# BUDGETING FOR THE SMALL BUSINESS

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Financial Management Series

Budgeting for the Small Business replaces Budgeting in a Small Service Firm and Basic Budgets for Profit Planning

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#### INTRODUCTION TO BUDGETING

Constance Pinney, CPA

### What Is a Budget?

Although you might not know it, you prepare a budget each time you estimate how much cash you will have left at the end of the month after paying your bills.

A budget is a forecast of all cash sources and cash expenditures. It is organized in the same format as a financial statement, and most commonly covers a 12-month period. At the end of the year, the anticipated income and expenses developed in the budget are compared to the actual performance of the business as recorded in the financial statement.

## Why Create a Budget?

A budget can greatly enhance your chances of success by helping you estimate future needs and plan profits, spending and overall cash flow. A budget allows you to perceive problems before they occur and alter your plans to prevent those problems.

This publication covers the basic concepts of budgeting and takes you through the step-by-step process of constructing a budget.

## **How to Use a Budget**

In business, budgets help you determine how much money you have and how you will use it, and help you decide whether you have enough money to achieve your financial goals. As part of a business plan, a budget can help convince a loan officer that you know your business and have anticipated its needs.

#### A budget will indicate

The cash required for necessary labor and/or materials.

- Total start-up costs.
- Day-to-day maintenance costs.
- Revenues needed to support business operations.
- Expected profit.

If your budget indicates that you need more revenue than you can earn, adjust your plans by

- Reducing expenditures (e.g., hiring fewer employees, purchasing less expensive furniture, eliminating a telephone line).
- Expanding sales (e.g., selling additional products or services, conducting an aggressive marketing campaign).
- Lowering profit expectations (usually the least desirable option).

Every business should create a budget before investing money in new equipment or other assets and before signing leases. To ensure your goals can be reached, first put all the numbers down on paper so you can adjust and rework them as many times as necessary. Mistakes are far less costly when made on paper than with actual dollars.

## **Basic Budgeting Concepts**

The three main elements of a budget are

- Sales revenue
- Total costs
- Profit

#### Sales Revenue

Sales are the cornerstone of a budget. It is crucial to estimate anticipated sales as accurately as possible. Base estimates on actual past sales figures. Once you target sales, you can calculate the related expenses necessary to achieve your goals.

# **Total Costs**

Total costs include fixed and variable costs. Estimating costs is complicated because you must identify which costs will change and by how much and which costs will remain unchanged. You also must consider inflation and rising prices when applicable.

#### Variable Costs

Variable costs are those that vary directly with sales. One example is the purchase cost of inventory. The more inventory you sell, the higher your purchasing costs; the less you sell, the lower your purchasing costs. Similarly, freight and special packaging costs will vary directly with sales; these costs will not be incurred without a sale.

For example, a store owner pays \$350,000 for supplies and sells them for \$500,000. To calculate the cost of inventory purchases as a percentage of sales, the owner divides the amount paid by the amount received in sales (350,000 500,000 = 70 percent). This means 70 percent of sales will go to pay for the cost of inventory. If the store owner estimates \$600,000 in sales for the next year, he or she should budget 70 percent of \$600,000, or \$420,000, for inventory purchases.

#### Fixed Costs

Fixed costs are those that do not change, regardless of sales volume. Rent is considered a fixed cost because it is totally independent of sales activity and, for the duration of the lease, will not change. For example, a five-year lease with an annual rent of \$24,000 must be paid even if there are no sales. It doesn't matter whether sales are high or low; the rent is still \$24,000.

#### Semivariable Costs

Semivariable costs, such as salaries, wages and telephone expenses, have both variable and fixed components. For budgeting purposes, you may need to break semivariable costs into these two components. The fixed element represents the minimum cost of supplying a good or service. The variable element is that portion of the cost influenced by changes in activity. Examples of semivariable costs are the rental of delivery trucks and photocopying machines for a fixed cost per month plus a variable cost based on the volume of usage.

## Inflation and Other Adjustments

A budget will be as good as the numbers used to make it. Therefore, it is important that your estimates and calculations be as accurate as possible.

#### **Profit**

Profit should be large enough to make a return on cash investment and a return on your work. Your investment is the money you put into the firm when you started it and the profit of prior years that you have left in the firm (retained earnings). If you can receive 10 percent interest on \$25,000 by investing outside of your business, then you should expect a similar return when investing \$25,000 in equipment and other assets within the business. When preparing your budget, add the expected return on investment to your targeted profits. Check with your trade association, accountant or banker to make sure that the rate of return on your investment is what it should be.

In targeting profits, you want to be sure you are receiving a fair return on your labor; your weekly paycheck should reflect what you could be earning elsewhere as an employee.

# **Basic Budget Equation**

$$Sales = total cost + profit$$

This equation shows that every sales dollar you receive is made up partly of a recovery of your costs and partly of profit.

Another way to express the basic budgeting equation is

Sales - total 
$$cost = profit$$

This equation shows that after reimbursing yourself for the cost of producing the product or service, the remaining part of the sales dollar is profit. For example, if you expect \$1,000 in sales income and you know that it costs \$750 to produce, market and sell your product or service, your profit will be \$250.

#### Realistic Estimates

In calculating an operating budget, you will often make estimates based on past sales and cost figures. You will need to adjust these figures to reflect price increases, inflation and other changing factors.

For example, for the past three years, a store owner spent an average of \$3,500 for advertising costs. For the coming year, the owner expects a price increase of 3 percent (.03). To calculate next year's advertising costs, the owner multiplies the average annual advertising costs by the percentage price increase (3,500 = 105) and adds that amount to the original, annual cost, (3,500 + 105 = 3,605). A shortcut method is to multiply the original advertising cost by one plus the rate of increase (3,500 + 105 = 3,605).

If your business is a new venture and has no past financial records, rely on your own experience and knowledge of the industry to estimate demand for and costs of your product. You may need to enlist the assistance of a professional accountant or business consultant. If your budget is to be helpful, you must use realistic estimates.

#### **The Budgeting Process**

Before you can create a budget, you must answer three questions:

- How much net profit do you want the business to generate during the calendar year?
- How much will it cost to produce that profit?
- How much sales revenue is necessary to support both profit and costs?

To answer the above questions, consider expected sales and all costs, either direct or indirect,

associated with the product or service. To make the safest estimates when budgeting, most companies prefer to overestimate expenses; conversely, they prefer to underestimate sales revenue.

## Constructing a Budget

Start with either a forecast of sales or a forecast of profits. For practical purposes, most small businesses start with a forecast of profits. In other words, decide what profit you want to make and then list the expenses you will incur to make that profit. To create a budget

- Target desired profit.
- Determine operating expenses.
- Calculate gross profit margin.
- Estimate sales revenues.
- Adjust figures.

A sample budget for the A&A Pool Supply Company illustrates the main steps in budget preparation. As you follow the steps, calculate all the figures yourself. Once you have calculated projected sales, expenses and profit, organize the figures into the format of an income statement as shown in Tables 1, 2 and 3. Refer to Table 1 for A&A Pool Supply Company's income statements for the past three years.

Step 1: Target desired profit. During the three-year period, the company averaged an annual net profit of \$63,100. During Year 2, the company had its highest net profit of \$65,000. In Year 3, sales were up, but net profit declined. For the coming year (Year 4), the company is targeting a net profit of \$65,000.

Step 2: Determine operating expenses. A&A Pool Supply estimates it will have many additional expenditures in Year 4. It will award a 5 percent wage increase to its two employees and purchase a more comprehensive medical insurance package for them at an additional annual cost of \$2,400. The company also plans to install additional telephone services at a cost of \$1,500.

Histo			_	ply Company ts For Years	1, 2, and	d 3
Sales	Year 1 \$490,000	Year 2 \$508,333	Year 3 \$513,233	Total \$1,511,566	Aver- age	
Cost of goods sold	\$343,000	\$355,833	\$359 <b>,</b> 263	\$1,058,096	\$352 <b>,</b> 698	70%

Gross profit margin	\$147,000	\$152,500	\$153,970	\$453 <b>,</b> 470	\$151 <b>,</b> 157	30%
Operatino	g expenses	:				
Advert- ising	\$3,200	\$3 <b>,</b> 700	\$3 <b>,</b> 600	\$10,500	\$3,500	0.7%
Depre- ciation	\$4,000	\$4,000	\$4,000	\$12,000	\$4,000	0.8%
Insur- ance	\$1,700	\$1,700	\$1,700	\$5,100	\$1 <b>,</b> 700	0.3%
Legal & accounting expenses		\$3,605	\$3,800	\$10 <b>,</b> 805	\$3 <b>,</b> 602	0.7%
Office expenses	\$2,200	\$2,400	\$2 <b>,</b> 650	\$7 <b>,</b> 250	\$2 <b>,</b> 417	0.5%
Rent	\$24,000	\$24,000	\$24,000	\$72 <b>,</b> 000	\$24,000	4.8%
Repair & maint-						
enance	\$300	\$550	\$420	\$1 <b>,</b> 270	\$424	0.1%
Salaries	\$33,000	\$33,000	\$33,000	\$99,000	\$33,000	6.6%
Telephone	e &					
ties	\$6,000	\$6,350	\$6,200	\$18,550	\$6,183	1.2%
Miscel- laneous	\$9,200	\$8,195	\$10,300	\$27 <b>,</b> 695	\$9,231	1.8%
Total operating expenses		\$87,500	\$89,670	\$264,170	\$88,057	17.5%
Net profit	\$60,000	\$65,000	\$64,300	\$199,330	\$63,100	12.5%

In addition, the company's accountant has advised it to plan on a 3 percent overall inflation rate next year. Taking these factors into consideration, A&A Pool Supply Company figures its expenses as shown in the preliminary budget (Table 2).

Under fixed costs, the company estimates that

- Rent will remain unchanged at \$24,000 per year.

- Depreciation will remain unchanged at \$4,000 per year.
- Salaries will be raised by 5 percent (.05). Salary raises are calculated by multiplying prior salary expenses (\$33,000) by 1.05, equaling budgeted salaries of \$34,650.
- The annual insurance expense of \$1,700 will be increased by \$2,400 to provide for additional medical coverage, so will now be budgeted at \$4,100.

Table 2 -- A&A Pool Supply Company Preliminary Budget, Year 4

•		
	Amount (\$)	Percent of sales
Sales Cost of goods sold Gross profit margin	533,730 373,611 160,119	100% 70% 30%
Operating expenses		
Advertising Depreciation Insurance Legal and accounting expenses Office expenses Rent Repair and maintenance Salaries Telephone and utilities Miscellaneous Total operating expenses	3,605 4,000 4,100 4,142 2,995 24,000 437 34,650 7,683 9,507 95,119	0.7% 0.8% 0.8% 0.8% 0.6% 4.5% 0.1% 6.5% 1.4% 1.8% 1.8%
Net profit	65 <b>,</b> 000	12.2%

The company calculates variable costs as follows:

- Telephone and utilities expenses will be budgeted for \$7,683. This figure includes average annual cost of \$6,183 plus the \$1,500 expected increase. (Average annual cost is used because the amount fluctuated over the three years.)
- Advertising, repair and maintenance, and miscellaneous expenses also fluctuate annually. These figures are computed by multiplying the three-year average amount (\$3,500) by the 3 percent inflation factor (3500.03 = 105) and adding the amount of increase to the three-year average amount (105 + 3,500 = 3,605) (or, using the shortcut explained above, multiplying 3,500 by 1.03).
- Due to company growth, office expenses increased 10 percent each year. To

compute office expenses for the budget, the company adds the 10 percent growth factor to the 3 percent inflation rate (total increase equals 13 percent) and multiplies one plus this growth factor (1.13) by the most recent office expenses in Year 3, \$2,650. Budgeted office expenses are then estimated at \$2,995 (2,650 1.13 = 2,995).

Legal and accounting expenses increased 6 percent each year. To compute legal and accounting expenses for the budget, the company adds a 6 percent growth factor to the 3 percent inflation rate (totaling 9 percent) and multiplies one plus this rate (1.09) by legal and accounting expenses in Year 3, \$3,800. Legal and accounting expense are then budgeted for \$4,142 (3,800 = 4,142).

Estimated office, legal and accounting expenses show an expected 3 percent inflation increase. As these expenses are steadily rising, the highest and most recent figures are used to compute budget figures.

Step 3: Calculate gross profit margin. Gross profit margin is the sum of net profit and total operating expenses, computed by working the preliminary budget backwards. A&A Pool Supply Company's gross profit margin is obtained by adding net profit of \$65,000 to operating expenses of \$95,119, equaling \$160,119.

Step 4: Estimate sales revenue. To target sales, the gross profit margin should be analyzed. Income statements in Table 1 show that A&A Pool Supply Company has experienced a gross profit margin equal to 30 percent of sales for three continuous years. Since a gross profit margin of \$160,119 is expected to equal 30 percent of net sales, then targeted net sales should equal \$533,730 (160,119 .3 = 533,730).

Step 5: Adjust figures. If the preliminary figure for targeted net sales seems realistic, the budget is complete. If generating the amount of targeted net sales will be a problem, the preliminary budget must be reviewed and adjusted. A&A Pool Supply Company is uncomfortable with the preliminary results; it does not believe it can realistically generate sales of more than \$525,000. To derive a more realistic budget, it decides to

- Delay installing additional telephone services to reduce telephone expenses by \$1,000. The new figure is \$6,683.
- Carefully monitor expenses to reduce miscellaneous expenses by \$1,000. The new figure is \$8,507.
- Choose a similar but less expensive employee benefit package with a higher employee deductible for medical insurance to reduce benefits expenses by \$1,200.
   The new figure is \$2,900.

After making the above adjustments to its budget (reflected in Table 3), the company's new gross profit margin is \$156,919 (65,000 + 91,919). To compute the targeted sales, the company divides the gross profit margin by 30 percent for a targeted sales of \$523,063. This figure is within the

company's limit of \$525,000.

With careful planning and monitoring, A&A Pool Supply Company can achieve its targeted profit of \$65,000.

# Budgeting as An Ongoing Process

The annual budget may have to be altered during the year to reflect changing circumstances. There may be a sharp rise or drop in one or more variable expenses or in revenues. Often, annual budgets are divided into smaller monthly or quarterly budgets. Monthly budgets are used to measure actual results against budgeted goals.

# **The Master Budget**

For companies with several departments or work functions, the annual budget should be expanded into a master budget. A master budget consists of a group of separate but interconnected budgets. A company with several departments will have separate sales, production, inventory, marketing and personnel budgets for each department. These budgets will depend on and contribute to the company's overall plans. For example, sales projections must take into account inventory levels. Inventory planning must be coordinated with the production department. In order to add employees during peak production periods, the production department must depend on the personnel department.

Table 3 A & Final B	A Pool Supply ( udget, Year 4	Company
	Amount (\$)	Percent of sales
Sales Cost of goods Gross profit margin	523,063 366,144 156,919	100% 70% 30%
Operating expenses:		
Advertising Depreciation Insurance Legal and accounting expenses Office expenses Rent Repair & maintenance Salaries Telephone and utilities Miscellaneous Total operating expenses	3,605 4,000 2,900 4,142 2,995 24,000 437 34,650 6,683 8,507 91,919	0.7% 0.8% 0.6% 0.8% 0.6% 4.6% 0.1% 6.6% 1.3% 1.6% 17.6%
Net profit	65,000	12.4%

# **Summary**

A budget is an indispensable tool for converting plans into a successful reality. The budget helps focus your thoughts on the direction in which you are headed. It indicates how much cash you have to spend, your expenses and how much you need to earn. By planning on paper first, you minimize the risks associated with your business endeavor. A good budget can build morale by helping you organize, communicate and motivate employees to do their part in achieving the company's financial goals.

#### BASIC BUDGETS FOR PROFIT PLANNING -- Charles J. Woelful

Budgeting requires you to consider your basic objectives, policies, plans and resources.

- It requires you and your key employees to undertake a coordinated, comprehensive and informed effort to achieve common objectives.
- It helps you to ensure that proper controls and evaluation procedures are established throughout your company.
- It encourages and motivates everyone concerned to put forth a reasonable effort.
- It provides a plan so that all of you know where you are going, as well as why, how, when and with whom.

In short, the budgeting process is a valuable tool in planning, income and expense.

You can prepare a budget to cover practically any time period. Usually, a one-year budget is developed. In most cases, it is projected on a quarterly basis, with each quarter detailed in months (sometimes weeks). It is also possible to prepare budgets for two, three and five years. Anything beyond five years generally is impractical.

The following simplified examples give you an idea of the various interrelations developed in the budgeting process. (These figures are relative to one given set of values. Of course, different volumes of business would determine different costs and thus affect the realizable profits.) Using these concepts as a framework, you and your staff can set up your own comprehensive profit-planning budget.

A comprehensive budget picture begins with the sales budget. Other budgets are related directly or indirectly to this budget. Table 4 is a sales forecast in units.

Table 4
Sales budget in units for the year ended December 31, 19

Territory	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
East	26,000	5,000	6,000	7,000	8,000
West	11,000	2,000	2,500	3,000	3,500
Total	37,000	7,000	8,500	10,000	11,500

Assume you sell a single product with a sales price of \$10. Your sales budget in terms of dollars would look like Table 5.

Table 5
Sales budget in dollars for the year ended December 31,19

Territory	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
East	260,000	50,000	60,000	70,000	80,000
West	110,000	20,000	25,000	30,000	35,000
Total	370,000	70,000	85,000	100,000	115,000

Say the estimated per unit cost of the project is \$1.50 for direct material, \$2.50 for direct labor and \$1.00 for manufacturing overhead. Table 6 reflects applying unit costs to the sales budget in units.

Table 6
Cost of goods sold budget for the year ended December 31, 19\_\_

	J				,
Dinast	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Direct material	55,500	10,500	12,750	15,000	17,250
Direct labor	92 <b>,</b> 500	17,500	21,250	25 <b>,</b> 000	28 <b>,</b> 750
Manufactu overhead	aring 37,000	7,000	8,500	10,000	11,500
Total	185,000	35,000	42,500	50,000	57 <b>,</b> 500
labor Manufactu overhead	92,500 uring 37,000	17 <b>,</b> 500	21,250 8,500	25,000	28 <b>,</b> 11 <b>,</b>

Later, before a cash budget can be compiled, you must know the estimated cash requirements for selling expenses. Therefore, you prepare a budget for selling expenses and another for cash expenditures for selling expenses (total selling expenses less depreciation) as shown in Table 7 and 8.

Table 7
Selling expenses budget for the year ended December 31, 19

		1st	2nd	3rd	4th
	Total	Quarter	Quarter	Quarter	Quarter
Commis-					
sions	46,250	8 <b>,</b> 750	10,625	12,500	14 <b>,</b> 375
Rent	7,000	1 <b>,</b> 750	1 <b>,</b> 750	1 <b>,</b> 750	1,750
Advertisir	ng 9,250	1 <b>,</b> 750	2 <b>,</b> 125	2 <b>,</b> 500	2 <b>,</b> 875
Telephone	4,600	875	1,062	1,250	1,413
Depreciati	Lon				
office	900	225	225	225	225
Other	22,000	4,150	5 <b>,</b> 088	6 <b>,</b> 025	6 <b>,</b> 737
Total	90,000	17,500	20 <b>,</b> 875	24,25	27 <b>,</b> 375

Table 8
Selling expenses budget cash requirements for the year ended
December 31, 19

	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Total selling expenses less deprec-					
iation	90,000	17,500	20,875	24,250	27 <b>,</b> 375
Office expense	900	225	225	225	225
Cash require- ments	89,100	17,275	20,650	24,025	27,150

Basic information for an estimate of administrative expenses for the coming year is easily compiled. Again, from that budget you can estimate cash requirements for those expenses to be used subsequently in preparing the cash budget (see Tables 9 and 10).

Table 9
Administrative expenses budget for the year ended December 31, 19\_\_\_\_

1st 2nd 3rd 4th
Total Quarter Quarter Quarter Quarter

Salaries Insurance Telephone Supplies	22,200 1,850 1,850 3,700	4,200 350 350 700	5,100 425 425 850	6,000 500 500 1,000	6,900 575 575 1,150
Bad debt expense	3 <b>,</b> 700	700	850	1,000	1,150
Other expenses Total	3,700 37,000	700 7 <b>,</b> 000	850 8 <b>,</b> 500	1,000 10,000	1,150 11,500

Table 10
Administrative expenses budget-cash requirements for the year ended December 31, 19\_\_\_

	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Estimated adminis-trative expenses	37,000	7,000	8 <b>,</b> 500	10,000	11,500
Less bad debt expenses	3 <b>,</b> 700	700	850	1,000	1,150
Cash require- ments	33,300	6,500	7 <b>,</b> 650	9,000	10,350

Now, from the information gathered so far, you can proceed to prepare the budget income statement. Assume you plan to borrow \$10,000 at the end of the first quarter. Although payable at maturity of the note, the interest appears in the last three quarters of the year. The statement will resemble Table 11.

Table 11 Budgeted income statement for the year ended December 31 19					
	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Sales	370000	70000	85000	100000	115000
Cost of goods sol	d 185000	35000	42500	50000	57500

Gross margin	555000	105000	127500	150000	172500
Operating 6	expenses				
Selling Administr-	90000	17500	20875	24250	27375
ative	37000	7000	8500	10000	11500
Total	127000	24500	29375	34250	38875
Net income	from				
Operations	58000	10500	13125	15750	18625
Interest expense	450		150	150	150
Net income	before				
Income taxes	57550	10500	12975	15600	18475
Federal income tax (25%					
average)	14388	2625	3244	3900	4619
Net income	43162	7875	9731	11700	13856

Estimating that 90 percent of your account sales is collected in the quarter in which those sales were made, 9 percent is collected in the quarter following the quarter in which the sales were made and 1 percent is uncollectible, your accounts receivable budget of collections will look like Table 12.

Table 12
Budget of collections of accounts receivable for the year ended December 31, 19\_\_\_

	for the year ended December 31, 19				
	Total (net)	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
4th Qtr. sales 19-0	6,000	6,000			
1st Qtr. sales 19-1	69,300	63,000	6 <b>,</b> 300		
2nd Qtr. sales					

19-1	84,150		76,500	7,650	
3rd Qtr. sales	99,000			90,000	9,000
4th Qtr. sales					
19-1	103,500				103,500
Total	361,950	69,000	82,800	97 <b>,</b> 650	112,500

Going back to the sales budget in units, prepare a production budget in units. Assume you have 2,000 units in the opening inventory and want to have on hand at the end of each quarter the following quantities: first quarter, 3,000 units; second quarter, 3,500 units; third quarter, 4,000 units; and fourth quarter, 4,500 units (see Table 13).

Production	Tabl n budget in u		vear ended	
110000000		r 31, 19	, cal clicion	
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Sales requirements	7,000	8,500	10,000	11,500
Plus ending inventory requirements	3,000	3,500	4,000	4,500
Total requirements	10,000	12,000	14,000	16,000
Less beginning inventory	2,000	3,000	3 <b>,</b> 500	4,000
Production requirements	8,000	9,000	10,500	12,000

Next, based on the production budget, prepare a budget to show the purchases needed during each of the four quarters, expressed in dollars. Take the production and inventory figures and multiply them by the cost of material (previously estimated at \$1.50 per unit). You could prepare a similar budget expressed in units (see Table 14).

for the year ended December 31, 19\_\_

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Required for production	12,000	13,500	15,750	18,000
Required for ending inventory	4,500	5 <b>,</b> 250	6,000	6 <b>,</b> 750
Total	16,500	18,750	21,750	24,750
Less beginning inventory	3,000	4,500	5,250	6,000
Required purchases	13,500	14,250	16,500	18 <b>,</b> 750

Suppose you pay 50 percent of your accounts in the quarter of the purchase and 50 percent in the following quarter. Carryover payables from last year were \$5,000. Since any discounts given to you by your suppliers (net purchase discount) were figured into the \$1.50 unit cost estimate, purchase discounts do not appear in the payment budget. Thus your payment budget will come out like Table 15.

	Payment bud		e 15 year ended	December 31,	19
	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
4th Qtr. sales 19-0		\$5,000			
1st Qtr. sales 19-1	13,500	6,750	\$6 <b>,</b> 750		
2nd Qtr. sales 19-1	14,250		7,125	\$7 <b>,</b> 125	
3rd Qtr. sales 19-1	16,500			8 <b>,</b> 250	\$8 <b>,</b> 250
4th Qtr. sales 19-1	9 <b>,</b> 375				9 <b>,</b> 375

quarters \$58,625

\$11,750

\$13,875

\$15,375

\$17,625

Taking the data for quantities produced from the production budget in units, calculate the direct labor requirements on the basis of units to be produced. (The number and cost of labor hours necessary to produce a given quantity can be set forth in supplemental schedules.) (See Table 16.)

\_\_\_\_\_

Direct	labor bu	Tabl udget cash re December		or the year	ended
	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Quantity	39,500	8,000	9,000	10,500	12,000

Direct labor cost 98,750 20,000 22,500 26,250 30,000

Now outline the items that make up your factory overhead, and prepare a budget as shown in Table 17.

Table 17
Manufacturing overhead budget-cash requirements for the year ended December 31, 19

		4		· —	
	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Production units	n 39,500	8,000	9,000	10,500	12,000
Manufact- uring overhead expenses	\$39,500	\$8,000	\$9,000	\$10,500	\$12,000
Less deprec- iation	2,800	700	700	700	700
Cash require- ments	\$36,700	\$7 <b>,</b> 300	\$8,300	\$9 <b>,</b> 800	\$11,300

Figure the cash payments for manufacturing overhead by subtracting depreciation, which requires no cash outlay, from the totals above, and you will have the breakdown shown in Table 18.

	Tabl	Le 18			
Manufacturing	overhead	budget fo	or the	year	ended
	December	31, 19_	_		

	Total	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Heat and power	10,000	1,000	2,500	3,000	3,500
Factory supplies	5,300	1,000	1,500	1,800	1,000
Property taxes	2,000	500	500	500	500
Deprec- iation	2,800	700	700	700	700
Rent	8,000	2,000	2,000	2,000	2,000
Superint- endent	11,400	2,800	1,800	2,500	4,300
Total	39,500	8,000	9,000	10,500	12,000

Now comes the all-important cash budget. Put it together by using the collection of accounts receivable budget, selling expenses budget-cash requirements, administrative expenses budget cash requirements, payment of purchases budget, direct labor budget cash requirements, and manufacturing budget cash requirements. Take \$15,000 as the beginning balance and assume that dividends of \$20,000 are to be paid in the fourth quarter (see Table 19).

\_\_\_\_\_

Table 19 Cash budget for the year ended December 31 19 2nd 4th 1st 3rd Total Quarter Quarter Quarter Quarter Beginning cash balance 15000 15000 16987 26812 40012 Cash collect-361950 69000 82800 97650 112500 ions

Total	376950	84000	99787	124462	152512
Cash payments purchases	58625	11750	13875	15375	17625
Direct labor	98750	20000	22500	26250	30000
Manufact- uring overhead	36700	7300	8300	9800	11300
Selling expense	89100	17275	20650	24025	27150
Adminis- trative expenses	33300	6300	7650	9000	10350
Federal income tax	14388	14388			
Dividends	20000				20000
Interest expenses	450				450
Loan repayment	10000				10000
Total	361313	77013	72975	84450	126875
Cash surplus		6987			
Bank loan received	10000	10000			
Ending cash balance	25637	16987	26812	40012	25637

Now you are ready to prepare a budget balance sheet. Take the account balances of last year and combine them with the transactions reflected in the various budgets you have compiled. You will come out with a sheet resembling Table 20.

Table 20
Budgeted balance sheet December 31, 19

budgeted barance s	sneet becembe.	1 31, 19
	19	19
Current assets		
Cash	10,000	25,637
Accounts receivable	11,500	6,666
Less allowance for doubtful accounts	(1,150)	(666)
Inventory		
Raw materials	6 <b>,</b> 750	3,000
Finished goods	22,500	10,000
Total current assets	49,600	44,637
Fixed assets		
Land	50,000	50,000
Building	148,000	148,000
Less depreciation allowance	e (37,000)	(33,000)
Total fixed assets	161,000	165,000
Total assets	210,600	209,637
Liabilities and shareholders'	equity	
Current liabilities accounts payable	9,375	5,000
Shareholders' equity		
Capital stock (10,000 shares; \$10 par value)	100,000	100,000
Retained earnings	101,225	104,637
Total liabilities and shareholders' equity	210,600	209 <b>,</b> 637

In order to make the most effective use of your budgets, you will want to establish reporting devices. These will include periodic reports and reviews on both efforts and accomplishments. It is through

comparing actual performance with budgeted projections that you maintain control of operations.

Your company should be structured along functional lines, with well-identified areas of responsibility and authority. Then, depending on the size of the company, the budget reports can be prepared to correspond with the organizational structure.

Two typical budget reports are shown in Table 21 to demonstrate various forms these reports may take.

Table 21 Report of actual and budgeted sales for the year ended December 31, 19 Variations from budget (under) Actual sale Budgeted sales Quarterly Cumulative \$ 1st quarter 2nd quarter 3rd quarter 4th quarter Table 21 Budgeted report on selling expenses for the year ended December 31, 19 |Budget | Actual |Variation| Budget | Actual |Variations| | this | this | this | this | this |month | month | month | to date | to date | Remarks i i i i +----+

#### **APPENDIX: INFORMATION RESOURCES**

## **U.S. Small Business Administration (SBA)**

The SBA offers an extensive selection of information on most business management topics, from

how to start a business to exporting your products.

This information is listed in The Small Business Directory. For a free copy contact your nearest SBA office.

SBA has offices throughout the country. Consult the U.S. Government section in your telephone directory for the office nearest you. SBA offers a number of programs and services, including training and educational programs, counseling services, financial programs and contract assistance. Ask about

- Service Corps of Retired Executives (SCORE), a national organization sponsored by SBA of over 13,000 volunteer business executives who provide free counseling, workshops and seminars to prospective and existing small business people.
- Small Business Development Centers (SBDCs), sponsored by the SBA in partnership with state and local governments, the educational community and the private sector. They provide assistance, counseling and training to prospective and existing business people.
- Small Business Institutes (SBIs), organized through SBA on more than 500 college campuses nationwide. The institutes provide counseling by students and faculty to small business clients.

For more information about SBA business development programs and services call the SBA Small Business Answer Desk at 1-800-U-ASK-SBA (827-5722).

#### Other U.S. Government Resources

Many publications on business management and other related topics are available from the Government Printing Office (GPO). GPO bookstores are located in 24 major cities and are listed in the Yellow Pages under the bookstore heading. You can request a Subject Bibliography by writing to Government Printing Office, Superintendent of Documents, Washington, DC 20402-9328.

Many federal agencies offer publications of interest to small businesses. There is a nominal fee for some, but most are free. Below is a selected list of government agencies that provide publications and other services targeted to small businesses. To get their publications, contact the regional offices listed in the telephone directory or write to the addresses below:

# **Consumer Information Center (CIC)**

P.O. Box 100 Pueblo, CO 81002

The CIC offers a consumer information catalog of federal publications.

# **Consumer Product Safety Commission (CPSC)**

**Publications Request** 

Washington, DC 20207

The CPSC offers guidelines for product safety requirements.

# **U.S. Department of Agriculture (USDA)**

12th Street and Independence Avenue, SW

Washington, DC 20250

The USDA offers publications on selling to the USDA. Publications and programs on entrepreneurship are also available through county extension offices nationwide.

# **U.S. Department of Commerce (DOC)**

Office of Business Liaison

14th Street and Constitution Avenue, NW

Room 5898C

Washington, DC 20230

DOC's Business Assistance Center provides listings of business opportunities available in the federal government. This service also will refer businesses to different programs and services in the DOC and other federal agencies.

## **U.S. Department of Health and Human Services (HHS)**

## **Public Health Service**

# Alcohol, Drug Abuse and Mental Health Administration

5600 Fishers Lane

Rockville, MD 20857

Drug Free Workplace Helpline: 1-800-843-4971.

Provides information on Employee Assistance Programs.

National Institute for Drug Abuse Hotline: 1-800-662-4357. Provides information on preventing substance abuse in the workplace.

The National Clearinghouse for Alcohol and Drug Information: 1-800-729-6686 toll-free. Provides pamphlets and resource materials on substance abuse.

## **U.S. Department of Labor (DOL)**

# **Employment Standards Administration**

200 Constitution Avenue, NW

Washington, DC 20210

The DOL offers publications on compliance with labor laws.

#### **U.S. Department of Treasury**

**Internal Revenue Service (IRS)** 

P.O. Box 25866

Richmond, VA 23260

1-800-424-3676

The IRS offers information on tax requirements for small businesses.

## **U.S. Environmental Protection Agency (EPA)**

#### **Small Business Ombudsman**

401 M Street, SW (A-149C) Washington, DC 20460 1-800-368-5888 except DC and VA 703-557-1938 in DC and VA

The EPA offers more than 100 publications designed to help small businesses understand how they can comply with EPA regulations.

# U.S. Food and Drug Administration (FDA) FDA Center for Food Safety and Applied Nutrition

200 Charles Street, SW Washington, DC 20402

The FDA offers information on packaging and labeling requirements for food and food-related products.

#### **For More Information**

A librarian can help you locate the specific information you need in reference books. Most libraries have a variety of directories, indexes and encyclopedias that cover many business topics. They also have other resources, such as

#### Trade association information

Ask the librarian to show you a directory of trade associations. Associations provide a valuable network of resources to their members through publications and services such as newsletters, conferences and seminars.

- Books -- Many guidebooks, textbooks and manuals on small business are published annually. To find the names of books not in your local library check Books In Print, a directory of books currently available from publishers.
- Magazine and newspaper articles -- Business and professional magazines provide information that is more current than that found in books and textbooks. There are a number of indexes to help you find specific articles in periodicals.

In addition to books and magazines, many libraries offer free workshops, lend skill-building tapes and have catalogues and brochures describing continuing education opportunities.