**Jump Start Micro-Enterprise Credential – Key Financial Concepts Teacher Guide**

(Upgraded: July 2016)

Introduction for teachers only:

The financial concepts covered in this handout are challenging. They are presented here in a “plain English” manner that we hope enables students to master the concepts, even if they can’t replicate all of the calculations.

Many teachers may find these concepts challenging as well, especially if they are “discipline subject” teachers (like Cosmetology or Civics teachers) rather than teachers of business-oriented courses.

Teachers can contact [JumpStart@la.gov](mailto:JumpStart@la.gov) to request onsite or virtual training on these materials.

Teachers can also contact [JumpStart@la.gov](mailto:JumpStart@la.gov) in the days prior to using these materials with students in order to “brush up” on key concepts.

During Spring 2016 teachers may also contact [lefty@la.gov](mailto:lefty@la.gov) to request Dave Lefkowith as a guest instructor for these materials. Please contact Lefty a few weeks in advance to confirm mutually convenient dates for this guest instruction.

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| **Types of Ownership** | |
| Sole Proprietorship (or Partnership) | An individual (or group of individuals) owns the company. Owners are taxed on the profits of the company. Owners are personally liable for any debts or judgments against the company. |
| Corporation | A corporation is a person in the eyes of the law. The corporation is taxed for profits and is liable for any debts or judgments. Corporations are owned by shareholders (individuals or other corporations). |
| Limited Liability Corporation (LLC) | A special type of corporation where individual owners (or “members”) are taxed on the profits of the company, but the corporation (not the member-owners) is liable for debts or judgments against the company. |
| **For the purposes of the Micro-Enterprise Credential, we’ll assume all start-ups are LLCs.** | |

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| **Creating a “Pro Forma”** | |
| **A “pro forma” is a projection of your company’s financial performance.**  Business leaders brainstorm how well their company will do over the next year (or “quarter”) by considering two critical components of financial performance: | |
| **Revenue Projections** | **Cost Projections** |
| * What goods and services your enterprise will offer * What prices you will set * How many “units” you will sell * ***“Total revenue” = units x price*** | * What “fixed costs” or overhead your enterprise will require * What “variable costs” are part of every unit you sell * ***“Total costs” = [fixed costs] + [variable costs x units]*** |
| **A business is profitable when its revenues are greater than its costs.** | |
| **See next page for the definition of those terms in quotation marks** | |

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| **Definition of Key Terms: Creating a “Pro Forma”** | | | | | | | | | | | | | |
| Pro Forma | | A Latin phrase (“for the sake of form”) that in business means a projection of future financial performance. A pro forma usually takes the form of a projection of future revenues and costs. | | | | | | | | | | | |
| Quarter | | Most projections are for a year (or “annual” projections). A “quarter” means three months. New and seasonable businesses are most likely to track quarterly projections to make sure they’re on track for success. | | | | | | | | | | | |
| Units | | Units refer to the “things” your company sells. Retail stores sell many different types of units. Service businesses can sell different services (example: men’s haircuts, women’s hair styling, manicures, etc.) | | | | | | | | | | | |
| Fixed Costs | | Costs that do not vary based on the units sold by your enterprise. Fixed costs are often incurred as you start your enterprise, before you know how well your enterprise will perform.  Example: when you sign your lease, your store rent is now a fixed cost that will not vary based on how many units you sell. | | | | | | | | | | | |
| Variable Costs  Cost of Goods Sold | | Costs that vary based on the units sold by your enterprise.  “Cost of Goods Sold” mean the costs that make up one unit of what you sell. These can be labor costs as well as material costs.  Example: when you sell a hat, the variable costs include: a) the hat’s material; and b) the labor cost required to make the hat. | | | | | | | | | | | |
| Total Revenue | | Units times price. If your enterprise sells more than one type of unit, then your Total Revenue equals the sum of revenues created by selling each type of unit. | | | | | | | | | | | |
| Total Costs | | Fixed costs plus variable costs. If your enterprise sells more than one type of unit, your Total Costs equal the sum of your fixed costs and the sum of variable costs (or costs of good sold) for each type of unit. | | | | | | | | | | | |
| **Extra Credit Concepts** | | | | | | | | | | | | | |
| Cash Flow | | Total Revenues minus Total Cost *minus one-time expenditures (called “capital expenditures”) on equipment you will use for many years.* | | | | | | | | | | | |
| Semi-Variable Costs | | Costs that vary *somewhat* based on the number of units you sell. Example: if your enterprise buys an iPhone you won’t have to pay again for apps you already own. | | | | | | | | | | | |
| **Take the Concepts Quiz on the next page to prove your mastery of key pro forma concepts.** | | | | | | | | | | | | | |
| **Concepts Quiz** | | | | | | | | | | | | | |
| You open a new gourmet ice cream shop in a temperate weather community because you believe you’ll be able to attract customers throughout the year. The summer tourist season will be by far the busiest time of year, but your shop will consistently attract local residents throughout the year.  You found a great location. The owner of the shop is retiring so she will rent you the shop that already has all the freezers and equipment you’ll need.  The appeal of your shop will be the unbelievable quality of your ice cream. You’ll serve the ice cream per scoop, in small and large sundaes, and in milkshakes. | | | | | | | | | | | | | |
| **Quiz Questions** | | | | | | | | | | | | | |
| When you create your pro forma for this business, should you assume the same revenues for each quarter?  Why or why not? | | | | | | This ice cream business will be highly seasonal, with much greater revenues during the summer months (Jun, Jul, Aug).  This owner might want to plan on a “fiscal year” that starts in March, not January (see spreadsheet) | | | | | | | |
| List two or more variable costs for this business. | | | | | | | | | Ingredients for ice cream, store labor | | | | |
| List at least one fixed cost for this business. | | | | | | | | | Rent | | | | |
| Check the correct answer: | | | Fixed Cost | | | | | | | Variable Cost | | | Semi-Variable Cost |
| Ice cream cones | | |  | | | | | | | ✔ | | |  |
| Business insurance | | | ✔ | | | | | | |  | | |  |
| Hourly labor | | |  | | | | | | | ✔ | | |  |
| Electricity Costs | | |  | | | | | | |  | | | ✔ |
| Extra Credit: What business decision would increase the amount of this ice cream store’s electricity bills? | | | | | | | Extended operating hours during the summer would increase electricity bills (more air conditioning during the hot summer days, more lighting at night) | | | | | | |
| Extra Credit: If you decide to buy a new milkshake mixer to produce more milkshakes, what needs to happen for your cash flow to go up, not down? | | | | | | | Your store will need to sell many more milkshakes so that the total per unit profits will be greater than the cost of the mixer.  This is called a breakeven analysis. | | | | | | |
| **Determining “Contribution Margin” (your profit per unit)** | | | | | | | | | | | | | |
| **Business leaders calculate the profit per unit to make good business decisions.**  For your ice cream store, the costs for your different menu items are: | | | | | | | | | | | | | |
| **Menu Item** | **Ingredients** | | | **Labor Cost** | | | | **Cones or Cups** | | | **Total Costs of Goods Sold** | | |
| One scoop | $1.25 | | | 45¢ | | | | 10¢ | | | $1.80 | | |
| Two scoops | $2.50 | | | 90¢ | | | | 10¢ | | | $3.50 | | |
| Small sundae | $3.00 | | | $1.00 | | | | 10¢ | | | $4.10 | | |
| Large sundae | $4.50 | | | $1.20 | | | | 10¢ | | | $5.80 | | |
| Milkshake | $2.75 | | | $1.50 | | | | 15¢ | | | $4.40 | | |
| Now that you know your costs per unit, you can set your price. ***Your contribution margin (or profit per unit) will be: Unit Price – Unit Costs of Goods Sold***  What does your price depend on? Many factors:   * What your items costs (because you always want a price above your cost!). * The prices of competitive ice cream stores that are nearby. * What you believe is the value and quality of your ice cream.   In the chart below enter the prices you believe are “right” for each item. Calculate your contribution margin. Be prepared to defend why you’ve set the right prices. | | | | | | | | | | | | | |
| **Menu Item** | **Price** | | | | | **Costs of Good Sold** | | | | | | **Contribution Margin** | |
| One scoop | $4.00 | | | | | $1.80 | | | | | | $2.20 | |
| Two scoops | $8.00 | | | | | $3.50 | | | | | | $4.50 | |
| Small sundae | $9.00 | | | | | $4.10 | | | | | | $4.90 | |
| Large sundae | $12.00 | | | | | $5.80 | | | | | | $6.20 | |
| Milkshake | $9.00 | | | | | $4.40 | | | | | | $4.60 | |
| Discussion: Why are these the “right” prices for your store? | | | | | Students should mention: a) premium prices given the quality of their ice cream; b) prices at local competitors. | | | | | | | | |
| **Fixed Costs (including Start-Up Costs)** | | | | | | | | | | | | | |
| What would be some of the fixed costs as you operate this ice cream store?   * Your monthly rent. No matter how many or how few customers you have you will owe your landlord the same amount of rent each month. * Business insurance. Businesses typically need several different types of insurance (example: liability insurance to protect them against accidents on their premises). The cost of this insurance is the same regardless of how many customers the store will have. * Overhead salaries. If your store hires a bookkeeper to help keep your records, you will need to pay this bookkeeper his/her salary no matter how many customers come to your store.   To make an accurate pro forma projection of future financial results, an enterprise needs to make sure it understands the fixed costs it will incur.  ***Note: one item not mentioned so far is how much you’re going to pay yourself as the owner-operator of a business.***  In the experience of most entrepreneurs, how much the owner gets paid only gets determined *after* the business succeeds. That’s why many new businesses create a pro forma that shows: “Profits before taxes and owner compensation.”  The hope of every business owner: that his/her “profit before taxes and owner compensation” is far greater than he/she would earn working for anyone else. | | | | | | | | | | | | | |
| **Extra Credit Concept – Semi-Variable Costs** | | | | | | | | | | | | | |
| Utility costs (electricity, water) vary *somewhat* with how many customers you serve. Utility bills come with a fixed component that your business will pay no matter how many customers you serve.  But – for example – if you stay open late at night or if your milkshake mixer uses a lot of electricity, then your utility bills would go up based on serving these additional customers.  When a business makes a projection of how much it utility costs will be – or other “semi-variable” costs like facility maintenance (you need to clean the store each evening, but stores that serve more customers require more maintenance) – your projections should consider both the truly fixed component of these costs as well as the operating decisions you’ll make that might increase these costs beyond their fixed level. | | | | | | | | | | | | | |

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| **Creating Your Own Pro Forma Financial Projection** | | | | | | | | | | | | |
| Let’s try something very challenging: *let’s complete an annual pro forma financial projection for this ice cream store:*   * *with quarterly projections that reflect more revenue during your busy summer season;* * *using the financial information established below for prices, fixed costs, both variable costs and semi-variable costs, and units sold.*   This will be a pretty sophisticated assignment . . . so don’t get discouraged. *Act like an entrepreneur and show some grit!* | | | | | | | | | | | | |
| **Menu Item** | | **Summer Quarter Units Sold** | | | | | | | **Units Sold: All other Months** | | | |
| One scoop | | 3,000 per month | | | | | | | 1,000 per month | | | |
| Two scoops | | 3,000 per month | | | | | | | 1,000 per month | | | |
| Small sundae | | 1,200 per month | | | | | | | 500 per month | | | |
| Large sundae | | 600 per month | | | | | | | 200 per month | | | |
| Milkshake | | 800 per month | | | | | | | 800 per month | | | |
| Fixed Costs: | Monthly Rent | | | Annual Insurance Costs (payable in quarterly installments) | | | | | | | Annual Salary for the Part-Time Bookkeeper | |
| $4,000 | | | $2,400 | | | | | | | $24,000 | |
| **Menu Item** | | **Price** | | | **Costs of Good Sold** | | | | | **Contribution Margin** | | |
| One scoop | | $4.00 | | | $1.80 | | | | | $2.20 (55% of price) | | |
| Two scoops | | $8.00 | | | $3.50 | | | | | $4.50 (56% of price) | | |
| Small sundae | | $9.00 | | | $4.10 | | | | | $4.90 (54% of price) | | |
| Large sundae | | $12.00 | | | $5.80 | | | | | $6.20 (52% of price) | | |
| Milkshake | | $9.00 | | | $4.40 | | | | | $4.60 (51% of price) | | |
| Semi-Variable Costs: | | Utilities – Fixed Charges | Utilities – Extended Summer Hours | | | | | Utilities – All other months | | | Monthly Maintenance Charges: | |
| $500 / month | $1,000 / month | | | | | $100 / month | | | Summer: $900 | Other: $300 |
| Advertising Costs: | | Pre-Summer Quarter (Mar – May) | | | | | Summer (Jun – Aug) | | | | All Other Months | |
| $2,000 / month | | | | | $500 / month | | | | $1,000 / month | |
| **If you want to attempt this exercise your teacher can provide you with a spreadsheet that will help you.** | | | | | | | | | | | | |
| **Questions on the Pro Forma** | | | | | | | | | | | | |
| Does this pro forma indicate that your ice cream shop might be a profitable venture? Would you find this opportunity attractive? | | | | | | | | Yes – “profits before taxes and owner compensation” of ~$123,000.  But there’s LOTS OF RISK – see below. | | | | |
| Which is the most profitable menu item? Can you determine why? | | | | | | | | Absolute amount – large sundae because it has the highest price.  Percentage – two scoops, because you get twice the revenue of one scoop but the cup costs the same. | | | | |
| Milkshakes are less profitable on a per unit basis than any other item. But what’s attractive about milkshakes that might keep them on the menu? | | | | | | | | Milkshakes appear to be a constant seller. Customers will buy the same number of milkshakes every month, even when they’re not going to eat scoops or sundaes during the colder weather. | | | | |
| Why might it make sense for this business to advertise more during the slow seasons, but cut advertising during the summer? | | | | | | | | In colder months local customers may not think of eating ice cream – advertising and coupons might remind them that premium ice cream is *always* delicious.  Advertising isn’t as necessary during the summer because people naturally eat more ice cream during the summer. | | | | |
| How many more milkshakes would this store need to sell in order to pay for a new milkshake mixer that costs $7,360? | | | | | | | | (This is also called a “breakeven analysis”)  The per unit contribution margin for a milkshake is $4.60. $7,360 ÷ $4.60 = 1,600 more milkshakes.  The store sells 800 milkshakes each month. If the store could increase milkshake sales to 1,000 per month with this new mixer, then it would take 8 months to pay back the cost of the mixer. | | | | |
| What are some of the major risks in pursuing this new venture?  ***THIS IS THE MOST IMPORTANT TOPIC TO DISCUSS WITH STUDENTS***  ***What students have to realize is: there are LOTS of risks in operating any small business.***  ***It’s like being a row boat on the ocean. When the water is calm, the ride is amazing.***  ***But when things get rough, even small waves can fill the small boat with water.***  ***Entrepreneurs and small business owners MUST have lots of grit in order to understand these risks and still decide to operate their businesses.*** | | | | | | **Competition** – what happens if a big national premium ice cream chain opens down the street?  **Price** – what happens if customers think your prices are too high? (If the price for each unit is reduced by $1, then projected store profits before taxes and owner compensation go down ~50%!)  **Weather** – what happens if it’s a cold and rainy season, and people just don’t eat that much ice cream one summer?  **Recession** – what happens if there is a recession and people switch to less expensive ice cream rather than your premium ice cream?  **Personal Distraction** – what happens if you sprain your wrist playing with your kid and can’t scoop ice cream during the summer? What happens if there is an illness in your family that prevents you from working long summer hours when customers are flocking into the store?  **Hiring** – what happens if you find that you can’t hire good employees unless you pay them twice what your financial plan calls for? (This would reduce the profit before taxes and owner compensation by over 40%!) | | | | | | |
| How often do you think the owner of this store would take vacation during the summer? Why or why not? | | | | | | | | Never. This is the busiest time of year.  This entrepreneur would need to sacrifice summer vacations for as long as he / she intended to own and operate the store. | | | | |
| Do you think this is a good business opportunity for an entrepreneur? | | | | | | | | One with grit. | | | | |

***Congratulations! You’ve finished the Key Financial Concepts module of the Jump Start Micro-Enterprise Credential materials.***