

BUDGETING FOR THE SMALL BUSINESS

Constance Pinney
Certified Public Accountant
Pinney & Company, P.C.
Tempe, Arizona

Charles J. Woelful
Professor of Accountancy
Southern Illinois University
Carbondale, Illinois

Financial Management Series

—

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

"Introduction to Budgeting", Copyright 1991, Constance Pinney. All rights reserved. No part may be reproduced, transmitted or transcribed without the permission of the author. SBA retains an irrevocable, worldwide, nonexclusive, royalty-free, unlimited license to use this copyrighted material.

While we consider the contents of this publication to be of general merit, its sponsorship by the U.S. Small Business Administration does not necessarily constitute an endorsement of the views and opinions of the authors or the products and services of the companies with which they are affiliated.

All of SBA's programs and services are extended to the public on a nondiscriminatory basis.

TABLE OF CONTENTS

INTRODUCTION TO BUDGETING - Constance Pinney, CPA

What is a Budget?
Why Create a Budget?
How to Use a Budget
Basic Budgeting Concepts
Basic Budget Equation
Realistic Estimates
The Budgeting Process
The Master Budget
Summary

BASIC BUDGETS FOR PROFIT PLANNING - Charles J. Woelfel

APPENDIX: Information Resources

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

$$\text{Sales} = \text{total cost} + \text{profit}$$

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

$$\text{Sales} - \text{total cost} = \text{profit}$$

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 ($3,500 \times .03 = 105$) 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 ($3,500 \times 1.03 = 3,605$).

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.

Table 1 -- A&A Pool Supply Company
Historical (Actual) Income Statements For Years 1, 2, and 3

| | Year 1 | Year 2 | Year 3 | Total | Average | % of sales |
|--------------------------|-----------|-----------|-----------|-------------|-----------|---------------|
| Sales | \$490,000 | \$508,333 | \$513,233 | \$1,511,566 | \$503,855 | 100% |
| Cost of goods sold | \$343,000 | \$355,833 | \$359,263 | \$1,058,096 | \$352,698 | 70% |

| | | | | | | |
|-----------------------------|-----------|-----------|-----------|-----------|-----------|-------|
| Gross profit margin | \$147,000 | \$152,500 | \$153,970 | \$453,470 | \$151,157 | 30% |
| Operating expenses: | | | | | | |
| Advertising | \$3,200 | \$3,700 | \$3,600 | \$10,500 | \$3,500 | 0.7% |
| Depreciation | \$4,000 | \$4,000 | \$4,000 | \$12,000 | \$4,000 | 0.8% |
| Insurance | \$1,700 | \$1,700 | \$1,700 | \$5,100 | \$1,700 | 0.3% |
| Legal & accounting expenses | \$3,400 | \$3,605 | \$3,800 | \$10,805 | \$3,602 | 0.7% |
| Office expenses | \$2,200 | \$2,400 | \$2,650 | \$7,250 | \$2,417 | 0.5% |
| Rent | \$24,000 | \$24,000 | \$24,000 | \$72,000 | \$24,000 | 4.8% |
| Repair & maintenance | \$300 | \$550 | \$420 | \$1,270 | \$424 | 0.1% |
| Salaries | \$33,000 | \$33,000 | \$33,000 | \$99,000 | \$33,000 | 6.6% |
| Telephone & utilities | \$6,000 | \$6,350 | \$6,200 | \$18,550 | \$6,183 | 1.2% |
| Miscellaneous | \$9,200 | \$8,195 | \$10,300 | \$27,695 | \$9,231 | 1.8% |
| Total operating expenses | \$87,000 | \$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 | 533,730 | 100% |
| Cost of goods sold | 373,611 | 70% |
| Gross profit margin | 160,119 | 30% |
| Operating expenses | | |
| Advertising | 3,605 | 0.7% |
| Depreciation | 4,000 | 0.8% |
| Insurance | 4,100 | 0.8% |
| Legal and accounting expenses | 4,142 | 0.8% |
| Office expenses | 2,995 | 0.6% |
| Rent | 24,000 | 4.5% |
| Repair and maintenance | 437 | 0.1% |
| Salaries | 34,650 | 6.5% |
| Telephone and utilities | 7,683 | 1.4% |
| Miscellaneous | 9,507 | 1.8% |
| Total operating expenses | 95,119 | 17.8% |
| Net profit | 65,000 | 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 ($3500 \times 1.03 = 3,605$) and adding the amount of increase to the three-year average amount ($3,605 + 3,500 = 7,105$) (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 ($2,650 \times 1.13 = 2,995$).
- ! 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 ($3,800 \times 1.09 = 4,142$).

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 ($160,119 \div .3 = 533,730$).

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 & A Pool Supply Company
Final Budget, Year 4

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

| | Total | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|------------------------|---------|----------------|----------------|----------------|----------------|
| Direct material | 55,500 | 10,500 | 12,750 | 15,000 | 17,250 |
| Direct labor | 92,500 | 17,500 | 21,250 | 25,000 | 28,750 |
| Manufacturing overhead | 37,000 | 7,000 | 8,500 | 10,000 | 11,500 |
| Total | 185,000 | 35,000 | 42,500 | 50,000 | 57,500 |

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__

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

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 | 27,375 |
| 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 | 22,200 | 4,200 | 5,100 | 6,000 | 6,900 |
| Insurance | 1,850 | 350 | 425 | 500 | 575 |
| Telephone | 1,850 | 350 | 425 | 500 | 575 |
| Supplies | 3,700 | 700 | 850 | 1,000 | 1,150 |
| Bad debt expense | 3,700 | 700 | 850 | 1,000 | 1,150 |
| Other expenses | 3,700 | 700 | 850 | 1,000 | 1,150 |
| Total | 37,000 | 7,000 | 8,500 | 10,000 | 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 administrative expenses | 37,000 | 7,000 | 8,500 | 10,000 | 11,500 |
| Less bad debt expenses | 3,700 | 700 | 850 | 1,000 | 1,150 |
| Cash requirements | 33,300 | 6,500 | 7,650 | 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 sold | 185000 | 35000 | 42500 | 50000 | 57500 |
| Gross margin | 555000 | 105000 | 127500 | 150000 | 172500 |
| Operating expenses | | | | | |
| Selling | 90000 | 17500 | 20875 | 24250 | 27375 |
| Administrative | 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__

| | 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 | 6,300 | | |

| | | | | | |
|---------------------------|---------|--------|--------|--------|---------|
| 2nd Qtr. sales 19-1 | 84,150 | | 76,500 | 7,650 | |
| 3rd Qtr. sales 19-1 | 99,000 | | | 90,000 | 9,000 |
| 4th Qtr. sales 19-1 | 103,500 | | | | 103,500 |
| Total | 361,950 | 69,000 | 82,800 | 97,650 | 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).

Table 13
Production budget in units for the year ended
December 31, 19__

| | 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 | 3,500 | 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).

Table 14
Budget of direct materials purchases
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 | 5,250 | 6,000 | 6,750 |
| 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 | 18,750 |

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.

Table 15
Payment budget for the year ended December 31, 19__

| | Total | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|---------------------------|---------|----------------|----------------|----------------|----------------|
| 4th Qtr. sales 19-0 | \$5,000 | \$5,000 | | | |
| 1st Qtr. sales 19-1 | 13,500 | 6,750 | \$6,750 | | |
| 2nd Qtr. sales 19-1 | 14,250 | | 7,125 | \$7,125 | |
| 3rd Qtr. sales 19-1 | 16,500 | | | 8,250 | \$8,250 |
| 4th Qtr. sales | | | | | |

| | | | | | |
|----------------------------|----------|----------|----------|----------|----------|
| 19-1 | 9,375 | | | | 9,375 |
| Payments by 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.)

Table 16
Direct labor budget cash requirements for the year ended
December 31, 19__

| | 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__

| | Total | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|--|----------|----------------|----------------|----------------|----------------|
| Production units | 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 | \$7,300 | \$8,300 | \$9,800 | \$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.

Table 18
Manufacturing overhead budget for 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 |
| Depreciation | 2,800 | 700 | 700 | 700 | 700 |
| Rent | 8,000 | 2,000 | 2,000 | 2,000 | 2,000 |
| Superintendent | 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__

| | Total | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
|------------------------|-------|----------------|----------------|----------------|----------------|
| Beginning cash balance | 15000 | 15000 | 16987 | 26812 | 40012 |
| Cash | | | | | |

| | | | | | |
|---------------------------------|--------|-------|-------|--------|--------|
| collect- ions | 361950 | 69000 | 82800 | 97650 | 112500 |
| Total | 376950 | 84000 | 99787 | 124462 | 152512 |
| Cash payments purchases | 58625 | 11750 | 13875 | 15375 | 17625 |
| Direct labor | 98750 | 20000 | 22500 | 26250 | 30000 |
| Manufac- turing 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__

| | 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 | 6,750 | 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 (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 | 209,637 |

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.

| | Actual sale | Budgeted sales | Variations from budget (under) | |
|-------------|-------------|----------------|--------------------------------|------------|
| | | | Quarterly | Cumulative |
| 1st quarter | \$ | \$ | \$ | \$ |
| 2nd quarter | | | | |
| 3rd quarter | | | | |
| 4th quarter | | | | |

| Budget this month | Actual this month | Variation this month | Budget to date | Actual to date | Variations to date | this month Remarks |
|-------------------|-------------------|----------------------|----------------|----------------|--------------------|--------------------|
| | | | | | | |

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.

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

- *SCORE: Counselors to America's Small Business*, a national organization sponsored by SBA of over 11,000 volunteer business executives who provide free counseling, workshops and seminars to prospective and existing small business people. Free online counseling and training at www.score.org.
- *Small Business Development Centers (SBDCs)*, sponsored by the SBA in partnership with state governments, the educational community and the private sector. They provide assistance, counseling and training to prospective and existing business people.
- *Women's Business Centers (WBCs)*, sponsored by the SBA in partnership with local non-government organizations across the nation. Centers are geared specifically to provide training for women in finance, management, marketing, procurement and the Internet.

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) or visit our website, www.sba.gov.

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. Find a "Catalog of Government Publications" at <http://catalog.gpo.gov/F>

Many federal agencies offer Websites and 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:

Federal Citizen Information Center (FCIC)

[Http://www.pueblo.gsa.gov](http://www.pueblo.gsa.gov)

1-800-333-4636

The CIO offers a consumer information catalog of federal publications.

Consumer Product Safety Commission (CPSC)

Publications Request
Washington, DC 20207

http://www.cpsc.gov/cpsc/pub/pubs/pub_idx.html

The CPSC offers guidelines for product safety requirements.

U.S. Department of Agriculture (USDA)

12th Street and Independence Avenue, SW
Washington, DC 20250

<http://www.usda.gov>

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
Washington, DC 20230

<http://www.osec.doc.gov/obl/>

DOC's Business Liaison 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)

Substance Abuse and Mental Health Services Administration
1 Choke Cherry Road
Rockville, MD 20857

<http://www.workplace.samhsa.gov>

Helpline: 1-800-workplace. Provides information on Employee Assistance Programs Drug, Alcohol and other 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)
1500 Pennsylvania Avenue NW
Washington DC 20230

<http://www.irs.gov/business/index.html>

The IRS offers information on tax requirements for small businesses.

U.S. Environmental Protection Agency (EPA)

Small Business Ombudsman
1200 Pennsylvania Avenue NW
Washington, DC 20480

<http://epa.gov/sbo>

Hotline: 1-800-368-5888

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)

5600 Fishers Lane

Rockville MD 20857-0001

<http://www.fda.gov>

Hotline: 1-888-463-6332

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.
- **Internet Search Engines**

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