

Mohave Community College Small Business Development Center Financial Statement Spreadsheet Program

Copyright (c) 1998 NPC SBDC

Table of Contents

- 1.0 Overview
- 2.0 Basic Structure of the program
- 3.0 Why do projections?
- 4.0 How to get started
- 5.0 The key sections
 - 5.1 The startup balance sheet
 - 5.2 Liabilities and net worth
 - 5.3 Income statement projections: years one through five
 - 5.4 The cash flow statement
 - 5.5 Monthly projections for year one
- 6.0 Inputting Variables
 - 6.1 B Balance Sheet
 - 6.2 1st Year Income Statement
 - 6.3 1st Year Cash Flow
 - 6.4 1st Year Balance Sheet
 - 6.5 2nd Year Income Statement
 - 6.6 2nd Year Cash Flow
 - 6.7 2nd Year Balance Sheet
 - 6.8 3rd Year Income Statement
 - 6.9 3rd Year Cash Flow
 - 6.10 3rd Year Balance Sheet
 - 6.11 4th Year Income Statement
 - 6.12 4th Year Cash Flow
 - 6.13 4th Year Balance Sheet
 - 6.14 5th Year Income Statement
 - 6.15 5th Year Cash Flow
 - 6.16 5th Year Balance Sheet
- 7.0 Printing Reports
 - 7.1 CF Consolidated
 - 7.2 IS Consolidated
 - 7.3 BS Consolidated
 - 7.4 Other reports
- 8.0 Breakeven analysis
- 9.0 RMA Case study analysis
- 10.0 Financial Ratio Analysis
 - 10.1 Liquidity
 - 10.2 Solvency

10.3 Profitability
11.0 Writing up Assumptions

1.0 Overview

The NPC SBDC Financial Statement Spreadsheet Program is a tool for a financial analyst or client to prepare financial projections for use in business plans and financial planning. It was developed by Paul Holbrook, a Faculty member and SBDC Counselor for Northland Pioneer College, specifically for use in assisting clients with their needs in these areas.

This program is designed to provide accurate and authoritative information in regard to the subject matter covered. It is sold with the understanding that the publisher and author is not engaged in rendering legal, accounting or other professional service. If legal advice or other expert assistance is required, the services of a competent professional person should be sought. There is no guaranty or warrantee, implied or otherwise, regarding the accuracy and final product of the spreads produced using the program.

Please direct any comments, questions, or suggestions regarding this book to: Northland Pioneer College, Small Business Development Center, P.O. Box 610, Holbrook, AZ 86025 (520) 532-6111.

2.0 Basic Structure of the Program

The program is an Excel spreadsheet, designed as a workbook, to enter key financial variables and edit projections “on the go”. You see the product of your efforts as you enter data, and can make changes without printing the whole spreadsheet. Although there are nineteen basic worksheets as part of the program, the ultimate number of pages to be printed out would vary from three to six. A copy of the “Sample Retail” spreads are attached to this description.

3.0 Why do projections?

The financial portion of a business plan contains any historical financial statements for a business, along with your estimates of what the company will do for the future. These estimates are referred to as projections. For most business plans it is advised that you include five years in your projections. While this is a long time to project, especially if you are just getting started and forecasting one year seems difficult, it is really important that you have some idea of what your business will look

like in five years. If the outlook is not that good it allows you to make changes now which will solve the problem. Or perhaps you need to look at a larger operation before you can start drawing a salary. Whatever the scenario, it's good to know where you will be in five years.

4.0 How to get started

The process we employ here is by no means the only method to work on projections, just one that is logical and builds upon the work you've done as you go. This is one task that a computer can really help with. You can utilize a spreadsheet to put down your numbers, and then when you make a change the computer can automatically update your full report. Any future changes are made easily, and require just a few keystrokes and a reprinting to accomplish.

5.0 The key sections

5.1 The startup balance sheet

Starting with your startup balance sheet, you should put together your required assets, liabilities, and net worth for your new company. The net worth is the difference between the assets and liabilities. Starting with the assets, consider what level of cash you should have in the business. You want to be able to handle any normal operating costs, at least for a month or two, from cash. To run out of cash can cause you problems before you have really gotten started in business. Inventory, especially for retailers and manufacturers, is an important consideration. You can often determine your required (and desired) amount of inventory by doing some basic calculations, described on the next page.

For a retailer, inventory is your lifeblood. If you don't have inventory you don't have the ability to generate sales or income. A basic calculation I use with this situation is shown below which estimates your required starting inventory.

1. Estimate annual expenses	
Rent	\$ 12,000
Insurance	3,000
Utilities	2,400
Labor	24,000
Repairs & Maintenance	2,000
Owners Salary	
<u>24,000</u>	
TOTAL	\$ 67,400

2. Estimate your gross margin percentage

Per \$1.00 of retail sales:	\$ 1.00	
Cost of inventory	\$.70	70%
Gross profit margin	\$.30	30%

3. Calculate the sales required to meet expenses:
 - Take total expenses (\$67,400) divide by gross margin percent (30%)
 - Equals sales required \$224,667

4. Calculate the inventory required for sales:
 - Take sales required to meet expenses (#3) (\$224,667)
 - Multiply times cost of inventory percentage (70%)
 - Equals inventory required for sales
 - \$157,267

5. Adjust inventory based on times inventory turns
 - Take inventory required for sales (#4) (\$157,267)
 - Divide by time inventory turns (2 times)
 - Equals inventory required for startup \$ 78,633

This calculation is often an eye-opener for the small retail store that plans to open with only \$15,000 in inventory. You can see from the above example it's difficult to make a large living in retailing with only \$15,000, unless the inventory turns over 10 or 12 times per year.

For a manufacturer the calculation can usually be done using their product manufacturing cost estimates, and using the materials cost percentage times the projected sales for year one.

Accounts receivable can be a consideration for those businesses who will have to sell on credit. One of the best ways to project these is to look at them based on a percentage of sales. Bankers who analyze your Receivables normally like to see Receivables with a turnover of less than 90 days.

Fixed assets are also a major consideration for most small businesses. A fixed asset is any asset that will last more than one year. Examples include real estate, equipment, vehicles, breeding livestock, etc. In Module 3 you had the opportunity to put down initial cost estimates on your worksheet, which should go here.

5.2 Liabilities and net worth

The debt and net worth will total the same amount as your total assets. The relationship between debt and equity can be important in starting operations. In general, most lenders want to see your equity exceed their loans. Thus, you will want to show as much equity as you can to entice lenders. Contributions made personally to a proprietorship can be reflected as equity, thus tools or other equipment can be shown as assets and will also reflect as equity here.

If the business is a startup, and proposing a loan in your plan, you will want to include the loan as a liability in your startup balance sheet. If you are looking at a term loan, say to be repaid over five years, then it helps to print out a loan amortization schedule, too. Then you can allocate your payments of principal for the years to current portion of term debt (a short term liability) and the long term portion to long term liabilities under Notes Payable.

5.3 Income statement projections: years 1 through 5

Start with annual revenues, looking at number of units or desired production goals to begin. If you don't yet have an idea of what sales should be at this stage, don't despair. You can use the Robert Morris Associates (RMA) studies to estimate what you should be doing in sales for a firm in your industry with the same asset size. You can do this easily taking the RMA industry standard and multiplying the 'sales divided by total assets' ratio for your industry by *your* total assets. Then take this number and divide by the number of units you will have to sell or produce to see if it is reasonable.

For years two through five for sales and other expenses, often you will look at a percentage increase based on your overall growth plans. If inflation is running at three percent, you will want to use a growth rate above this to show 'real' growth. Another technique is to look at production figures in terms of unit sales and actual expenses. If your growth plans are extremely aggressive (in excess of 50 percent during a year) it may be preferable to use this later technique. As you are working on your projection be sure to scribble down notes on your assumptions, as these will be important when you start on your business plan write-up.

After you have finished projecting your income statement you will need to look at the balance sheet. Here's where the computer program makes the job easier. The program will make your debt reductions, asset and liability changes based on growth and historical percentages, and show a borrowing need or cash surplus based on the situation. You can then make adjustments based on what you see the results are. Doing this with pencil and paper will require a large eraser and lots of time!

5.4 The cash flow statement

It is important in operating a business that you have a handle on cash flow. You can be both profitable and broke if you don't pay attention to your cash. The easiest way to project cash flow is to take your income statement projections and make adjustments. Some of the obvious adjustments are loan payments and depreciation and amortization. The principal portion of any loan payment is not shown as an expense and needs to be deducted from net profit as an adjustment. Depreciation and amortization are 'non-cash' expenses, and are added to net profit to calculate cash flow. Other considerations are changes to operating assets and liabilities. A growth in accounts receivable or inventory will be a user of cash and needs to be a deduction. A decline in either will need to be shown as an addition. Accounts payable increases are a source of cash flow and will be shown as an addition, while decreases are a use of cash and shown as a deduction. The following describes the adjustments which need to be made to a Profit & Loss Statement to convert it to a Cash Flow Statement:

Net Profit	\$	-----
less: Loan principal payments	\$	-----
Increases in Accounts Receivable		\$

Increases in Inventory		\$

Decreases in Accounts Payable	\$	-----
plus: Depreciation & Amortization		\$

	Decreases in Accounts Receivable	\$

	Decreases in Inventory	\$ -----
	Increases in Accounts Payable	\$ -----
	Cash Flow	\$ -----

This is another area where the computer program shines. It will normally take your inputs and projections of the above variables and automatically calculate cash flow for you.

One last note on cash flow to emphasize the importance. We have observed retail clients who had failed to consider the impact of growing their inventory. In one case the client was profitable in their first year, but were forced to go out of business because they failed to plan on the impact of cash flow. If they had only projected their cash flow they probably would have been aware of this problem, and either raised more capital to make their business a success or not have started up at all.

5.5 Monthly projections for year one

Many businesses should look at their projections on a monthly basis for the first year at least. This can be done either before the first annual projection or after by taking these figures and allocating to the months. For a startup the monthly financials will take some time to build up and this needs to be considered here. Rarely will your first year be a whole one.

6.0 Inputting Variables

The entry of variables is done on a month to month basis for year one, quarterly for years two through three, and annually for years four and five. The worksheets progress left to right in the workbook, and key factors are described for each sheet below:

6.1 B Balance Sheet

This is your beginning balance sheet. For a startup business this is usually the starting point in the projection process, with a determination of the needs for operating and fixed assets, the equity contribution, and debt required if needed. For an existing firm, this is the latest year end (or interim) financial statement. Being an Excel worksheet, the user can make changes to column and row headings, and add additional columns or rows at the peril

of modifying the formulas to be useless. Items of note on the B Balance Sheet entry are:

1. Date needs to be entered over existing date on spreadsheet
2. Entry of key balance sheet data
3. Print a loan amortization schedule, if required, when you know there is a term loan amount required. If a short term borrowing need is determined, this will usually come out when you prepare your monthly cash flow (to follow). The amortization schedule will assist with determining your CPLTD (current portion long term debt) and LTP Term Debt (long term portion term debt), not only for year one, but subsequent years.
4. Depreciation should be estimated for fixed assets on entry section to the right of the data fields.
5. Interest rate on term loan should be entered on section to the right of the data fields.

6.2 1st Year Income Statement

This is your first years projection, with key data entered monthly.

1. Change date and months on top of page.
2. Enter key factors below
3. Enter projected sales and expenses

6.3 1st Year Cash Flow

This is your first years projection, with cash flow shown from balance sheet and income statement projections. Only changes will need to be shown, for example, cash balance at negative will need to be covered with equity injections or working capital loan. Excess cash can be shown as excess reduction to debt or excess cash on the balance sheet.

1. Change date and months, as required.
2. Enter assumptions on right side of data fields.
3. Enter loan proceeds or draws to balance cash at bottom of spread.

6.4 1st Year Balance Sheet

This is your balance sheet at the end of year one.

1. Change date, as required.
2. Enter CPLTD & LTP Term Debt from Amortization Schedule, if required.
3. Change other balance sheet entries as required.
4. Balance Assets and Liabilities, and use excess cash on balance sheet to allow for changes from income statement not reflected on balance sheet. Assets and Liabilities plus Capital must be the same amount.

6.5 2st Year Income Statement

This is your second years projection, with key data entered quarterly.

1. Change date on top of page as required.
2. Review and edit data and make changes as required.

6.6 2nd Year Cash Flow

This is your second years projection, with cash flow shown from balance sheet and income statement projections. Only changes will need to be shown, for example, cash balance at negative will need to be covered with equity injections or working capital loan. Excess cash can be shown as excess reduction to debt or excess cash.

1. Change date and months, as required.
2. Enter assumptions on right side of data fields.
3. Enter loan proceeds or draws to balance cash at bottom of spread.

6.7 2nd Year Balance Sheet

This is your balance sheet at the end of year two.

1. Change date, as required.
2. Enter CPLTD & LTP Term Debt from Amortization Schedule, if required.
3. Change other balance sheet entries as required.
4. Balance Assets and Liabilities, and use excess cash on balance sheet to allow for changes from income statement not reflected on balance sheet. Assets and Liabilities plus Capital must be the same amount.

6.8 3rd Year Income Statement

This is your third years projection, with key data entered quarterly.

1. Change date on top of page as required.
2. Review and edit data and make changes as required.

6.9 3rd Year Cash Flow

This is your third years projection, with cash flow shown from balance sheet and income statement projections. Only changes will need to be shown, for example, cash balance at negative will need to be covered with equity injections or working capital loan. Excess cash can be shown as excess reduction to debt or excess cash.

1. Change date as required.
2. Enter assumptions on right side of data fields.
3. Enter loan proceeds or draws to balance cash at bottom of spread.

6.10 3rd Year Balance Sheet

This is your balance sheet at the end of year three.

1. Change date, as required.
2. Enter CPLTD & LTP Term Debt from Amortization Schedule, if required.
3. Change other balance sheet entries as required.
4. Balance Assets and Liabilities, and use excess cash on balance sheet to allow for changes from income statement not reflected on balance sheet. Assets and Liabilities plus Capital must be the same amount.

6.11 4th Year Income Statement

This is your fourth years projection, with key data entered annually.

1. Change date on top of page as required.
2. Review and edit data and make changes as required.

6.12 4th Year Cash Flow

This is your fourth years projection, with cash flow shown from balance sheet and income statement projections. Only changes will need to be shown, for example, cash balance at negative will need to be covered with equity injections or working capital loan. Excess cash can be shown as excess reduction to debt or excess cash.

1. Change date as required.
2. Enter assumptions on right side of data fields.
3. Enter loan proceeds or draws to balance cash at bottom of spread.

6.13 4th Year Balance Sheet

This is your balance sheet at the end of year four.

1. Change date, as required.
2. Enter CPLTD & LTP Term Debt from Amortization Schedule, if required.
3. Change other balance sheet entries as required.
4. Balance Assets and Liabilities, and use excess cash on balance sheet to allow for changes from income statement not reflected on balance sheet. Assets and Liabilities plus Capital must be the same amount.

6.14 5th Year Income Statement

This is your fifth years projection, with key data entered annually.

1. Change date on top of page as required.
2. Review and edit data and make changes as required.

6.15 5th Year Cash Flow

This is your fifth years projection, with cash flow shown from balance sheet and income statement projections. Only changes will need to be shown, for example, cash balance at negative will need to be covered with equity injections or working capital loan. Excess cash can be shown as excess reduction to debt or excess cash.

1. Change date as required.
2. Enter assumptions on right side of data fields.
3. Enter loan proceeds or draws to balance cash at bottom of spread.

6.16 5th Year Balance Sheet

This is your balance sheet at the end of year five.

1. Change date, as required.
2. Enter CPLTD & LTP Term Debt from Amortization Schedule, if required.
3. Change other balance sheet entries as required.
4. Balance Assets and Liabilities, and use excess cash on balance sheet to allow for changes from income statement not reflected on balance sheet. Assets and Liabilities plus Capital must be the same amount.

7.0 Printing Reports

The reports shown above in 4.1, 4.2 & 4.3 are the basic output of the system. Printing these reports should be quite simple for your system, and normally will print out correctly on a printer configured for Excel 97 to print on 8.5 x 11 inch paper.

7.1 CF Consolidated

This is your report of consolidated cash flow which gathers data from other entry worksheets. This is one of the primary reports to print out. Review the data, print out and review again. A careful study of output will allow corrections before the data is presented to an outsider or investor who will suspect your whole plan if they can't trust your numbers!

Changes must be made to entry fields for years that need correction rather than merely changing the fields in this report.

7.2 IS Consolidated

This is your report of consolidated income statement which gathers data from other entry worksheets. This is one of the primary reports to print out. Review the data, print out and review again.

Changes must be made to entry fields for years that need correction rather than merely changing the fields in this report.

7.3 BS Consolidated

This is your report of consolidated balance sheet which gathers data from other entry worksheets. This is one of the primary reports to print out. Review the data, print out and review again.

Changes must be made to entry fields for years that need correction rather than merely changing the fields in this report.

7.4 Other reports as required

Other reports that one might wish to print out include the following:

1. First year balance sheet, which includes a ratio analysis section at the bottom of the page.
2. Second or third year income statement and cash flow show quarterly analysis, and may be helpful in some situations, particularly if there is a working capital requirement or seasonality to the business.
3. Any other entry screen the user might find valuable.

8.0 Break-even analysis

Another financial spreadsheet you should consider is the Break-even Analysis. This is a look at what sales level the business will not show either a profit or loss, but break- even. This allows you to monitor your activity and know based on this analysis, what the sales per day, week or month are, and whether you are making a profit or loss. To calculate your break-even use the following equation:

Fixed expenses divided by (1 - variable cost as a percent of sales)

For example, you have sales of \$100,000, variable costs \$60,000, variable cost as a percent of sales of 60% (\$60,000 divided by \$100,000), fixed costs of \$30,000, and a net profit of \$10,000. Your break-even would be calculated as follows:

Fixed expenses (\$30,000) divided by (1 - variable cost as a percent of sales (.60))

or \$30,000 divided by .40 = \$75,000

From this you can determine that your break-even sales are \$6,250 per month (\$75,000 divided by 12 months) which will allow you to monitor your sales volume for the month to know if you're making money or not at a glance. If you haven't reached \$6,250 for the month you won't be profitable for that month. If a daily figure would be better, divide the monthly figure by the number of working days in the month, and so on for weekly or other. Don't forget to include your salary requirements in the figures. If you don't, then you will not be looking at taking any salary for your efforts

9.0 Robert Morris Associates (RMA) Case study analysis

Here you will show your projections beside the standard for your industry. The RMA studies are averages for your industry, and helpful in identifying strengths and weaknesses to your projections. Using the RMA studies report you can show your percentages spread next to the RMA standard which allows easy comparison. This is called 'common sizing'. The printout described in Section 7.4 #1 has a section to manually input RMA figures to compare to your company projection.

10.0 Financial Ratio Analysis

This final report is valuable to bankers and other investors who study financial statements for a living. As you become more familiar with ratios you can use them to operate and monitor your business more effectively. The most important ratios deal with the following areas:

10.1 Liquidity ratios

These ratios measure your companies ability to meet your obligations. They look at the relationship between current assets (sources of cash) and their ability to cover current liabilities (uses of cash). The turnover ratios measure your ability to convert these current assets into cash or current liabilities as a use of cash.

Current Ratio: Current assets divided by current liabilities.
Normally expressed as a whole number, a ratio of 1.5 to 3.0 is

good. Small businesses that start with no debts will show an infinite ratio, which is not applicable.

Acid Test (Quick) Ratio: Cash, accounts receivable and other liquid assets divided by current liabilities. Also expressed as a number, a ratio of .85 to 2.0 is normal.

Accounts Receivable Turnover Ratio: Accounts receivable divided by sales times the number of days in the period. This is expressed in days, and a ratio of less than 90 days is usually acceptable.

Inventory Turnover Ratio: Inventory divided by Cost of Sales times the number of days in the period. This ratio can vary by industry greatly, a ratio of 120 days would be good for some retailers, not so good for others.

Accounts Payable Turnover: Accounts Payable divided by Cost of Sales times the number of days in the period. A ratio of less than 90 days usually indicates you're doing an adequate job of paying your bills.

10.2 Solvency Ratios

These ratios look at your companies net worth in relation to liabilities and revenues. These ratios are often referred to as leverage ratios, and when a banker tells you that you're too highly leveraged they are referring to this relationship.

Debt to Worth Ratio: Total liabilities divided by net worth. Expressed as a percentage, this ratio compares debt to equity. A ratio of less than 100% is usually good. A bank will start getting concerned when your ratio exceeds 300%.

Debt to Assets: Total liabilities divided by total assets. Expressed as a percentage, this ratio looks at the percentage of your assets that are financed. Less than 100% is preferred, with 50% being a good ratio for most businesses.

10.3 Profitability Ratios

Return on Equity Ratio: Net profit before tax divided by net worth. Expressed as a percentage, this ratio measures your return on your net investment (after debts). It should normally exceed 20% for small businesses, where a higher risk dictates a higher return.

Return on Assets Ratio: Net profit before tax divided by total assets. Expressed as a percentage, this ratio looks at your overall return on investment for lenders and equity. The ratio should normally exceed 10% for small businesses.

11.0 Writing up your assumptions

Your financial plan portion of your business plan will usually lead with the summarization of what your projections are all about. This involves putting your financial assumptions down in writing and explaining what this means to your success. Use a lot of figures to support what you conclude, and refer to the financial spreads which will be attached. If it helps, separate the assumptions and show them as a table for the various years projected. The key here is to give the reader enough background to know you didn't just pull the figures out of the sky, and to share the 'scientific' method you employed. Try to stress the positive and show how you plan to overcome any negatives in the financial area.

NPC Financial Analysis System
NPC Startup Projection
Instructions for filing out this spreadsheet

This spreadsheet is for start-up businesses to use for initial projections. The input requires you to input your startup balance sheet and income statements, and output includes five years of projections, including balance sheet, cash flow statement, income statement, breakeven analysis, and ratio analysis. The format allows monthly input for year one, quarterly for years two and three, and annually for years four and five. You will move left to right in entering data on the sheets.

Before you get started, your computer may require some modifications. With Excel 97 you need to invoke an advanced feature, called ValuePak. Begin by going to Tools, selecting Add-Ins, and then Analysis Tool Pak. This should be all that is required to get your advanced formulas (dates, etc.) to work. Also, the program utilizes some Macros, and you will get a warning when you first load it. Simply select 'Invoke Macros' and proceed. You can be assured that we have not included virus or other harmful things for your computer.

Start by entering your beginning balance sheet information. Fields shown in blue are data entry fields. Do not make changes to fields shown in black, as these have formulas which when altered may affect the integrity of the data. The program will automatically balance your balance sheet, but you can make adjustments as required. On the bottom of the spreadsheet enter the number years for depreciation for fixed assets. You may have to average for all asset categories. By entering the case name and starting date on the B Balance Sheet it should automatically update the rest of the pages.

If you will have a term loan you can enter the key information on the Loan Data sheet which is next. You will receive an Amortization printout on the Pmt Schedule sheet which follows.

Next, enter key income statement data for year one. This allows you to take seasonality and start-up sales into consideration. Most data entries for expenses will automatically be shown for all months to the right. Merely enter data over these fields to correct. Enter cost of sales percentage, marketing, and tax percentage adjustments on the bottom of the page.

The cash flow statement which follows allows you to make adjusting entries for inventory increases, loan proceeds, fixed asset increases, owners draws, etc. Draws will automatically deduct from net worth, while other adjustments such as inventory increases will automatically make changes to inventory on the next balance sheet. Capital expenditures shown must be manually added to the next balance sheet in order to balance. Accounts Receivable can be provided by input at the bottom of the cash flow page, with an input for percentage (100% would indicate all of a clients sales are on credit) and days turns (30 would indicate that a client collects their receivables in 30 days). Other variables, such as interest income, loan proceeds and other cash receipts, will normally require adjustments to the following balance sheet. For example, loan proceeds would require the loan be shown on the next balance sheet, in order for your balance sheet to balance properly.

The breakeven analysis shown next does not require input, unless the shown fixed costs are not correct. You can manually make changes to the costs, which will change the breakeven as indicated.

The 1st Year Balance Sheet is next. The Excess Cash figure on the balance sheet indicates an "out of balance" situation. If the excess cash is a sizeable figure, you must find where the input may require fixing. The most typical place to find "excess" is in adjustments made to the cash flow sheet preceeding.

Input for years two through five in the sheets which follow. Years two and three will require quarterly input of sales and other variables. Typically, the projection can be updated easily using percentage variables shown at the bottom of the income statement. Increase sales by a given percent, along with cost increases. Loans shown during year one should not require any further input, and will show loan payments and depreciation of fixed assets over time. The cash flow statements will normally require input of owners draws, inventory increases, capital expenditures, and the like.

The RMA Analysis section requires you input (in Blue) the standards for the industry, provided by Robert Morris Associates. Once you input the specific variables, the program compares your figures to the industry and shows a 'common size' comparison, which uses a percentage of the standard above or below.

Any page can be printed out individually, but the most typical projection will involve printing the consolidated reports shown at the end of the workbook, including balance sheet, cash flow, income statement, ratios, breakeven analysis,

analysis, and assumptions. For cases with a loan, a printout of the Pmt Schedule is also indicated

Finally, before finishing, remember to save your file with a unique name.

The workbook you are using is a template, and should not be saved with changes, unless you intend on making them permanent. Happy projecting!

This workbook was developed by the Small Business Development Center of Northland Pioneer College. It may be shared with clients or others interested in developing better projections for their small business. There is also a separate workbook which takes three years historical data or two years plus interim, and allows a five year projection on the same basis. Any comments or suggestions for improvement may be offered to Mark Engle at 520-532-6172.

Sample Company Breakeven Analysis For Year Ending 1/31/00	
Projected Revenues	\$42,000
Fixed Costs:	
Salary Expense	\$6,000
Rent	6000
Payroll taxes	648
Travel & Enter.	600
Prof. & Acctg	600
Depreciation	2100
Insurance	360
Interest	1901
Rep & Maint.	360
Util. & Phone	1200
Office Supplies	1200
Other Taxes	0
Other Expense	0
Total Fixed Costs	\$20,969
Cost of Goods Sold Percentage	50.00%
Breakeven Sales Level	\$41,969.16

Sample Company
Cash Flow Statement
For Year Ending

	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	1/31/00	1/3
Cash Receipts														
Sales	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	41580	45
A/R Sales	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A/R Collections	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Cash Sales	3465	3465	41580	45										
Financing Income														
Interest Income	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Loan Proceeds	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tot. Cash Receipt	3465	3465	41580	45										
Cash Outflows														
Cost of Goods	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	21000	23
Oper. Expenses	1105	1105	1105	1105	1105	1105	1105	1105	1105	1105	1105	1130	13285	14
Salary expenses	554	554	554	554	554	554	554	554	554	554	554	554	6648	6
Income taxes	-87	-86	-86	-85	-84	-84	-83	-82	-82	-81	-80	-87	-1006	3
Princ. Loan pmts	257	259	261	263	265	268	270	272	275	277	279	282	3228	3
Interest Loan pmts	171	169	166	164	162	160	157	155	153	150	148	146	1901	1
Capital Increase	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Inventory Inc(Dec)	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Owners Draw	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL CASH OUTFLOWS	3749	3750	3751	3751	3752	3753	3753	3754	3755	3756	3756	3775	45056	48
NET CASH FLOW	-284	-285	-286	-286	-287	-288	-288	-289	-290	-291	-291	-310	-3476	-2
Opening Cash Bal	2000	1716	1430	1145	858	571	283	-5	-294	-584	-875	-1166	2000	-1
Cash Receipts	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	41580	45
Cash Outflows	3749	3750	3751	3751	3752	3753	3753	3754	3755	3756	3756	3775	45056	48
Ending Cash Bal.	1716	1430	1145	858	571	283	-5	-294	-584	-875	-1166	-1476	-1476	-4

**Sample Company
Income Statement
For Year Ending**

	Feb-99	Mar-99	Apr-99	May-99	Jun-99	Jul-99	Aug-99	Sep-99	Oct-99	Nov-99	Dec-99	Jan-00	1/31/00
Gross Sales	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	3500	42000
Less: Ret & Allow	35	35	35	35	35	35	35	35	35	35	35	35	4200
Net Sales	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	3465	41580
Cost of Goods	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	21000
GROSS PROFIT	1715	1715	1715	1715	1715	1715	1715	1715	1715	1715	1715	1715	20580
G & A Expenses													
Salary Expense	500	500	500	500	500	500	500	500	500	500	500	500	6000
Rent	500	500	500	500	500	500	500	500	500	500	500	500	6000
Payroll taxes	54	54	54	54	54	54	54	54	54	54	54	54	648
Travel & Enter.	50	50	50	50	50	50	50	50	50	50	50	50	600
Prof. & Acctg.	50	50	50	50	50	50	50	50	50	50	50	50	600
Depreciation Exp.	175	175	175	175	175	175	175	175	175	175	175	175	2100
Insurance Exp.	30	30	30	30	30	30	30	30	30	30	30	30	360
Interest	171	169	166	164	162	160	157	155	153	150	148	146	1901
Rep & Maint.	30	30	30	30	30	30	30	30	30	30	30	30	360
Util. & Phone	100	100	100	100	100	100	100	100	100	100	100	100	1200
Office Supplies	100	100	100	100	100	100	100	100	100	100	100	100	1200
Other Taxes	0	0	0	0	0	0	0	0	0	0	0	0	0
Marketing	245	245	245	245	245	245	245	245	245	245	245	270	2965
Total G&A Exp.	2005	2003	2000	1998	1996	1994	1991	1989	1987	1984	1982	2005	23934
Net Income BT	-290	-288	-285	-283	-281	-279	-276	-274	-272	-269	-267	-290	-3354
Income Taxes	-87	-86	-86	-85	-84	-84	-83	-82	-82	-81	-80	-87	-1006
Net Income AT	-203	-201	-200	-198	-197	-195	-193	-192	-190	-189	-187	-203	-2348

**Sample Company
Balance Sheet
For Year Ending**

	2/1/99	1/31/00	1/31/01	1/31/02	1/31/03	1/31/04
ASSETS						
Current Assets						
Cash	2000	-1476	-4421	-6881	-8572	-9451
Inventory	20000	20000	20000	20000	20000	20000
Account Receivable	0	0	0	0	0	0
Excess Cash		0	1	1	1	2
Office Supplies	500	500	500	500	500	500
Prepaid / Deposits	750	750	750	750	750	750
Total Current Assets	23250	19774	16831	14371	12680	11800
Land						
Land	5000	5000	5000	5000	5000	5000
Buildings						
Buildings	5000	5000	5000	5000	5000	5000
Equipment						
Equipment	500	500	500	500	500	500
Other Fixed Assets						
Other Fixed Assets	5000	5000	5000	5000	5000	5000
Accum Depreciation						
Accum Depreciation	0	-2100	-4200	-6300	-8400	-10500
Total Net Fixed Assets	15500	13400	11300	9200	7100	5000
Total Assets	38750	33174	28131	23571	19780	16800
LIABILITIES						
Current Liabilities						
CPLTD	3228	3575	3959	4384	5238	0
Trade Payable	0	0	0	0	0	0
Accrued Salary	0	0	0	0	0	0
Taxes Payable	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total Current Liabilities	3228	3575	3959	4384	5238	0
Long Term Liabilities						
Term Debt LTP	16772	13198	9239	4855	-383	0
Other	0	0	0	0	0	0
Total Long Term Liabilities	16772	13198	9239	4855	-383	0
Total Liabilities	20000	16772	13198	9239	4855	0
OWNERS EQUITY						
Capital	18750	16402	14933	14332	14925	16800
Total Owners Equity	18750	16402	14933	14332	14925	16800
Total Liabilities and Owners Equity	38750	33174	28131	23571	19780	16800

Sample Company
RMA Analysis
For Year Ending

	RMA	1/31/00	1/31/01	1/31/02	1/31/03	1/31/04
	Std. Ind.	----- Common Size (%) -----				
LIQUIDITY						
Current Ratio	1.20	461%	354%	273%	202%	#DIV/0!
Acid Test Ratio	0.80	-52%	-1.40	-1.96	-2.05	#DIV/0!
A/R Turnover days	30	0%	0%	0%	0%	0%
Inventory days	45	772%	702%	638%	580%	528%
A/P turnover days	30	0%	0%	0%	0%	0%
SOLVENCY						
Debt to Worth	1.200	85%	74%	54%	27%	0%
Debt to Assets	1.800	28%	26%	22%	14%	0%
PROFITABILITY						
Return on Equity	0.12	-170%	-117%	-50%	47%	133%
Return on Assets	0.06	-169%	-124%	-61%	71%	266%

Sample Company
Assumptions to Projections

Depreciable years for Fixed Assets	5					
Loan Amount	20000					
Interest Rate Assumption	10.25%					
Amortization in Years	5					
Payment (Principal & Interest)	\$427.41					
		Year 1	Year 2	Year 3	Year 4	Year 5
Gross Revenues	\$42,000	46200	50820	55902	61492	
Revenues Percent Increase		10%	10%	10%	10%	
General Expense Percent Increase		5%	5%	5%	5%	
COGS Percent	50%	50%	50%	50%	50%	
Marketing Expense Percent	7.0%	7.0%	7.0%	7.0%	7.0%	
Total Payroll Tax Percent	10.75%	10.75%	10.75%	10.75%	10.75%	
Returns & Allowance Percent	1.0%	1.0%	1.0%	1.0%	1.0%	
Income Tax Percent	30%	30%	30%	30%	30%	
A/R Turnover Days	0	0	0	0	0	
A/R Turnover Percentage	0%	0%	0%	0%	0%	

Sample Company Financial Ratios For Year Ending						
	2/1/99	1/31/00	1/31/01	1/31/02	1/31/03	1/31/04
LIQUIDITY						
Current Ratio	7.20	5.53	4.25	3.28	2.42	#DIV/0!
Acid Test Ratio	0.62	-0.41	-1.12	-1.57	-1.64	#DIV/0!
A/R Turnover days		0	0	0	0	0
Inventory days		348	316	287	261	237
A/P turnover days		0	0	0	0	0
SOLVENCY						
Debt to Worth	1.067	1.023	0.884	0.645	0.325	0.000
Debt to Assets	0.516	0.506	0.469	0.392	0.245	0.000
PROFITABILITY						
Return on Equity		-0.204	-0.141	-0.060	0.057	0.159
Return on Assets		-0.101	-0.075	-0.036	0.043	0.159

Payment Schedule

Sample Company

Calculated Payment:	427.41	Loan Amount:	20,000
Entered Payment:*		Years Amortization:	5
Start Table at Pmt No:	1	Interest Rate:	10.25%
*Table uses entered payment if specified		Payments per year:	12

No.	Payment Date	Beginning Balance	Interest	Principal	Ending Balance
1	01/01/99	20000	171	257	19743
2	02/01/99	19743	169	259	19485
3	03/01/99	19485	166	261	19224
4	04/01/99	19224	164	263	18960
5	05/01/99	18960	162	265	18695
6	06/01/99	18695	160	268	18427
7	07/01/99	18427	157	270	18157
8	08/01/99	18157	155	272	17885
9	09/01/99	17885	153	275	17610
10	10/01/99	17610	150	277	17333
11	11/01/99	17333	148	279	17054
12	12/01/99	17054	146	282	16772
13	01/01/00	16772	143	284	16488
14	02/01/00	16488	141	287	16202
15	03/01/00	16202	138	289	15913
16	04/01/00	15913	136	291	15621
17	05/01/00	15621	133	294	15327
18	06/01/00	15327	131	296	15031
19	07/01/00	15031	128	299	14732
20	08/01/00	14732	126	302	14430
21	09/01/00	14430	123	304	14126
22	10/01/00	14126	121	307	13819
23	11/01/00	13819	118	309	13510
24	12/01/00	13510	115	312	13198
25	01/01/01	13198	113	315	12883
26	02/01/01	12883	110	317	12566
27	03/01/01	12566	107	320	12246
28	04/01/01	12246	105	323	11923
29	05/01/01	11923	102	326	11597
30	06/01/01	11597	99	328	11269
31	07/01/01	11269	96	331	10938
32	08/01/01	10938	93	334	10604

NPC Financial Analysis System

NPC Historical Trends & Projections

Instructions for filing out this spreadsheet

This spreadsheet gathers together Income Statement, Balance Sheet and Cash Flow information for the past 3 years of actual business operations (the final of three statements can be either a year end or Interim statement). It also gives a Break Even Analysis and some information on various ratios. From this basic information the analyst can add five years of projected data; monthly for year one, quarterly for years two through three, and annually for years four and five.

Before you get started, your computer may require some modifications. With Excel 97 or 2000 you need to invoke an advanced feature, called ValuePak. Begin by going to Tools, selecting Add-Ins, and then checking Analysis Tool Pak. This should be all that's required to get your advanced formulas (dates, etc.) to work. Also, the program utilizes some Macros, and you will get a warning when you first load it. Simply select "Enable Macros" and proceed. You can be assured that we have not included a virus or other harmful things to your computer.

Begin by entering your Balance Sheet at the beginning of the first year. This is important for Cash Flow information for the first year. If you do not have a balance sheet for this period, you can leave it blank, but will not get all the output on ratios for year one as this information is needed to calculate changes in balance sheet items. Enter the name for your company over the Sample Company information, along with the new startup date. This will automatically change the dates for the subsequent sheets.

Next enter Income Statement and Balance Sheet actuals for years one through three. Note that numbers in **Blue** are direct input and numbers in black are formulas. The Cash Flow Statement is set up to be automatic.

The information from this spreadsheet will be helpful in analyzing past operations, and providing a basis for future projections.

You may substitute latest interim data for year three data. This requires some adjustments to the projection format. The year one income statement will require interim data to be spread in the appropriate months, often accomplished by dividing the data by the number of months. The balance of the year then can be estimated for the remaining months. Also, the date field for projection year one will have to be changed manually. This will automatically update the balance of the date fields in the projection.

For the projections, on the bottom of the B Balance sheet enter the number years for depreciation for fixed assets. You may have to average for all asset categories.

If you will have a term loan you can enter the key information on the Loan Data sheet which is next. You will receive an Amortization printout on the Pmt Schedule sheet which follows.

Next, enter key income statement data for year one. This allows you to take seasonality and start-up sales into consideration. Most data entries for expenses will automatically be shown for all months to the right. Merely enter data over these fields to correct. Enter cost of sales percentage, marketing, and tax percentage adjustments on the bottom of the page.

The cash flow statement which follows allows you to make adjusting entries for inventory increases, loan proceeds, fixed asset increases, owners draws, etc. Draws will automatically deduct from net worth, while other adjustments such as inventory increases will automatically make changes to inventory on the next balance sheet. Capital expenditures shown must be manually added to the next balance sheet in order to balance. Accounts Receivable can be provided by input at the bottom of the cash flow page, with an input for percentage (100% would indicate all of a clients sales are on credit) and days turns (30 would indicate that a client collects their receivables in 30 days). Other variables, such as interest income, loan proceeds and other cash receipts, will normally require adjustments to the following balance sheet. For example, loan proceeds would require the loan be shown on the next balance sheet, in order for your balance sheet to balance properly.

The breakeven analysis shown next does not require input, unless the shown fixed costs are not correct. You can manually make changes to the costs, which will change the breakeven as indicated.

The 1st Year Balance Sheet is next. The Excess Cash figure on the balance sheet indicates an "out of balance" situation. If the excess cash is a sizeable figure, you must find where the input may require fixing. The most typical place to find "excess" is in adjustments made to the cash flow sheet preceding.

Input for years two through five in the sheets which follow. Years two and three will require quarterly input of sales and other variables. Typically, the projection can be updated easily using percentage variables shown at the bottom of the income statement. Increase sales by a given percent, along with cost increases. Loans shown during year one should not require any further input, and will show loan payments and depreciation of fixed assets over time. The cash flow statements will normally require input of owners draws, inventory increases, capital expenditures, and the like.

The RMA Analysis section requires you input (in Blue) the standards for the industry, provided

by Robert Morris Associates. Once you input the specific variables, the program compares your figures to the industry and shows a 'common size' comparison, which uses a percentage of the standard above or below.

Any page can be printed out individually, but the most typical analysis will involve printing the consolidated historical and projected reports shown after the historical input and at the end of the workbook, including balance sheet, cash flow, income statement, ratios, breakeven analysis, and assumptions. For cases with a loan, a printout of the Pmt Schedule is also indicated

Finally, before finishing, remember to save your file with a unique name. The workbook you are using is a template, and should not be saved with changes, unless you intend on making them permanent. Happy projecting!

This workbook was developed by the Small Business Development Center of Northland Pioneer College. It may be shared with clients or others interested in developing better projections for their small business. There is also a separate workbook which takes three years historical data or two years plus interim, and allows a five year projection on the same basis. Any comments or suggestions for improvement may be offered to Mark Engle at 520-532-6172.

**Sample Company
Cash Flow Statement
For Years Ending**

	<u>04/30/97</u>	<u>04/30/98</u>	<u>04/30/99</u>
Cash Receipts			
Sales	250,000	300,000	350,000
A/P Increases (Decreases)	1,000	500	500
A/R Decreases (Increases)	500	500	500
Total Cash Sales	<u>252,000</u>	<u>301,500</u>	<u>350,000</u>
Financing Income			
Interest Income	500	500	500
Loan Proceeds	500	500	500
Other	500	500	500
Tot. Cash Receipt	<u>253,500</u>	<u>303,000</u>	<u>351,500</u>
Cash Outflows			
Cost of Goods	100,000	100,000	125,000
Oper. Expenses	25,000	23,500	18,200
Income taxes	30,000	20,000	35,000
Salary expenses	28,000	33,000	38,000
Princ. Loan pmts	500	5,000	5,000
Interest Loan pmts	1,000	1,000	1,000
Capital Increase	500	1,000	1,000
Inventory Increase	200	5,000	2,000
Owners Draw	500	1,000	1,000
Total Cash Outflows	<u>185,700</u>	<u>189,500</u>	<u>226,200</u>
Net Cash Flow	<u>67,800</u>	<u>113,500</u>	<u>125,300</u>
Opening Cash Bal	1,000	2,000	3,000
Cash Receipts	253,500	303,000	351,500
Cash Outflows	185,700	189,500	226,200
Ending Cash Bal	<u>68,800</u>	<u>115,500</u>	<u>128,300</u>

**Sample Company
Income Statement
For Years Ending**

	04/30/97	04/30/98	04/30/99
Gross Sales	250,000	300,000	350,000
Less: Ret & Allow	-	-	-
Net Sales	<u>250,000</u>	<u>300,000</u>	<u>350,000</u>
Cost of Goods	<u>100,000</u>	<u>100,000</u>	<u>125,000</u>
GROSS PROFIT	150,000	200,000	225,000
G & A Expenses			
Salary Expense	25,000	30,000	35,000
Rent	12,000	12,000	1,200
Payroll taxes	3,000	3,000	3,000
Travel & Enter.	1,000	1,000	1,500
Prof. & Acctg.	1,000	1,000	1,500
Depreciation Exp.	2,000	2,000	3,000
Insurance Exp.	2,000	2,000	2,000
Interest	1,000	1,000	1,000
Rep & Maint.	4,000	1,000	3,000
Util. & Phone	2,500	4,000	5,000
Office Supplies	500	500	1,000
Property taxes	-	-	-
Marketing	2,000	2,000	3,000
Other Expense	-	-	-
Total G&A Exp.	<u>56,000</u>	<u>59,500</u>	<u>60,200</u>
Net Income	<u>94,000</u>	<u>140,500</u>	<u>164,800</u>
Income Taxes	<u>30,000</u>	<u>20,000</u>	<u>35,000</u>
Net Income AT	<u><u>64,000</u></u>	<u><u>120,500</u></u>	<u><u>129,800</u></u>

Sample Company
Balance Sheet
For Years Ending

ASSETS	04/30/97	04/30/98	04/30/99
Current Assets			
Cash	1,000	2,000	3,000
Inventory	10,000	10,000	10,000
Accounts Receivable	3,000	3,000	1,000
Excess Cash	-	-	-
Office Supplies	500	500	500
Prepaid / Deposits	500	500	500
Total Current Assets	15,000	16,000	15,000
Land	10,000	10,000	10,000
Buildings	80,000	80,000	90,000
Equipment	275,000	275,000	375,000
Other Assets	-	-	-
Accum Dep PP&E	(225,000)	(250,000)	(250,000)
Total Net Fixed Assets	140,000	115,000	225,000
Total Assets	155,000	131,000	240,000
LIABILITIES			
Current Liabilities			
CPLTD	5,000	5,000	5,000
Acct Payable	1,000	2,000	2,000
Accrued Salary	1,000	1,000	1,000
Taxes Payable	1,000	1,000	1,000
Accrued expenses	1,000	1,000	1,000
Total Current Liabilities	9,000	10,000	10,000
Long Term Liabilities			
Term Debt LTP	20,000	15,000	10,000
Other	-	-	-
Total Long Term Liabilities	20,000	15,000	10,000
Total Liabilities	29,000	25,000	20,000
OWNERS EQUITY			
Common Stock	20,000	20,000	20,000
Retained Earnings	106,000	86,000	200,000
Total Owners Equity	126,000	106,000	220,000
Total Liabilities and Owners Equity	155,000	131,000	240,000

**Sample Company
Break Even Analysis
For Years Ending**

	04/30/97	04/30/98	04/30/99
Revenues	\$250,000	\$300,000	\$350,000
Fixed Costs:			
Salary Expense	\$25,000	\$30,000	\$35,000
Rent	12000	12,000	1,200
Payroll taxes	3000	3,000	3,000
Travel & Enter.	1000	1,000	1,500
Prof. & Acctg	1000	1,000	1,500
Depreciation	2000	2,000	3,000
Insurance	2000	2,000	2,000
Interest	1000	1,000	1,000
Rep & Maint.	4000	1,000	3,000
Util. & Phone	2500	4,000	5,000
Office Supplies	500	500	1,000
Property taxes	0	0	0
Other Expense	0	0	0
Total Fixed Costs	<u>\$54,000</u>	<u>\$57,500</u>	<u>\$57,200</u>
Cost of Goods Sold Percentage	<u>40.00%</u>	<u>33.33%</u>	<u>35.71%</u>
Breakeven Sales Level	<u>\$154,000</u>	<u>\$157,500</u>	<u>\$182,200</u>

**Sample Company
Financial Ratios
For Years Ending**

	<u>4/30/97</u>	<u>4/30/98</u>	<u>4/30/99</u>
LIQUIDITY			
Current Ratio	1.60	1.50	1.25
Acid Test Ratio	0.50	0.40	0.60
A/R Turnover days	4	1	3
Inventory days	37	37	35
A/P turnover days	7	7	35
SOLVENCY			
Debt to Worth	0.236	0.091	0.128
Debt to Assets	0.191	0.083	0.114
PROFITABILITY			
Return on Equity	0.887	0.639	0.845
Return on Assets	0.718	0.585	0.749