations – you can make these calculations in Excel or use a calculator.)
 - When done check the screen to make sure your numbers match the numbers shown



Second Home CCC: All Other Expenses

Check your results!

- Open the file, “PCC Master All Other Expense Output”
- If your total expense = \$5,705 as shown on ‘All Other Expenses’ you are in good shape!
- Double-check the wage totals for non-teaching staff too!



Second Home CCC: All Other Expenses

Let's Review

- All other expenses include non-teaching staff
- Operating and program expenses are calculated monthly



Second Home CCC: Tuition Rates

Go to the “Child Care Tuition Rates” worksheet

- Input the rates from Table 1 in:
 - Columns C, E, G, I, K; and,
 - Rows 5, 6, 7, 11, 12
 - For example, Input the five-day infant rate of \$175 in Column C/Row 5.



Second Home CCC: Tuition Rates

Table 1

Group	5-day	4-day	3-day	2-day	1-day
Infants	\$175	\$152	\$129	\$106	\$83
Toddlers	\$165	\$143	\$121	\$99	\$77
Pre-School	\$160	\$138	\$116	\$94	\$72
Before/After	\$125	\$105	\$85	\$65	\$45
Summer (School Age)	\$160	\$138	\$116	\$94	\$72



Second Home CCC: Tuition Rates

Go to the “Child Care Tuition Rates” worksheet

- Input the enrollment days from Table 2 in:
 - Columns D, F, H, J, L; and,
 - Rows 5, 6, 7, 11, 12
 - For example, Input the number of toddlers enrolled for three full days, 2, in Column H/Row 6.



Second Home CCC: Tuition Rates

Table 2

Group	5-day	4-day	3-day	2-day	1-day
Infants	3	1	1	2	0
Toddlers	6	2	2	2	0
Pre-School	3	5	3	0	0
Before/After	5	3	4	2	0
Summer (School Age)	5	3	4	2	0



Second Home CCC: Tuition Rates

- **Input licensed capacity in Column B:**

- Infants = 8
- Toddlers = 10
- Preschool = 10
- Before/After School = 12
- Summer School Age = 12

The workbook is designed to work with licensed capacity – you can choose the capacity for each classroom based on your preferred capacity, staff/child ratios, etc. – whichever works best for you. You must enter a number, however, for this tool to work.



Second Home CCC: Tuition Rates

Check your results!

- Open the file, “PCC MASTER Tuition Output”
- Check your Revenue Per Week numbers. If they are what you see below, you’re in good shape

Infant Room	\$1,018.00
Toddler Room	\$1,716.00
Pre-school Room	\$1,518.00
Before/After School	\$1,410.00
Summer School Age	\$1,866.00



Second Home CCC: Tuition Rates

Let's Review

- Enter the full day rate for tuition for each group (infant, toddler, etc.)
- Enter the number of children enrolled at each rate for the specific number of days for each group



Second Home CCC: Tuition Rates

Let's Review

- Result one: price per unit – a unit is one half-day of care (calculated for each classroom)
- Result two: Revenue per week per classroom



Calculated Spreadsheets

Done with data entry!

- Let's explore what the data tells us about Second Home Child Care Center



Calculated Spreadsheets

1. Cost Analysis Per Unit Worksheet
2. Breakeven Analysis Worksheet
 - a. Quick and Dirty Breakeven – Before and After Box
 - b. Quick and Dirty Breakeven – Summer School Age Box
 - c. Annualized Income and Expenses Box
 - d. Annualized Income and Expenses (School Age Only) Box
 - e. Number of Summer School Aged Children Needed for Breakeven Box



1. Cost Analysis Per Unit Worksheet

Go to the “Cost Analysis Per Unit” worksheet

- Note that each column is headed by a letter, using letters A-M (in Row 1).
 - These letters help us understand how the calculations in the worksheet are made. For example, Column F (Utilization Rate) is calculated by dividing Column E (Units Used) by Column I (Licensed Capacity [LC] in the # of Units Used)



1. Cost Analysis Per Unit Worksheet

- **Columns worth noting:**
 - J = Current Group Revenue Per Week
 - Amount each classroom **earns** in revenue per week – this is taken from the “Child Care Tuition” worksheet so changes there will affect what you see here.
 - K = Current Group Expense Per Week
 - Amount each classroom **expends** per week, including staff costs and all other expenses.
 - L & M = Net
 - This is the amount of **profit or loss** calculated for each classroom per week (L) and per year (M); note that based on the data we entered, 3 out of 5 classrooms are losing money on a weekly and annual basis!



1. Cost Analysis Per Unit Worksheet

- **Columns worth noting:**

- G = Cost per Unit

- Provides information on cost per unit of care by classroom. Important data point to watch when adjusting expense drivers, such as salaries, benefits, etc.

- F = Utilization Rate

- Amount of capacity per classroom used based on current enrollment. Higher enrollment equals a higher utilization rate. Knowing your historical utilization rate is helpful in budgeting.

Make note that the 'unit' of care in these calculations is a ½ day unit of care. Two ½ day units = one full day of care.

2. Breakeven Worksheet

- **Go to the Breakeven Worksheet**
 - Note that there are several data boxes in this worksheet; we will explore each one

2. Breakeven Worksheet

a. Quick and Dirty Break Even – Before and After Box:

- Based on 9 months of enrollment – other three months calculated in **Quick and Dirty Breakeven Summer School Age Box**
- **Share of Total Enrollment** is calculated by dividing enrollment for a classroom by total licensed capacity

2. Breakeven Worksheet

a. Quick and Dirty Break Even – Before and After Box:

- **FTE Children Currently Enrolled** is taken from the Cost Analysis per unit spreadsheet (Column D)
- **Number of Kids Needed to Breakeven** is calculated by dividing monthly expenses by the monthly tuition per child

2. Breakeven Worksheet

a. Quick and Dirty Break Even – Before and After Box:

- **Childcare Wages and Benefits** for each classroom is taken from the *Room Staffing* worksheet
- **All Other Expenses** are allocated to each classroom based on the Share of Total Enrollment percentage
- **Occupancy** is segregated because it is often a substantial cost item and changes in occupancy can significantly impact the bottom line

2. Breakeven Worksheet

b. Quick and Dirty Break Even – Summer School Age Box:

- Switches out *Before/After School* with *Summer School Age* (Column H)
 - **Represents three months of income and expense**
 - **Assumption is that enrollment levels change and expenses may change during these months**
- Note that **Breakeven** remained the same for all other classrooms

2. Breakeven Worksheet

c. Annualized Income and Expenses Box:

- Annualized income and expense for all classrooms broken down by school year income/expense **and** summer income/expense
- Calculated by multiplying monthly total for each line item (e.g. Occupancy) by either 9 or 3
- In this scenario net income for the year is negative, (-\$3,534); school year losses are minimized by summer profit

2. Breakeven Worksheet

d. Annualized Income and Expenses (School Age Only) Box:

- Annualized income and expense for Before and After and Summer School programs only
- Note that school age programs are subsidizing other programs (Net loss for non-school age programs for the year is \$22,818.85, calculated from the *Cost Analysis Per Unit* worksheet).

2. Breakeven Worksheet

e. Number of Summer School Age Children Needed for Breakeven:

- Center incurs operating costs during summer months (\$3,821/month – Cell H43); the center should aim to offset those costs through summer school enrollment
- Calculation determines how many summer school children should be enrolled to support those costs

2. Breakeven Worksheet

e. Number of Summer School Age Children Needed for Breakeven:

Number of Summer School Aged Children Needed for Breakeven:	
Before/After School Profit/Loss	6,600
Monthly summer profit to be earned to offset school year loss	(2,200)
Summer School Age Monthly Expenses	<u>3,821</u>
Total	\$ 1,621
Monthly Summer Tuition/Child	\$ 704
Summer School Age Breakeven	2.30

Divide Before/After Profit/Loss by 3, number of months in summer program; multiply by 1, to reduce monthly summer program expense by this amount.

Carryover Before/After School program profit or loss to support monthly summer program expense

Adjusted monthly summer program expense, divided by monthly summer tuition per child indicates enrollment of 2.3 children per month needed to support summer program expense



Scenarios

What happens when things change?

- Let's find out!

Scenarios

Save your work first:

- Save your current work – this is your master file: **“PCC Second Home CCC 2018”**
- Now select “Save As”, add rename the file: **“PCC Second Home Scenario One Variable Costs”**
- Repeat the “Save As” step and call the next file, **“PCC Second Home Scenario Two Increase Rates”**
- Repeat the Save As step and call the next file, **“PCC Second Home Scenario Three Increase Enrollment”**



Second Home CCC: Scenario One – Variable Costs

Be sure to work in the correct file, “PCC Second Home Scenario One Variable Costs”; Make the following changes in the “All Other Expenses” Worksheet:

- Director decides to cut advertising budget in half – commissioning one large ad rather than two
- Director decides to email center annual newsletter/report rather than mail it to reduce annual printing costs to \$120 and annual postage to \$600



Second Home CCC: Scenario One – Variable Costs

Continue making changes:

- Director renegotiates food contract and cuts some food expense, reducing annual cost to \$6,000
- What is the new annualized net income? **-\$1,254**



Second Home CCC: Scenario One – Variable Costs

Not satisfied the Director makes one more change:

- Director reduces annual professional development benefit to \$125/employee
- What is the new annualized net income now?
\$246
 - This director is feeling nickel and dimed!



Second Home CCC: Scenario Two – Increase Rates

Now open the file, “PCC Second Home Scenario Two Increase Rates”:

- Director decides to increase infant and toddler rates, which are the most highly subsidized by other programs:
 - Infant annualized net loss: \$9,645
 - Toddler annualized net loss: \$9,357



Second Home CCC: Scenario Two – Increase Rates

Make the following changes in the “Child Care Tuition Rates” Worksheet:

- Director increases each infant and toddler day rate by \$3
 - What is the new annualized net income? **-\$798**
- Director increases each infant and toddler day rate by \$5 **instead** (start over or increase each rate by \$2 more)
 - What is the new annualized net income now? **\$1,026**



Second Home CCC: Scenario Two – Increase Rates

What to note from the Results in Scenario Two:

- Three classrooms are still losing money
- The number of kids needed to breakeven has not really changed
- Raising rates is a tricky thing to do customer-service wise



Second Home CCC: Scenario Three – Increase Enrollment

Now open file, “PCC Second Home Scenario Three Increase Enrollment”

- Director taps into her network, word of mouth, contact list, etc. to increase enrollment:
 - **Make this change:** One infant attending 4 days a week is added to enrollment



Second Home CCC: Scenario Three – Increase Enrollment

- What is new the annualized net income?
\$3,762
- What happened to the utilization rate?
Up 10% to 75%!
- What happened to cost per unit at current enrollment?
Down \$3.13



Second Home CCC: Scenario Three – Increase Enrollment

- **Bump up Enrollment First!**
 - Know your utilization rate. Are you maximizing capacity?

More Scenarios

- **Use scenarios to get comfortable with the Per Child Cost Analysis Workbook**
 - Check out the “Exploring Additional Scenarios” handout for guiding questions and scenario ideas
 - Practice!



Wrap-up

- Plug in your center's numbers
- Play with it - practice or you will forget
- Keep a clean master file (so you can always start over)



Wrap-up

- **Use the PCC Workbook:**
 - Whenever you are considering adjusting your program (e.g., adding a classroom)
 - Whenever you are considering a significant change in operating costs (facility relocation, adjustment in mortgage)
 - When budgeting (the time of year you are most thoughtful about your income and expense)



Resources

- First Children's Finance. Retrieved from www.firstchildrensfinance.org/businessresourcecenter/centers-2/finance/finance-tools/
- Understanding Cost Structures at Child Care Centers by The Good Work Network
- *The Bottom Line for Children's Programs: What you need to know to manage the money* by Gwen G. Morgan and Bess R. Emanuel