

# Chapter 24

# Budgetary Control and Responsibility Accounting

## STUDY OBJECTIVES

After studying this chapter, you should be able to:

- 1 Describe the concept of budgetary control.
- 2 Evaluate the usefulness of static budget reports.
- 3 Explain the development of flexible budgets and the usefulness of flexible budget reports.
- 4 Describe the concept of responsibility accounting.
- 5 Indicate the features of responsibility reports for cost centers.
- 6 Identify the content of responsibility reports for profit centers.
- 7 Explain the basis and formula used in evaluating performance in investment centers.



## The Navigator

Scan <b>Study Objectives</b>	■
Read <b>Feature Story</b>	■
Read <b>Preview</b>	■
Read text and answer <b>DO IT!</b>	
p. 1070 ■	p. 1072 ■
p. 1084 ■	p. 1080 ■
Work <b>Comprehensive DO IT!</b>	p. 1085 ■
Review <b>Summary of Study Objectives</b>	■
Answer <b>Self-Study Questions</b>	■
Complete <b>Assignments</b>	■

## Feature Story

### TRYING TO AVOID AN ELECTRIC SHOCK

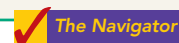
Budgets are critical to evaluating an organization's success. They are based on management's expectations of what is most likely to happen in the future. In order to be useful, they must be accurate. But what if management's expectations are wrong? Estimates are never exactly correct, and

sometimes, especially in volatile industries, estimates can be “off by a mile.”

In recent years the electric utility industry has become very volatile. Deregulation, volatile prices for natural gas, coal, and oil, changes in environmental regulations, and economic swings have all contributed to large

changes in the profitability of electric utility companies. This means that for planning and budgeting purposes, utilities must plan and budget based on multiple “what if” scenarios that take into account factors beyond management’s control. For example, in recent years, **Duke Energy Corporation** ([www.duke-energy.com](http://www.duke-energy.com)), headquartered in Charlotte, North Carolina, built budgeting and planning models based on three different scenarios of what the future might hold. One scenario assumes that the U.S. economy will slow considerably. A second scenario assumes that the company will experience “pricing pressure” as the market for energy becomes more efficient as a result of more energy being traded in Internet auctions. A third scenario assumes a continuation of the current environment of rapid growth, changing regulation, and large swings in the prices for the fuels the company uses to create energy.

Compounding this budgeting challenge is the fact that changes in many indirect costs can also significantly affect the company. For example, even a tiny change in market interest rates has a huge effect on the company because it has massive amounts of outstanding debt. And finally, as a result of the California energy crisis, there is mounting pressure for government intervention and regulation. This pressure has resulted in setting “rate caps” that limit the amount that utilities and energy companies can charge, thus lowering profits. The bottom line is that for budgeting and planning purposes, utility companies must remain alert and flexible.



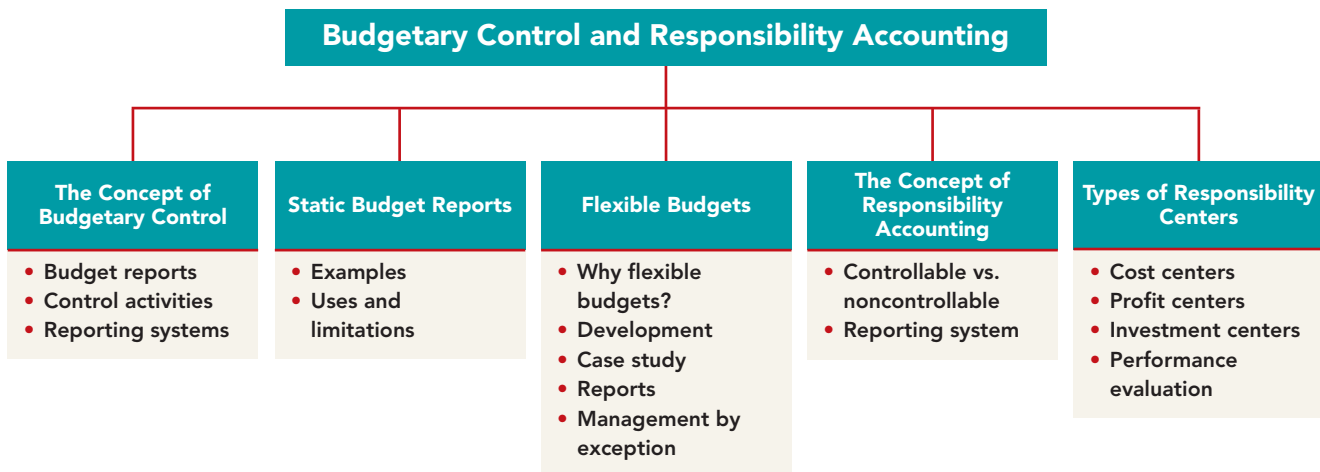
### *Inside Chapter 24...*

- **Competition versus Collaboration** (p. 1074)
- **Does Hollywood Look at ROI?** (p. 1083)

## Preview of Chapter 24

In contrast to Chapter 23, we now consider how budgets are used by management to control operations. In the Feature Story on **Duke Energy**, we saw that budgeting must take into account factors beyond management's control. This chapter focuses on two aspects of management control: (1) budgetary control and (2) responsibility accounting.

The content and organization of Chapter 24 are as follows.



## THE CONCEPT OF BUDGETARY CONTROL

### STUDY OBJECTIVE 1

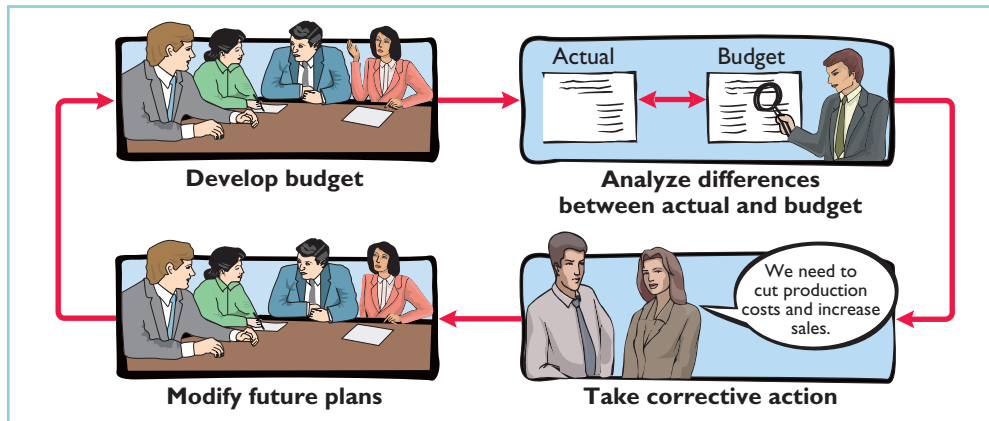
Describe the concept of budgetary control.

One of management's major functions is to control company operations. Control consists of the steps taken by management to see that planned objectives are met. We now ask: How do budgets contribute to control of operations?

The use of budgets in controlling operations is known as **budgetary control**. Such control takes place by means of **budget reports** that compare actual results with planned objectives. The use of budget reports is based on the belief that planned objectives lose much of their potential value without some monitoring of progress along the way. Just as your professors give midterm exams to evaluate your progress, so top management requires periodic reports on the progress of department managers toward their planned objectives.

Budget reports provide management with feedback on operations. The feedback for a crucial objective, such as having enough cash on hand to pay bills, may be made daily. For other objectives, such as meeting budgeted annual sales and operating expenses, monthly budget reports may suffice. Budget reports are prepared as frequently as needed. From these reports, management analyzes any differences between actual and planned results and determines their causes. Management then takes corrective action, or it decides to modify future plans.

Budgetary control involves activities shown in Illustration 24-1.



**Illustration 24-1**  
Budgetary control activities

Budgetary control works best when a company has a formalized reporting system. The system does the following:

1. Identifies the name of the budget report, such as the sales budget or the manufacturing overhead budget.
2. States the frequency of the report, such as weekly or monthly.
3. Specifies the purpose of the report.
4. Indicates the primary recipient(s) of the report.

Illustration 24-2 provides a partial budgetary control system for a manufacturing company. Note the frequency of the reports and their emphasis on control. For example, there is a daily report on scrap and a weekly report on labor.

**Illustration 24-2**  
Budgetary control reporting system

<u>Name of Report</u>	<u>Frequency</u>	<u>Purpose</u>	<u>Primary Recipient(s)</u>
<b>Sales</b>	Weekly	Determine whether sales goals are being met	Top management and sales manager
<b>Labor</b>	Weekly	Control direct and indirect labor costs	Vice president of production and production department managers
<b>Scrap</b>	Daily	Determine efficient use of materials	Production manager
<b>Departmental overhead costs</b>	Monthly	Control overhead costs	Department manager
<b>Selling expenses</b>	Monthly	Control selling expenses	Sales manager
<b>Income statement</b>	Monthly and quarterly	Determine whether income objectives are being met	Top management

## STATIC BUDGET REPORTS

You learned in Chapter 23 that the master budget formalizes management's planned objectives for the coming year. When used in budgetary control, each budget included in the master budget is considered to be static. A **static budget** is a projection of budget data **at one level of activity**. These budgets do not consider data for different levels of activity. As a result, companies always compare actual results with budget data at the activity level that was used in developing the master budget.

### STUDY OBJECTIVE 2

Evaluate the usefulness of static budget reports.

1064 Chapter 24 Budgetary Control and Responsibility Accounting

### Examples

To illustrate the role of a static budget in budgetary control, we will use selected data prepared for Hayes Company in Chapter 23. Budget and actual sales data for the Kitchen-Mate product in the first and second quarters of 2010 are as follows.

**Illustration 24-3**

Budget and actual sales data

Sales	First Quarter	Second Quarter	Total
Budgeted	\$180,000	\$210,000	\$390,000
Actual	179,000	199,500	378,500
Difference	\$ 1,000	\$ 10,500	\$ 11,500

The sales budget report for Hayes Company's first quarter is shown below. The right-most column reports the difference between the budgeted and actual amounts.

**Illustration 24-4**

Sales budget report—first quarter

HAYES COMPANY			
Sales Budget Report			
For the Quarter Ended March 31, 2010			
Product Line	Budget	Actual	Difference
			Favorable F Unfavorable U
Kitchen-Mate <sup>a</sup>	\$180,000	\$179,000	\$1,000 U

<sup>a</sup>In practice, each product line would be included in the report.

**ALTERNATIVE TERMINOLOGY**

The difference between budget and actual is sometimes called a *budget variance*.

The report shows that sales are \$1,000 under budget—an unfavorable result. This difference is less than 1% of budgeted sales ( $\$1,000 \div \$180,000 = .0056$ ). Top management's reaction to unfavorable differences is often influenced by the materiality (significance) of the difference. Since the difference of \$1,000 is immaterial in this case, we assume that Hayes Company management takes no specific corrective action.

Illustration 24-5 shows the budget report for the second quarter. It contains one new feature: cumulative year-to-date information. This report indicates that sales for the second quarter are \$10,500 below budget. This is 5% of budgeted sales ( $\$10,500 \div \$210,000$ ). Top management may now conclude that the difference between budgeted and actual sales requires investigation.

**Illustration 24-5**

Sales budget report—second quarter

HAYES COMPANY						
Sales Budget Report						
For the Quarter Ended June 30, 2010						
Product Line	Second Quarter			Year-to-Date		
	Budget	Actual	Difference	Budget	Actual	Difference
			Favorable F Unfavorable U			Favorable F Unfavorable U
Kitchen-Mate	\$210,000	\$199,500	\$10,500 U	\$390,000	\$378,500	\$11,500 U

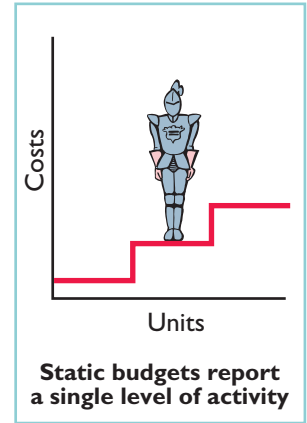
Management's analysis should start by asking the sales manager the cause(s) of the shortfall. Managers should consider the need for corrective action. For example, management may decide to spur sales by offering sales incentives to customers or by increasing the advertising of Kitchen-Mates. Or, if management concludes that a downturn in the economy is responsible for the lower sales, it may modify planned sales and profit goals for the remainder of the year.

## Uses and Limitations

From these examples, you can see that a master sales budget is useful in evaluating the performance of a sales manager. It is now necessary to ask: Is the master budget appropriate for evaluating a manager's performance in controlling costs? Recall that in a static budget, data are not modified or adjusted, regardless of changes in activity. It follows, then, that a static budget is appropriate in evaluating a manager's effectiveness in controlling costs when:

1. The actual level of activity closely approximates the master budget activity level, and/or
2. The behavior of the costs in response to changes in activity is fixed.

A static budget report is, therefore, appropriate for **fixed manufacturing costs** and for **fixed selling and administrative expenses**. But, as you will see shortly, static budget reports may not be a proper basis for evaluating a manager's performance in controlling variable costs.



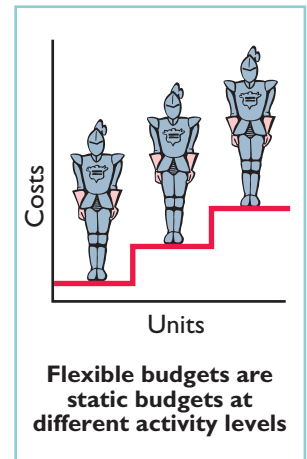
## FLEXIBLE BUDGETS

In contrast to a static budget, which is based on one level of activity, a **flexible budget** projects budget data for various levels of activity. In essence, **the flexible budget is a series of static budgets at different levels of activity**. The flexible budget recognizes that the budgetary process is more useful if it is adaptable to changed operating conditions.

### STUDY OBJECTIVE 3

Explain the development of flexible budgets and the usefulness of flexible budget reports.

Flexible budgets can be prepared for each of the types of budgets included in the master budget. For example, **Marriott Hotels** can budget revenues and net income on the basis of 60%, 80%, and 100% of room occupancy. Similarly, **American Van Lines** can budget its operating expenses on the basis of various levels of truck miles driven. Likewise, in the Feature Story, **Duke Energy** can budget revenue and net income on the basis of estimated billions of kwh (kilowatt hours) of residential, commercial, and industrial electricity generated. In the following pages, we will illustrate a flexible budget for manufacturing overhead.



## Why Flexible Budgets?

Assume that you are the manager in charge of manufacturing overhead in the Forging Department of Barton Steel. In preparing the manufacturing overhead budget for 2010, you prepare the following static budget based on a production volume of 10,000 units of steel ingots.

Illustration 24-6

Static overhead budget

<b>BARTON STEEL</b>	
Manufacturing Overhead Static Budget Forging Department For the Year Ended December 31, 2010	
Budgeted production in units (steel ingots)	10,000
Budgeted costs	
Indirect materials	\$ 250,000
Indirect labor	260,000
Utilities	190,000
Depreciation	280,000
Property taxes	70,000
Supervision	50,000
	\$1,100,000

### HELPFUL HINT

The static budget is the master budget described in Chapter 23.

**1066 Chapter 24 Budgetary Control and Responsibility Accounting**

Fortunately for the company, the demand for steel ingots has increased, and Barton produces and sells 12,000 units during the year, rather than 10,000. You are elated: Increased sales means increased profitability, which should mean a bonus or a raise for you and the employees in your department. Unfortunately, a comparison of Forging Department actual and budgeted costs has put you on the spot. The budget report is shown below.

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

**Illustration 24-8**  
Variable costs per unit

Illustration 24-9 calculates the budgeted variable costs at 12,000 units.

<u>Item</u>	<u>Computation</u>	<u>Total</u>
Indirect materials	$25 \times 12,000$	\$300,000
Indirect labor	$26 \times 12,000$	312,000
Utilities	$19 \times 12,000$	228,000
		<u>\$840,000</u>

**Illustration 24-9**

Budgeted variable costs,  
12,000 units

Because fixed costs do not change in total as activity changes, the budgeted amounts for these costs remain the same. Illustration 24-10 shows the budget report based on the flexible budget for **12,000 units** of production. (Compare this with Illustration 24-7, on page 1066.)

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

**Illustration 24-10**

Flexible overhead budget  
report



**1068 Chapter 24 Budgetary Control and Responsibility Accounting**

The activity index chosen should significantly influence the costs being budgeted. For manufacturing overhead costs, for example, the activity index is usually the same as the index used in developing the predetermined overhead rate—that is, direct labor hours or machine hours. For selling and administrative expenses, the activity index usually is sales or net sales.

The choice of the increment of activity is largely a matter of judgment. For example, if the relevant range is 8,000 to 12,000 direct labor hours, increments of 1,000 hours may be selected. The flexible budget is then prepared for each increment within the relevant range.

### Flexible Budget—A Case Study

To illustrate the flexible budget, we use Fox Manufacturing Company. Fox’s management uses a **flexible budget for monthly comparisons** of actual and budgeted manufacturing overhead costs of the Finishing Department. The master budget for the year ending December 31, 2010, shows expected annual operating capacity of 120,000 direct labor hours and the following overhead costs.

**Illustration 24-11**  
Master budget data

Variable Costs		Fixed Costs	
Indirect materials	\$180,000	Depreciation	\$180,000
Indirect labor	240,000	Supervision	120,000
Utilities	60,000	Property taxes	60,000
<b>Total</b>	<b>\$480,000</b>	<b>Total</b>	<b>\$360,000</b>

The four steps for developing the flexible budget are applied as follows.

- STEP 1. Identify the activity index and the relevant range of activity.** The activity index is direct labor hours. The relevant range is 8,000–12,000 direct labor hours per month.
- STEP 2. Identify the variable costs, and determine the budgeted variable cost per unit of activity for each cost.** There are three variable costs. The variable cost per unit is found by dividing each total budgeted cost by the direct labor hours used in preparing the master budget (120,000 hours). For Fox Manufacturing, the computations are:

**Illustration 24-12**  
Computation of variable costs per direct labor hour

Variable Cost	Computation	Variable Cost per Direct Labor Hour
Indirect materials	\$180,000 ÷ 120,000	<b>\$1.50</b>
Indirect labor	\$240,000 ÷ 120,000	<b>2.00</b>
Utilities	\$ 60,000 ÷ 120,000	<b>0.50</b>
<b>Total</b>		<b>\$4.00</b>

- STEP 3. Identify the fixed costs, and determine the budgeted amount for each cost.** There are three fixed costs. Since Fox desires **monthly budget data**, it divides each annual budgeted cost by 12 to find the monthly amounts. For Fox Manufacturing, the monthly budgeted fixed costs are: depreciation \$15,000, supervision \$10,000, and property taxes \$5,000.
- STEP 4. Prepare the budget for selected increments of activity within the relevant range.** Management prepares the budget in increments of 1,000 direct labor hours.

Illustration 24-13 shows Fox’s flexible budget.

	A	B	C	D	E	F
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						

**1070 Chapter 24 Budgetary Control and Responsibility Accounting**

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					

budget data are therefore based on the flexible budget for 9,000 hours in Illustration 24-13 (page 1069). The actual cost data are assumed.

How appropriate is this report in evaluating the Finishing Department manager's performance in controlling overhead costs? The report clearly provides a reliable basis. Both actual and budget costs are based on the activity level worked during January. Since variable costs generally are incurred directly by the department, the difference between the budget allowance for those hours and the actual costs is the responsibility of the department manager.

In subsequent months, Fox Manufacturing will prepare other flexible budget reports. For each month, the budget data are based on the actual activity level attained. In February that level may be 11,000 direct labor hours, in July 10,000, and so on.

Note that this flexible budget is based on a single cost driver. A more accurate budget often can be developed using the activity-based costing concepts explained in Chapter 21.

## Management by Exception

**Management by exception** means that top management's review of a budget report is focused either entirely or primarily on differences between actual results and planned objectives. This approach enables top management to focus on problem areas. For example, many companies now use online reporting systems for employees to file their travel and entertainment expense reports. In addition to cutting reporting time in half, the online system enables managers to quickly analyze variances from travel budgets. This enables companies to cut down on expense account "padding" such as spending too much on meals or falsifying documents for costs that were never actually incurred.

Management by exception does not mean that top management will investigate every difference. For this approach to be effective, there must be guidelines for identifying an exception. The usual criteria are materiality and controllability.

### MATERIALITY

Without quantitative guidelines, management would have to investigate every budget difference regardless of the amount. Materiality is usually expressed as a percentage difference from budget. For example, management may set the percentage difference at 5% for important items and 10% for other items. Managers will investigate all differences either over or under budget by the specified percentage. Costs over budget warrant investigation to determine why they were not controlled. Likewise, costs under budget merit investigation to determine whether costs critical to profitability are being curtailed. For example, if maintenance costs are budgeted at \$80,000 but only \$40,000 is spent, major unexpected breakdowns in productive facilities may occur in the future.

Alternatively, a company may specify a single percentage difference from budget for all items and supplement this guideline with a minimum dollar limit. For example, the exception criteria may be stated at 5% of budget or more than \$10,000.

### CONTROLLABILITY OF THE ITEM

Exception guidelines are more restrictive for controllable items than for items the manager cannot control. In fact, there may be no guidelines for noncontrollable items. For example, a large unfavorable difference between actual and budgeted property tax expense may not be flagged for investigation because the only possible causes are an unexpected increase in the tax rate or in the assessed value of the property. An investigation into the difference would be useless: the manager cannot control either cause.

1072 Chapter 24 Budgetary Control and Responsibility Accounting

**DO IT!**

**FLEXIBLE BUDGET REPORTS**

Lawler Company expects to produce 40,000 units of product CV93 during the current year. Budgeted variable manufacturing costs per unit are direct materials \$6, direct labor \$15, and overhead \$24. Annual budgeted fixed manufacturing overhead costs are \$120,000 for depreciation and \$60,000 for supervision.

In the current month, Lawler produced 5,000 units and incurred the following costs: direct materials \$33,900, direct labor \$74,200, variable overhead \$120,500, depreciation \$10,000, and supervision \$5,000.

Prepare a flexible budget report. (Note: You do not have to prepare the heading.) Were costs controlled?

**action plan**

- ✓ Use budget for actual units produced.
- ✓ Classify each cost as variable or fixed.
- ✓ Determine monthly fixed costs by dividing annual amounts by 12.
- ✓ Determine the difference as favorable or unfavorable.
- ✓ Determine the difference in total variable costs, total fixed costs, and total costs.

**Solution**

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					

The responsibility report indicates that actual direct labor was only about 1% different from the budget, and overhead was less than half a percent different. Both appear to have been well controlled.

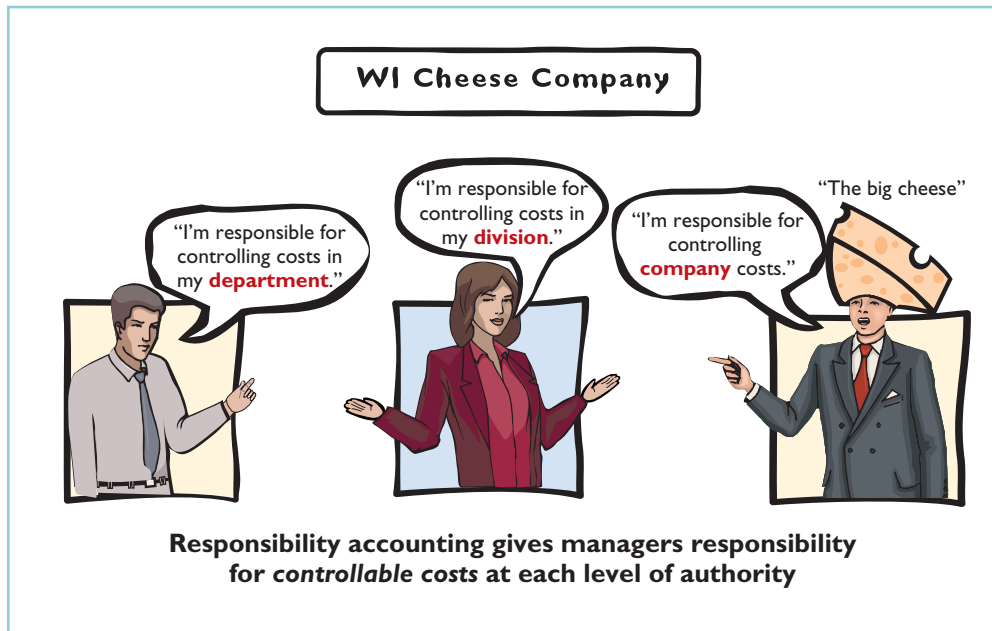
This was not the case for direct materials. Its 13% unfavorable difference should probably be investigated.

Actual fixed costs had no difference from budget and were well controlled.

Under responsibility accounting, a manager's performance is evaluated on matters directly under that manager's control. Responsibility accounting can be used at every level of management in which the following conditions exist.

1. Costs and revenues can be directly associated with the specific level of management responsibility.
2. The costs and revenues can be controlled by employees at the level of responsibility with which they are associated.
3. Budget data can be developed for evaluating the manager's effectiveness in controlling the costs and revenues.

Illustration 24-17 depicts levels of responsibility for controlling costs.



**Illustration 24-17**

Responsibility for controllable costs at varying levels of management

Under responsibility accounting, any individual who controls a specified set of activities can be a responsibility center. Thus, responsibility accounting may extend from the lowest level of control to the top strata of management. Once responsibility is established, the company first measures and reports the effectiveness of the individual's performance for the specified activity. It then reports that measure upward throughout the organization.

Responsibility accounting is especially valuable in a decentralized company. **Decentralization** means that the control of operations is delegated to many managers throughout the organization. The term **segment** is sometimes used to identify an area of responsibility in decentralized operations. Under responsibility accounting, companies prepare segment reports periodically, such as monthly, quarterly, and annually, to evaluate managers' performance.

Responsibility accounting is an essential part of any effective system of budgetary control. The reporting of costs and revenues under responsibility accounting differs from budgeting in two respects:

1. A distinction is made between controllable and noncontrollable items.
2. Performance reports either emphasize or include only items controllable by the individual manager.

**HELPFUL HINT**

All companies use responsibility accounting. Without some form of responsibility accounting, there would be chaos in discharging management's control function.

## 1074 Chapter 24 Budgetary Control and Responsibility Accounting

Responsibility accounting applies to both profit and not-for-profit entities. For-profit entities seek to maximize net income. Not-for-profit entities wish to provide services as efficiently as possible.

### MANAGEMENT INSIGHT



#### Competition versus Collaboration

Many compensation and promotion programs encourage competition among employees for pay raises. To get ahead you have to perform better than your fellow employees. While this may encourage hard work, it does not foster collaboration, and it can lead to distrust and disloyalty. Such results have led some companies to believe that cooperation and collaboration are essential in order to succeed in today's environment. For example, division managers might increase collaboration (and reduce costs) by sharing design and marketing resources or by jointly negotiating with suppliers. In addition, companies can reduce the need to hire and lay off employees by sharing employees across divisions as human resource needs increase and decrease.

As a consequence, many companies now explicitly include measures of collaboration in their performance measures. For example, **Procter & Gamble** measures collaboration in employees' annual performance reviews. At **Cisco Systems** the assessment of an employee's teamwork can affect the annual bonus by as much as 20%.

**Source:** Carol Hymowitz, "Rewarding Competitors Over Collaboration No Longer Makes Sense," *Wall Street Journal*, February 13, 2006.



How might managers of separate divisions be able to reduce division costs through collaboration?

### Controllable versus Noncontrollable Revenues and Costs

All costs and revenues are controllable at some level of responsibility within a company. This truth underscores the adage by the CEO of any organization that "the buck stops here." Under responsibility accounting, the critical issue is **whether the cost or revenue is controllable at the level of responsibility with which it is associated**. A cost over which a manager has control is called a **controllable cost**. From this definition, it follows that:

1. All costs are controllable by top management because of the broad range of its authority.
2. Fewer costs are controllable as one moves down to each lower level of managerial responsibility because of the manager's decreasing authority.

In general, **costs incurred directly by a level of responsibility are controllable at that level**. In contrast, costs incurred indirectly and allocated to a responsibility level are **noncontrollable costs** at that level.

### Responsibility Reporting System

A **responsibility reporting system** involves the preparation of a report for each level of responsibility in the company's organization chart. To illustrate such a system, we use the partial organization chart and production departments of Francis Chair Company in Illustration 24-18.

#### HELPFUL HINT

Are there more or fewer controllable costs as you move to higher levels of management?

Answer: More.

#### HELPFUL HINT

The longer the time span, the more likely that the cost becomes controllable.

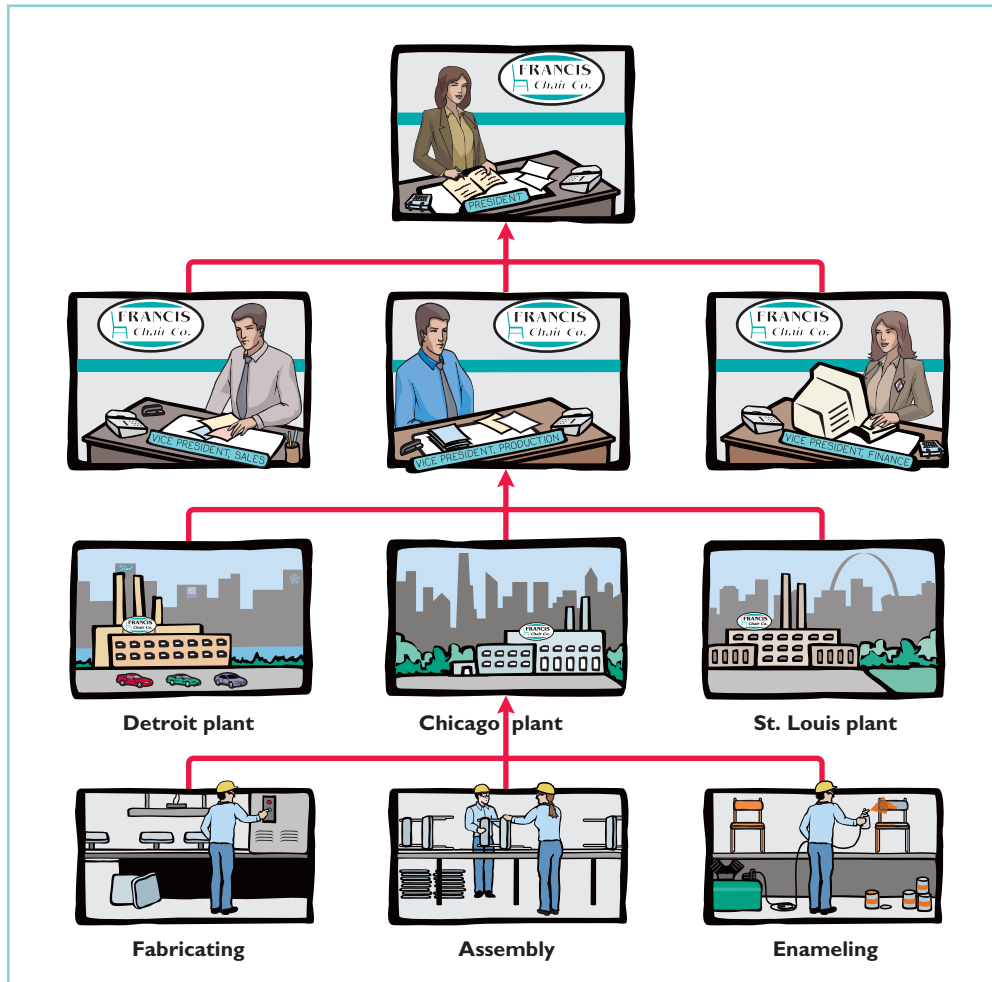


Illustration 24-18

Partial organization chart

**Report A**

President sees summary data of vice presidents.

**Report B**

Vice president sees summary of controllable costs in his/her functional area.

**Report C**

Plant manager sees summary of controllable costs for each department in the plant.

**Report D**

Department manager sees controllable costs of his/her department.

The responsibility reporting system begins with the lowest level of responsibility for controlling costs and moves upward to each higher level. Illustration 24-19 (page 1076) details the connections between levels. A brief description of the four reports for Francis Chair Company is as follows.

1. **Report D** is typical of reports that go to managers at the lowest level of responsibility shown in the organization chart—department managers. Similar reports are prepared for the managers of the Fabricating, Assembly, and Enameling Departments.
2. **Report C** is an example of reports that are sent to plant managers. It shows the costs of the Chicago plant that are controllable at the second level of responsibility. In addition, Report C shows summary data for each department that is controlled by the plant manager. Similar reports are prepared for the Detroit and St. Louis plant managers.
3. **Report B** illustrates the reports at the third level of responsibility. It shows the controllable costs of the vice president of production and summary data on the three assembly plants for which this officer is responsible. Similar reports are prepared for the vice presidents of sales and finance.
4. **Report A** is typical of reports that go to the top level of responsibility—the president. It shows the controllable costs and expenses of this office and summary data on the vice presidents that are accountable to the president.



**1076 Chapter 24 Budgetary Control and Responsibility Accounting**

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					

A responsibility reporting system permits management by exception at each level of responsibility. And, each higher level of responsibility can obtain the detailed report for each lower level of responsibility. For example, the vice president of production in the Francis Chair Company may request the Chicago plant manager's report because this plant is \$5,300 over budget.

This type of reporting system also permits comparative evaluations. In Illustration 24-19, the Chicago plant manager can easily rank the department managers' effectiveness in controlling manufacturing costs. Comparative rankings provide further incentive for a manager to control costs.

## TYPES OF RESPONSIBILITY CENTERS

There are three basic types of responsibility centers: cost centers, profit centers, and investment centers. These classifications indicate the degree of responsibility the manager has for the performance of the center.

A **cost center** incurs costs (and expenses) but does not directly generate revenues. Managers of cost centers have the authority to incur costs. They are evaluated on their ability to control costs. **Cost centers are usually either production departments or service departments.** Production departments participate directly in making the product. Service departments provide only support services. In a **Ford Motor Company** automobile plant, the welding, painting, and assembling departments are production departments. Ford's maintenance, cafeteria, and human resources departments are service departments. All of them are cost centers.

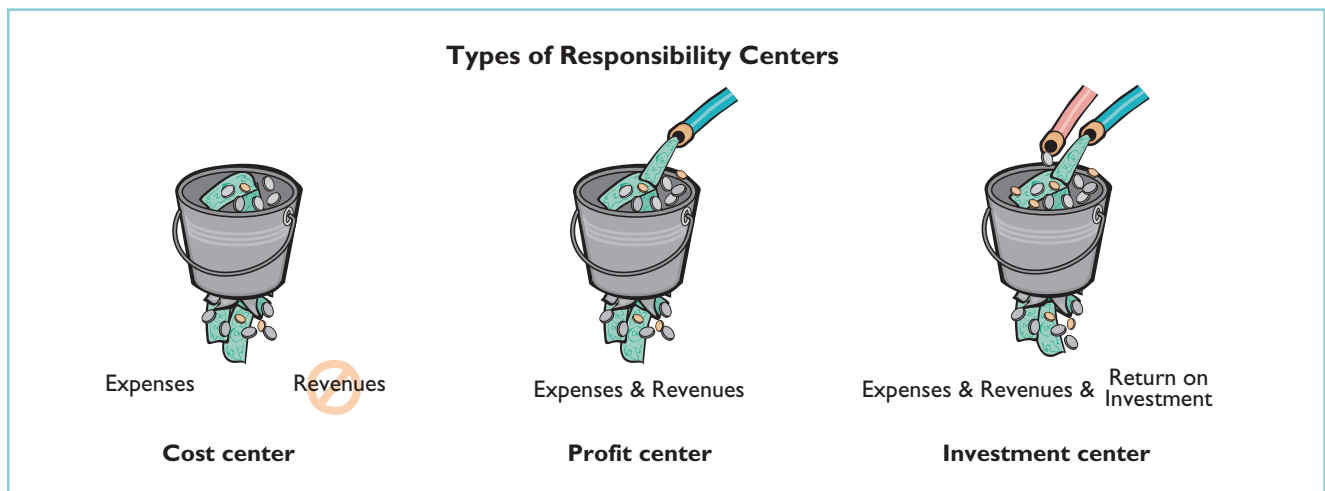
A **profit center** incurs costs (and expenses) and also generates revenues. Managers of profit centers are judged on the profitability of their centers. Examples of profit centers include the individual departments of a retail store, such as clothing, furniture, and automotive products, and branch offices of banks.

Like a profit center, an **investment center** incurs costs (and expenses) and generates revenues. In addition, an investment center has control over decisions regarding the assets available for use. Investment center managers are evaluated on both the profitability of the center and the rate of return earned on the funds invested. Investment centers are often associated with subsidiary companies. Utility **Duke Energy** has operating divisions such as electric utility, energy trading, and natural gas. Investment center managers control or significantly influence investment decisions related to such matters as plant expansion and entry into new market areas. Illustration 24-20 depicts these three types of responsibility centers.

### HELPFUL HINT

(1) Is the jewelry department of **Macy's** department store a profit center or a cost center? (2) Is the props department of a movie studio a profit center or a cost center?  
**Answers: (1) Profit center. (2) Cost center.**

**Illustration 24-20**  
Types of responsibility centers



1078 Chapter 24 Budgetary Control and Responsibility Accounting

## Responsibility Accounting for Cost Centers

The evaluation of a manager's performance for cost centers is based on his or her ability to meet budgeted goals for controllable costs. **Responsibility reports for cost centers compare actual controllable costs with flexible budget data.**

Illustration 24-21 shows a responsibility report. The report is adapted from the flexible budget report for Fox Manufacturing Company in Illustration 24-16 on page 1070. It assumes that the Finishing Department manager is able to control all manufacturing overhead costs except depreciation, property taxes, and his own monthly salary of \$6,000. The remaining \$4,000 (\$10,000 – \$6,000) of supervision costs are assumed to apply to other supervisory personnel within the Finishing Department, whose salaries are controllable by the manager.

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					

Since these fixed costs can be traced directly to a center, they are also called **traceable costs**. **Most direct fixed costs are controllable by the profit center manager.**

In contrast, **indirect fixed costs** pertain to a company's overall operating activities and are incurred for the benefit of more than one profit center. Management allocates indirect fixed costs to profit centers on some type of equitable basis. For example, property taxes on a building occupied by more than one center may be allocated on the basis of square feet of floor space used by each center. Or, the costs of a company's human resources department may be allocated to profit centers on the basis of the number of employees in each center. Because these fixed costs apply to more than one center, they are also called **common costs**. **Most indirect fixed costs are not controllable by the profit center manager.**

### RESPONSIBILITY REPORT

The responsibility report for a profit center shows budgeted and actual **controllable revenues and costs**. The report is prepared using the cost-volume-profit income statement explained in Chapter 22. In the report:

1. Controllable fixed costs are deducted from contribution margin.
2. The excess of contribution margin over controllable fixed costs is identified as **controllable margin**.
3. Noncontrollable fixed costs are not reported.

Illustration 24-22 shows the responsibility report for the manager of the Marine Division, a profit center of Mantle Manufacturing Company. For the year, the Marine Division also had \$60,000 of indirect fixed costs that were not controllable by the profit center manager.

Controllable margin is considered to be the best measure of the manager's performance **in controlling revenues and costs**. The report in Illustration 24-22 shows that the manager's performance was below budgeted expectations by 10% (\$36,000 ÷ \$360,000). Top management would likely investigate the causes of this unfavorable result. Note that the report does not show the Marine Division's noncontrollable fixed costs of \$60,000. These costs would be included in a report on the profitability of the profit center.

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					

1080 Chapter 24 Budgetary Control and Responsibility Accounting

Management also may choose to see monthly responsibility reports for profit centers. In addition, responsibility reports may include cumulative year-to-date results.

**DO IT!**

**RESPONSIBILITY REPORTS FOR PROFIT CENTERS**

Midwest Division operates as a profit center. It reports the following for the year.

	<u>Budgeted</u>	<u>Actual</u>
Sales	\$1,500,000	\$1,700,000
Variable costs	700,000	800,000
Controllable fixed costs	400,000	400,000
Noncontrollable fixed costs	200,000	200,000

**action plan**

- ✓ Deduct variable costs from sales to show contribution margin.
- ✓ Deduct controllable fixed costs from the contribution margin to show controllable margin.
- ✓ Do not report noncontrollable fixed costs.

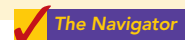
Prepare a responsibility report for the Midwest Division for December 31, 2010.

**Solution**

**MIDWEST DIVISION**  
Responsibility Report  
For the Year Ended December 31, 2010

	<u>Budget</u>	<u>Actual</u>	<u>Difference</u>
			<u>Favorable F</u> <u>Unfavorable U</u>
Sales	\$1,500,000	\$1,700,000	\$200,000 F
Variable costs	700,000	800,000	100,000 U
Contribution margin	800,000	900,000	100,000 F
Controllable fixed costs	400,000	400,000	-0-
Controllable margin	<u>\$ 400,000</u>	<u>\$ 500,000</u>	<u>\$100,000 F</u>

Related exercise material: BE24-7, E24-9, E24-13, and **DO IT!** 24-3.



**Responsibility Accounting for Investment Centers**

**STUDY OBJECTIVE 7**

Explain the basis and formula used in evaluating performance in investment centers.

As explained earlier, an investment center manager can control or significantly influence the investment funds available for use. Thus, the primary basis for evaluating the performance of a manager of an investment center is **return on investment (ROI)**. The return on investment is considered to be a useful performance measurement because it shows the **effectiveness of the manager in utilizing the assets at his or her disposal**.

**RETURN ON INVESTMENT (ROI)**

The formula for computing ROI for an investment center, together with assumed illustrative data, is shown in Illustration 24-23.

**Illustration 24-23**  
ROI formula

Controllable Margin	÷	Average Operating Assets	=	Return on Investment (ROI)
\$1,000,000	÷	\$5,000,000	=	<b>20%</b>

Both factors in the formula are controllable by the investment center manager. Operating assets consist of current assets and plant assets used in operations by the

center and controlled by the manager. Nonoperating assets such as idle plant assets and land held for future use are excluded. Average operating assets are usually based on the cost or book value of the assets at the beginning and end of the year.

**RESPONSIBILITY REPORT**

The scope of the investment center manager’s responsibility significantly affects the content of the performance report. Since an investment center is an independent entity for operating purposes, **all fixed costs are controllable by its manager**. For example, the manager is responsible for depreciation on investment center assets. Therefore, more fixed costs are identified as controllable in the performance report for an investment center manager than in a performance report for a profit center manager. The report also shows budgeted and actual ROI below controllable margin.

To illustrate this responsibility report, we will now assume that the Marine Division of Mantle Manufacturing Company is an investment center. It has budgeted and actual average operating assets of \$2,000,000. The manager can control \$60,000 of fixed costs that were not controllable when the division was a profit center. Illustration 24-24 shows the division’s responsibility report.

	A	B	C	D	E
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					

**1082 Chapter 24 Budgetary Control and Responsibility Accounting**

Each of the alternative values for operating assets can provide a reliable basis for evaluating a manager’s performance as long as it is consistently applied between reporting periods. However, the use of income measures other than controllable margin will not result in a valid basis for evaluating the performance of an investment center manager.

**IMPROVING ROI**

The manager of an investment center can improve ROI in two ways: (1) increase controllable margin, and/or (2) reduce average operating assets. To illustrate, we will use the following assumed data for the Laser Division of Berra Manufacturing.

**Illustration 24-25**  
Assumed data for Laser Division

Sales	\$2,000,000
Variable costs	<u>1,100,000</u>
Contribution margin (45%)	900,000
Controllable fixed costs	<u>300,000</u>
Controllable margin (a)	<u>\$ 600,000</u>
Average operating assets (b)	\$5,000,000
Return on investment (a) ÷ (b)	<b>12%</b>

**Increasing Controllable Margin.** Controllable margin can be increased by increasing sales or by reducing variable and controllable fixed costs as follows.

- 1. Increase sales 10%.** Sales will increase \$200,000 (\$2,000,000 × .10). Assuming no change in the contribution margin percentage of 45%, contribution margin will increase \$90,000 (\$200,000 × .45). Controllable margin will increase by the same amount because controllable fixed costs will not change. Thus, controllable margin becomes \$690,000 (\$600,000 + \$90,000). The new ROI is 13.8%, computed as follows.

**Illustration 24-26**  
ROI computation—increase in sales

$$ROI = \frac{\text{Controllable margin}}{\text{Average operating assets}} = \frac{\$690,000}{\$5,000,000} = \mathbf{13.8\%}$$

An increase in sales benefits both the investment center and the company if it results in new business. It would not benefit the company if the increase was achieved at the expense of other investment centers.

- 2. Decrease variable and fixed costs 10%.** Total costs decrease \$140,000 [(\$1,100,000 + \$300,000) × .10]. This reduction results in a corresponding increase in controllable margin. Thus, controllable margin becomes \$740,000 (\$600,000 + \$140,000). The new ROI is 14.8%, computed as follows.

**Illustration 24-27**  
ROI computation—decrease in costs

$$ROI = \frac{\text{Controllable margin}}{\text{Average operating assets}} = \frac{\$740,000}{\$5,000,000} = \mathbf{14.8\%}$$

This course of action is clearly beneficial when waste and inefficiencies are eliminated. But, a reduction in vital costs such as required maintenance and inspections is not likely to be acceptable to top management.

**Reducing Average Operating Assets.** Assume that average operating assets are reduced 10% or \$500,000 ( $\$5,000,000 \times .10$ ). Average operating assets become \$4,500,000 ( $\$5,000,000 - \$500,000$ ). Since controllable margin remains unchanged at \$600,000, the new ROI is 13.3%, computed as follows.

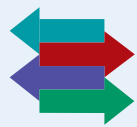
$$\text{ROI} = \frac{\text{Controllable margin}}{\text{Average operating assets}} = \frac{\$600,000}{\$4,500,000} = 13.3\%$$

**Illustration 24-28**

ROI computation—decrease in operating assets

Reductions in operating assets may or may not be prudent. It is beneficial to eliminate overinvestment in inventories and to dispose of excessive plant assets. However, it is unwise to reduce inventories below expected needs or to dispose of essential plant assets.

## ACCOUNTING ACROSS THE ORGANIZATION



### Does Hollywood Look at ROI?

If Hollywood were run like a real business, where things like return on investment mattered, there would be one unchallenged, sacred principle that studio chiefs would never violate: Make lots of G-rated movies.

No matter how you slice the movie business—by star vehicles, by budget levels, by sequels or franchises—by far the best return on investment comes from the not-so-glamorous world of G-rated films. The problem is, these movies represent only 3% of the total films made in a typical year.

Take 2003: According to Motion Picture Association of America statistics, of the 940 movies released that year, only 29 were G-rated. Yet the highest-grossing movie of the year, *Finding Nemo*, was G-rated. . . . On the flip side are the R-rated films, which dominate the total releases and yet yield the worst return on investment. A whopping 646 R-rated films were released in 2003—69% of the total output—but only four of the top-20 grossing movies of the year were R-rated films.

This trend—G-rated movies are good for business but underproduced; R-rated movies are bad for business, and yet overdone—is something that has been driving economists batty for the past several years.

**Source:** Grainger, David, "The Dysfunctional Family-Film Business," *Fortune*, January 10, 2005, pp. 20–21.



What might be the reason that movie studios do not produce G-rated movies as often as R-rated ones?



## Principles of Performance Evaluation

Performance evaluation is at the center of responsibility accounting. **Performance evaluation** is a management function that compares actual results with budget goals. It involves both behavioral and reporting principles.

### BEHAVIORAL PRINCIPLES

The human factor is critical in evaluating performance. Behavioral principles include the following.

- 1. Managers of responsibility centers should have direct input into the process of establishing budget goals of their area of responsibility.** Without such input, managers may view the goals as unrealistic or arbitrarily set by top management. Such views adversely affect the managers' motivation to meet the targeted objectives.



## 1084 Chapter 24 Budgetary Control and Responsibility Accounting

2. **The evaluation of performance should be based entirely on matters that are controllable by the manager being evaluated.** Criticism of a manager on matters outside his or her control reduces the effectiveness of the evaluation process. It leads to negative reactions by a manager and to doubts about the fairness of the company's evaluation policies.
3. **Top management should support the evaluation process.** As explained earlier, the evaluation process begins at the lowest level of responsibility and extends upward to the highest level of management. Managers quickly lose faith in the process when top management ignores, overrules, or bypasses established procedures for evaluating a manager's performance.
4. **The evaluation process must allow managers to respond to their evaluations.** Evaluation is not a one-way street. Managers should have the opportunity to defend their performance. Evaluation without feedback is both impersonal and ineffective.
5. **The evaluation should identify both good and poor performance.** Praise for good performance is a powerful motivating factor for a manager. This is especially true when a manager's compensation includes rewards for meeting budget goals.

### REPORTING PRINCIPLES

Performance evaluation under responsibility accounting should be based on certain reporting principles. These principles pertain primarily to the internal reports that provide the basis for evaluating performance. Performance reports should:

1. Contain only data that are controllable by the manager of the responsibility center.
2. Provide accurate and reliable budget data to measure performance.
3. Highlight significant differences between actual results and budget goals.
4. Be tailor-made for the intended evaluation.
5. Be prepared at reasonable intervals.

In recent years companies have come under increasing pressure from influential shareholder groups to do a better job of linking executive pay to corporate performance. For example, software maker **Siebel Systems** unveiled a new incentive plan after lengthy discussions with the California Public Employees' Retirement System. One unique feature of the plan is that managers' targets will be publicly disclosed at the beginning of each year for investors to evaluate.

### DO IT!

#### PERFORMANCE EVALUATION

#### action plan

- ✓ Recall key formulas:  
Sales – Variable cost =  
Contribution margin.
- ✓ Contribution margin ÷  
Sales = Contribution margin percentage.
- ✓ Contribution margin –  
Controllable fixed costs =  
Controllable margin.
- ✓ Return on investment =  
Controllable margin ÷  
Average operating assets.

The service division of Metro Industries reported the following results for 2010.

Sales	\$400,000
Variable costs	320,000
Controllable fixed costs	40,800
Average operating assets	280,000

Management is considering the following independent courses of action in 2011 in order to maximize the return on investment for this division.

1. Reduce average operating assets by \$80,000, with no change in controllable margin.
  2. Increase sales \$80,000, with no change in the contribution margin percentage.
- (a) Compute the controllable margin and the return on investment for 2010.  
(b) Compute the controllable margin and the expected return on investment for each proposed alternative.

**Solution****(a)** Return on investment for 2010

Sales			\$400,000
Variable costs			<u>320,000</u>
Contribution margin			80,000
Controllable fixed costs			<u>40,800</u>
Controllable margin			<u>\$ 39,200</u>
Return on investment	$\frac{\$ 39,200}{\$280,000}$	=	14%

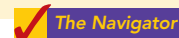
**(b)** Expected return on investment for alternative 1:

$$\frac{\$39,200}{\$200,000} = 19.6\%$$

## Expected return on investment for alternative 2:

Sales (\$400,000 + 80,000)			\$480,000
Variable costs (\$320,000/400,000 × \$480,000)			<u>384,000</u>
Contribution margin			96,000
Controllable fixed costs			<u>40,800</u>
Controllable margin			<u>\$ 55,200</u>
Return on investment	$\frac{\$55,200}{\$280,000}$	=	19.7%

Related exercise material: BE24-8, BE24-9, BE24-10, E24-14, E24-15, E24-16, E24-17, and **DO IT!** 24-4.

**Comprehensive DO IT!**

Glenda Company uses a flexible budget for manufacturing overhead based on direct labor hours. For 2010 the master overhead budget for the Packaging Department based on 300,000 direct labor hours was as follows.

Variable Costs		Fixed Costs	
Indirect labor	\$360,000	Supervision	\$ 60,000
Supplies and lubricants	150,000	Depreciation	24,000
Maintenance	210,000	Property taxes	18,000
Utilities	<u>120,000</u>	Insurance	<u>12,000</u>
	<u>\$840,000</u>		<u>\$114,000</u>

During July, 24,000 direct labor hours were worked. The company incurred the following variable costs in July: indirect labor \$30,200, supplies and lubricants \$11,600, maintenance \$17,500, and utilities \$9,200. Actual fixed overhead costs were the same as monthly budgeted fixed costs.

**Instructions**

Prepare a flexible budget report for the Packaging Department for July.

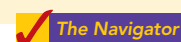
**action plan**

- ✓ Compute the cost per direct labor hour for all variable costs.
- ✓ Use budget data for actual direct labor hours worked.
- ✓ Classify each cost as variable or fixed.
- ✓ Determine the difference between budgeted and actual costs.
- ✓ Identify the difference as favorable or unfavorable.
- ✓ Determine the difference in total variable costs, total fixed costs, and total costs.

**Solution to Comprehensive DO IT!**

**GLENDА COMPANY**  
 Manufacturing Overhead Flexible Budget Report  
 Packaging Department  
 For the Month Ended July 31, 2010

Direct labor hours (DLH)	Budget	Actual Costs	Difference
	24,000 DLH	24,000 DLH	Favorable F Unfavorable U
Variable costs			
Indirect labor (\$1.20)	\$28,800	\$30,200	\$1,400 U
Supplies and lubricants (\$0.50)	12,000	11,600	400 F
Maintenance (\$0.70)	16,800	17,500	700 U
Utilities (\$0.40)	9,600	9,200	400 F
Total variable	67,200	68,500	1,300 U
Fixed costs			
Supervision	\$ 5,000	\$ 5,000	-0-
Depreciation	2,000	2,000	-0-
Property taxes	1,500	1,500	-0-
Insurance	1,000	1,000	-0-
Total fixed	9,500	9,500	-0-
Total costs	\$76,700	\$78,000	\$1,300 U



## SUMMARY OF STUDY OBJECTIVES



- 1 Describe the concept of budgetary control.** Budgetary control consists of (a) preparing periodic budget reports that compare actual results with planned objectives, (b) analyzing the differences to determine their causes, (c) taking appropriate corrective action, and (d) modifying future plans, if necessary.
- 2 Evaluate the usefulness of static budget reports.** Static budget reports are useful in evaluating the progress toward planned sales and profit goals. They are also appropriate in assessing a manager's effectiveness in controlling costs when (a) actual activity closely approximates the master budget activity level, and/or (b) the behavior of the costs in response to changes in activity is fixed.
- 3 Explain the development of flexible budgets and the usefulness of flexible budget reports.** To develop the flexible budget it is necessary to: (a) Identify the activity index and the relevant range of activity. (b) Identify the variable costs, and determine the budgeted variable cost per unit of activity for each cost. (c) Identify the fixed costs, and determine the budgeted amount for each cost. (d) Prepare the budget for selected increments of activity within the relevant range. Flexible budget reports permit an evaluation of a manager's performance in controlling production and costs.
- 4 Describe the concept of responsibility accounting.** Responsibility accounting involves accumulating and reporting revenues and costs on the basis of the individual manager who has the authority to make the day-to-day decisions about the items. The evaluation of a manager's performance is based on the matters directly under the manager's control. In responsibility accounting, it is necessary to distinguish between controllable and noncontrollable fixed costs and to identify three types of responsibility centers: cost, profit, and investment.
- 5 Indicate the features of responsibility reports for cost centers.** Responsibility reports for cost centers compare actual costs with flexible budget data. The reports show only controllable costs, and no distinction is made between variable and fixed costs.
- 6 Identify the content of responsibility reports for profit centers.** Responsibility reports show contribution margin, controllable fixed costs, and controllable margin for each profit center.
- 7 Explain the basis and formula used in evaluating performance in investment centers.** The primary basis for evaluating performance in investment centers is return on investment (ROI). The formula for computing ROI for investment centers is: Controllable margin  $\div$  Average operating assets.



## GLOSSARY



- Budgetary control** The use of budgets to control operations. (p. 1062).
- Controllable cost** A cost over which a manager has control. (p. 1074).
- Controllable margin** Contribution margin less controllable fixed costs. (p. 1079).
- Cost center** A responsibility center that incurs costs but does not directly generate revenues. (p. 1077).
- Decentralization** Control of operations is delegated to many managers throughout the organization. (p. 1073).
- Direct fixed costs** Costs that relate specifically to a responsibility center and are incurred for the sole benefit of the center. (p. 1078).
- Flexible budget** A projection of budget data for various levels of activity. (p. 1065).
- Indirect fixed costs** Costs that are incurred for the benefit of more than one profit center. (p. 1079).
- Investment center** A responsibility center that incurs costs, generates revenues, and has control over decisions regarding the assets available for use. (p. 1077).
- Management by exception** The review of budget reports by top management focused entirely or primarily on differences between actual results and planned objectives. (p. 1071).
- Noncontrollable costs** Costs incurred indirectly and allocated to a responsibility center that are not controllable at that level. (p. 1074).
- Profit center** A responsibility center that incurs costs and also generates revenues. (p. 1077).
- Responsibility accounting** A part of management accounting that involves accumulating and reporting revenues and costs on the basis of the manager who has the authority to make the day-to-day decisions about the items. (p. 1072).
- Responsibility reporting system** The preparation of reports for each level of responsibility in the company's organization chart. (p. 1074).
- Return on investment (ROI)** A measure of management's effectiveness in utilizing assets at its disposal in an investment center. (p. 1080).
- Segment** An area of responsibility in decentralized operations. (p. 1073).
- Static budget** A projection of budget data at one level of activity. (p. 1063).

## SELF-STUDY QUESTIONS



Answers are at the end of the chapter.

- (SO 1) 1. Budgetary control involves all but one of the following:
- modifying future plans.
  - analyzing differences.
  - using static budgets.
  - determining differences between actual and planned results.
- (SO 1) 2. Budget reports are prepared:
- daily.
  - weekly.
  - monthly.
  - All of the above.
- (SO 1) 3. A production manager in a manufacturing company would most likely receive a:
- sales report.
  - income statement.
  - scrap report.
  - shipping department overhead report.
- (SO 2) 4. A static budget is:
- a projection of budget data at several levels of activity within the relevant range of activity.
  - a projection of budget data at a single level of activity.
  - compared to a flexible budget in a budget report.
  - never appropriate in evaluating a manager's effectiveness in controlling costs.
- (SO 2) 5. A static budget is useful in controlling costs when cost behavior is:
- mixed.
  - fixed.
  - variable.
  - linear.
6. At zero direct labor hours in a flexible budget graph, the total budgeted cost line intersects the vertical axis at \$30,000. At 10,000 direct labor hours, a horizontal line drawn from the total budgeted cost line intersects the vertical axis at \$90,000. Fixed and variable costs may be expressed as:
- \$30,000 fixed plus \$6 per direct labor hour variable.
  - \$30,000 fixed plus \$9 per direct labor hour variable.
  - \$60,000 fixed plus \$3 per direct labor hour variable.
  - \$60,000 fixed plus \$6 per direct labor hour variable.
- (SO 3) 7. At 9,000 direct labor hours, the flexible budget for indirect materials is \$27,000. If \$28,000 of indirect materials costs are incurred at 9,200 direct labor hours, the flexible budget report should show the following difference for indirect materials:
- \$1,000 unfavorable.
  - \$1,000 favorable.
  - \$400 favorable.
  - \$400 unfavorable.
- (SO 4) 8. Under responsibility accounting, the evaluation of a manager's performance is based on matters that the manager:
- directly controls.
  - directly and indirectly controls.
  - indirectly controls.
  - has shared responsibility for with another manager.
- (SO 4) 9. Responsibility centers include:
- cost centers.
  - profit centers.
  - investment centers.
  - All of the above.

## 1088 Chapter 24 Budgetary Control and Responsibility Accounting

- (SO 5) 10. Responsibility reports for cost centers:
- distinguish between fixed and variable costs.
  - use static budget data.
  - include both controllable and noncontrollable costs.
  - include only controllable costs.
- (SO 5) 11. The accounting department of a manufacturing company is an example of:
- a cost center.
  - a profit center.
  - an investment center.
  - a contribution center.
- (SO 6) 12. To evaluate the performance of a profit center manager, upper management needs detailed information about:
- controllable costs.
  - controllable revenues.
  - controllable costs and revenues.
  - controllable costs and revenues and average operating assets.
- (SO 6) 13. In a responsibility report for a profit center, controllable fixed costs are deducted from contribution margin to show:
- profit center margin.
  - controllable margin.
  - net income.
  - income from operations.
14. In the formula for return on investment (ROI), the factors for controllable margin and operating assets are, respectively:
- controllable margin percentage and total operating assets.
  - controllable margin dollars and average operating assets.
  - controllable margin dollars and total assets.
  - controllable margin percentage and average operating assets.
15. A manager of an investment center can improve ROI by:
- increasing average operating assets.
  - reducing sales.
  - increasing variable costs.
  - reducing variable and/or controllable fixed costs.

Go to the book's companion website,  
[www.wiley.com/college/weygandt](http://www.wiley.com/college/weygandt),  
 for Additional Self-Study questions.



## QUESTIONS

- What is budgetary control?
  - Greg Gilligan is describing budgetary control. What steps should be included in Greg's description?
- The following purposes are part of a budgetary reporting system: (a) Determine efficient use of materials. (b) Control overhead costs. (c) Determine whether income objectives are being met. For each purpose, indicate the name of the report, the frequency of the report, and the primary recipient(s) of the report.
- How may a budget report for the second quarter differ from a budget report for the first quarter?
- Joe Cey questions the usefulness of a master sales budget in evaluating sales performance. Is there justification for Joe's concern? Explain.
- Under what circumstances may a static budget be an appropriate basis for evaluating a manager's effectiveness in controlling costs?
- "A flexible budget is really a series of static budgets." Is this true? Why?
- The static manufacturing overhead budget based on 40,000 direct labor hours shows budgeted indirect labor costs of \$54,000. During March, the department incurs \$65,000 of indirect labor while working 45,000 direct labor hours. Is this a favorable or unfavorable performance? Why?
- A static overhead budget based on 40,000 direct labor hours shows Factory Insurance \$6,500 as a fixed cost. At the 50,000 direct labor hours worked in March, factory insurance costs were \$6,200. Is this a favorable or unfavorable performance? Why?
- Kate Coulter is confused about how a flexible budget is prepared. Identify the steps for Kate.
- Alou Company has prepared a graph of flexible budget data. At zero direct labor hours, the total budgeted cost line intersects the vertical axis at \$25,000. At 10,000 direct labor hours, the line drawn from the total budgeted cost line intersects the vertical axis at \$85,000. How may the fixed and variable costs be expressed?
- The flexible budget formula is fixed costs \$40,000 plus variable costs of \$4 per direct labor hour. What is the total budgeted cost at (a) 9,000 hours and (b) 12,345 hours?
- What is management by exception? What criteria may be used in identifying exceptions?
- What is responsibility accounting? Explain the purpose of responsibility accounting.
- Ann Wilkins is studying for an accounting examination. Describe for Ann what conditions are necessary for responsibility accounting to be used effectively.
- Distinguish between controllable and noncontrollable costs.
- How do responsibility reports differ from budget reports?
- What is the relationship, if any, between a responsibility reporting system and a company's organization chart?
- Distinguish among the three types of responsibility centers.
- (a) What costs are included in a performance report for a cost center? (b) In the report, are variable and fixed costs identified?
- How do direct fixed costs differ from indirect fixed costs? Are both types of fixed costs controllable?
- Lori Quan is confused about controllable margin reported in an income statement for a profit center. How is this margin computed, and what is its primary purpose?

22. What is the primary basis for evaluating the performance of the manager of an investment center? Indicate the formula for this basis.
23. Explain the ways that ROI can be improved.
24. Indicate two behavioral principles that pertain to (a) the manager being evaluated and (b) top management.

## BRIEF EXERCISES



- BE24-1** For the quarter ended March 31, 2010, Voorhees Company accumulates the following sales data for its product, Garden-Tools: \$310,000 budget; \$304,000 actual. Prepare a static budget report for the quarter. *Prepare static budget report. (SO 2)*
- BE24-2** Data for Voorhees Company are given in BE24-1. In the second quarter, budgeted sales were \$380,000, and actual sales were \$383,000. Prepare a static budget report for the second quarter and for the year to date. *Prepare static budget report for 2 quarters. (SO 2)*
- BE24-3** In Mussatto Company, direct labor is \$20 per hour. The company expects to operate at 10,000 direct labor hours each month. In January 2008, direct labor totaling \$203,000 is incurred in working 10,400 hours. Prepare (a) a static budget report and (b) a flexible budget report. Evaluate the usefulness of each report. *Show usefulness of flexible budgets in evaluating performance. (SO 3)*
- BE24-4** Hannon Company expects to produce 1,200,000 units of Product XX in 2010. Monthly production is expected to range from 80,000 to 120,000 units. Budgeted variable manufacturing costs per unit are: direct materials \$4, direct labor \$6, and overhead \$8. Budgeted fixed manufacturing costs per unit for depreciation are \$2 and for supervision are \$1. Prepare a flexible manufacturing budget for the relevant range value using 20,000 unit increments. *Prepare a flexible budget for variable costs. (SO 3)*
- BE24-5** Data for Hannon Company are given in BE24-4. In March 2010, the company incurs the following costs in producing 100,000 units: direct materials \$425,000, direct labor \$590,000, and variable overhead \$805,000. Prepare a flexible budget report for March. Were costs controlled? *Prepare flexible budget report. (SO 3)*
- BE24-6** In the Assembly Department of Cobb Company, budgeted and actual manufacturing overhead costs for the month of April 2010 were as follows. *Prepare a responsibility report for a cost center. (SO 5)*

	<u>Budget</u>	<u>Actual</u>
Indirect materials	\$15,000	\$14,300
Indirect labor	20,000	20,600
Utilities	10,000	10,750
Supervision	5,000	5,000

All costs are controllable by the department manager. Prepare a responsibility report for April for the cost center.

- BE24-7** Eckert Manufacturing Company accumulates the following summary data for the year ending December 31, 2010, for its Water Division which it operates as a profit center: sales—\$2,000,000 budget, \$2,080,000 actual; variable costs—\$1,000,000 budget, \$1,050,000 actual; and controllable fixed costs—\$300,000 budget, \$310,000 actual. Prepare a responsibility report for the Water Division. *Prepare a responsibility report for a profit center. (SO 6)*
- BE24-8** For the year ending December 31, 2010, Kaspar Company accumulates the following data for the Plastics Division which it operates as an investment center: contribution margin—\$700,000 budget, \$715,000 actual; controllable fixed costs—\$300,000 budget, \$309,000 actual. Average operating assets for the year were \$2,000,000. Prepare a responsibility report for the Plastics Division beginning with contribution margin. *Prepare a responsibility report for an investment center. (SO 7)*
- BE24-9** For its three investment centers, Paige Company accumulates the following data: *Compute return on investment using the ROI formula. (SO 7)*

	<u>I</u>	<u>II</u>	<u>III</u>
Sales	\$2,000,000	\$3,000,000	\$ 4,000,000
Controllable margin	1,200,000	2,000,000	3,200,000
Average operating assets	5,000,000	8,000,000	10,000,000

Compute the return on investment (ROI) for each center.

## 1090 Chapter 24 Budgetary Control and Responsibility Accounting

Compute return on investment under changed conditions.

(SO 7)

**BE24-10** Data for the investment centers for Paige Company are given in BE24-9. The centers expect the following changes in the next year: (I) increase sales 15%; (II) decrease costs \$200,000; (III) decrease average operating assets \$400,000. Compute the expected return on investment (ROI) for each center. Assume center I has a contribution margin percentage of 75%.

### DO IT! REVIEW

Compute total budgeted costs in flexible budget.

(SO 3)

**DO IT! 24-1** In Moore Company's flexible budget graph, the fixed cost line and the total budgeted cost line intersect the vertical axis at \$90,000. The total budgeted cost line is \$330,000 at an activity level of 60,000 direct labor hours. Compute total budgeted costs at 70,000 direct labor hours.

Prepare and evaluate a flexible budget report.

(SO 3)

**DO IT! 24-2** Chickasaw Company expects to produce 50,000 units of product IOA during the current year. Budgeted variable manufacturing costs per unit are direct materials \$7, direct labor \$12, and overhead \$18. Annual budgeted fixed manufacturing overhead costs are \$96,000 for depreciation and \$45,000 for supervision.

In the current month, Chickasaw produced 6,000 units and incurred the following costs: direct materials \$38,900, direct labor \$70,200, variable overhead \$116,500, depreciation \$8,000, and supervision \$4,000.

Prepare a flexible budget report. (*Note:* You do not need to prepare the heading.) Were costs controlled?

Prepare a responsibility report.

(SO 6)

**DO IT! 24-3** The Deep South Division operates as a profit center. It reports the following for the year.

	<u>Budgeted</u>	<u>Actual</u>
Sales	\$2,000,000	\$1,800,000
Variable costs	800,000	750,000
Controllable fixed costs	550,000	550,000
Noncontrollable fixed costs	250,000	250,000

Prepare a responsibility report for the Deep South Division at December 31, 2010.

Compute ROI and expected return on investments.

(SO 7)

**DO IT! 24-4** The service division of Retro Industries reported the following results for 2010.

Sales	\$500,000
Variable costs	300,000
Controllable fixed costs	75,000
Average operating assets	450,000

Management is considering the following independent courses of action in 2011 in order to maximize the return on investment for this division.

1. Reduce average operating assets by \$50,000, with no change in controllable margin.
2. Increase sales \$100,000, with no change in the contribution margin percentage.

(a) Compute the controllable margin and the return on investment for 2010. (b) Compute the controllable margin and the expected return on investment for each proposed alternative.

### EXERCISES



Understand the concept of budgetary control.

(SO 1, 2, 3)

**E24-1** Jim Thome has prepared the following list of statements about budgetary control.

1. Budget reports compare actual results with planned objectives.
2. All budget reports are prepared on a weekly basis.
3. Management uses budget reports to analyze differences between actual and planned results and determine their causes.
4. As a result of analyzing budget reports, management may either take corrective action or modify future plans.

5. Budgetary control works best when a company has an informal reporting system.
6. The primary recipients of the sales report are the sales manager and the vice-president of production.
7. The primary recipient of the scrap report is the production manager.
8. A static budget is a projection of budget data at one level of activity.
9. Top management's reaction to unfavorable differences is not influenced by the materiality of the difference.
10. A static budget is not appropriate in evaluating a manager's effectiveness in controlling costs unless the actual activity level approximates the static budget activity level or the behavior of the costs is fixed.

**Instructions**


Identify each statement as true or false. If false, indicate how to correct the statement.

**E24-2** Pargo Company budgeted selling expenses of \$30,000 in January, \$35,000 in February, and \$40,000 in March. Actual selling expenses were \$31,000 in January, \$34,500 in February, and \$47,000 in March.

*Prepare and evaluate static budget report.*

(SO 2)

**Instructions**

- (a) Prepare a selling expense report that compares budgeted and actual amounts by month and for the year to date.
- (b) What is the purpose of the report prepared in (a), and who would be the primary recipient?
- (c)  What would be the likely result of management's analysis of the report?

**E24-3** Raney Company uses a flexible budget for manufacturing overhead based on direct labor hours. Variable manufacturing overhead costs per direct labor hour are as follows.

*Prepare manufacturing flexible overhead budget.*

(SO 3)

Indirect labor	\$1.00
Indirect materials	0.50
Utilities	0.40



Fixed overhead costs per month are: Supervision \$4,000, Depreciation \$1,500, and Property Taxes \$800. The company believes it will normally operate in a range of 7,000–10,000 direct labor hours per month.

**Instructions**

Prepare a monthly manufacturing overhead flexible budget for 2010 for the expected range of activity, using increments of 1,000 direct labor hours.

**E24-4** Using the information in E24-3, assume that in July 2010, Raney Company incurs the following manufacturing overhead costs.


*Prepare flexible budget reports for manufacturing overhead costs, and comment on findings.*

(SO 3)

Variable Costs		Fixed Costs	
Indirect labor	\$8,700	Supervision	\$4,000
Indirect materials	4,300	Depreciation	1,500
Utilities	3,200	Property taxes	800



**Instructions**

- (a) Prepare a flexible budget performance report, assuming that the company worked 9,000 direct labor hours during the month.
- (b) Prepare a flexible budget performance report, assuming that the company worked 8,500 direct labor hours during the month.
- (c)  Comment on your findings.

**E24-5** Trusler Company uses flexible budgets to control its selling expenses. Monthly sales are expected to range from \$170,000 to \$200,000. Variable costs and their percentage relationship to sales are: Sales Commissions 5%, Advertising 4%, Traveling 3%, and Delivery 2%. Fixed selling expenses will consist of Sales Salaries \$34,000, Depreciation on Delivery Equipment \$7,000, and Insurance on Delivery Equipment \$1,000.

*Prepare flexible selling expense budget.*

(SO 3)



**Instructions**

Prepare a monthly flexible budget for each \$10,000 increment of sales within the relevant range for the year ending December 31, 2010.



## 1092 Chapter 24 Budgetary Control and Responsibility Accounting


Prepare flexible budget reports for selling expenses.

(SO 3)

**E24-6** The actual selling expenses incurred in March 2010 by Trusler Company are as follows.

Variable Expenses		Fixed Expenses	
Sales commissions	\$9,200	Sales salaries	\$34,000
Advertising	7,000	Depreciation	7,000
Travel	5,100	Insurance	1,000
Delivery	3,500		

### Instructions

- Prepare a flexible budget performance report for March using the budget data in E24-5, assuming that March sales were \$170,000. Expected and actual sales are the same.
- Prepare a flexible budget performance report, assuming that March sales were \$180,000. Expected sales and actual sales are the same.
-  Comment on the importance of using flexible budgets in evaluating the performance of the sales manager.

Prepare flexible budget and responsibility report for manufacturing overhead.

(SO 3, 5)

**E24-7** Pletcher Company's manufacturing overhead budget for the first quarter of 2010 contained the following data.

Variable Costs		Fixed Costs	
Indirect materials	\$12,000	Supervisory salaries	\$36,000
Indirect labor	10,000	Depreciation	7,000
Utilities	8,000	Property taxes and insurance	8,000
Maintenance	6,000	Maintenance	5,000

Actual variable costs were: indirect materials \$13,800, indirect labor \$9,600, utilities \$8,700, and maintenance \$4,900. Actual fixed costs equaled budgeted costs except for property taxes and insurance, which were \$8,200.

All costs are considered controllable by the production department manager except for depreciation, and property taxes and insurance.

### Instructions

- Prepare a manufacturing overhead flexible budget report for the first quarter.
- Prepare a responsibility report for the first quarter.

Prepare flexible budget report, and answer question.

(SO 2, 3)

**E24-8** As sales manager, Terry Dewitt was given the following static budget report for selling expenses in the Clothing Department of Garber Company for the month of October.

**GARBER COMPANY**  
Clothing Department  
Selling Expense Budget Report  
For the Month Ended October 31, 2010

	Budget	Actual	Difference Favorable F Unfavorable U
Sales in units	8,000	10,000	2,000 F
Variable expenses			
Sales commissions	\$ 2,000	\$ 2,600	\$ 600 U
Advertising expense	800	850	50 U
Travel expense	3,600	4,000	400 U
Free samples given out	1,600	1,300	300 F
Total variable	8,000	8,750	750 U
Fixed expenses			
Rent	1,500	1,500	0-
Sales salaries	1,200	1,200	0-
Office salaries	800	800	0-
Depreciation—autos (sales staff)	500	500	0-
Total fixed	4,000	4,000	0-
Total expenses	\$12,000	\$12,750	\$ 750 U

As a result of this budget report, Terry was called into the president's office and congratulated on his fine sales performance. He was reprimanded, however, for allowing his costs to get out of control. Terry knew something was wrong with the performance report that he had been given. However, he was not sure what to do, and comes to you for advice.

### Instructions


- Prepare a budget report based on flexible budget data to help Terry.
- Should Terry have been reprimanded? Explain.

**E24-9** Pronto Plumbing Company is a newly formed company specializing in plumbing services for home and business. The owner, Paul Pronto, had divided the company into two segments: Home Plumbing Services and Business Plumbing Services. Each segment is run by its own supervisor, while basic selling and administrative services are shared by both segments.

Paul has asked you to help him create a performance reporting system that will allow him to measure each segment's performance in terms of its profitability. To that end, the following information has been collected on the Home Plumbing Services segment for the first quarter of 2010.

	<u>Budgeted</u>	<u>Actual</u>
Service revenue	\$25,000	\$26,000
Allocated portion of:		
Building depreciation	11,000	11,000
Advertising	5,000	4,200
Billing	3,500	3,000
Property taxes	1,200	1,000
Material and supplies	1,500	1,200
Supervisory salaries	9,000	9,400
Insurance	4,000	3,500
Wages	3,000	3,300
Gas and oil	2,700	3,400
Equipment depreciation	1,600	1,300

### Instructions

- Prepare a responsibility report for the first quarter of 2010 for the Home Plumbing Services segment.
-  Write a memo to Paul Pronto discussing the principles that should be used when preparing performance reports.

**E24-10** Rensing Company has two production departments, Fabricating and Assembling. At a department managers' meeting, the controller uses flexible budget graphs to explain total budgeted costs. Separate graphs based on direct labor hours are used for each department. The graphs show the following.

- At zero direct labor hours, the total budgeted cost line and the fixed cost line intersect the vertical axis at \$40,000 in the Fabricating Department and \$30,000 in the Assembling Department.
- At normal capacity of 50,000 direct labor hours, the line drawn from the total budgeted cost line intersects the vertical axis at \$150,000 in the Fabricating Department, and \$110,000 in the Assembling Department.

### Instructions

- State the total budgeted cost formula for each department.
- Compute the total budgeted cost for each department, assuming actual direct labor hours worked were 53,000 and 47,000, in the Fabricating and Assembling Departments, respectively.
- Prepare the flexible budget graph for the Fabricating Department, assuming the maximum direct labor hours in the relevant range is 100,000. Use increments of 10,000 direct labor hours on the horizontal axis and increments of \$50,000 on the vertical axis.

**E24-11** Lovell Company's organization chart includes the president; the vice president of production; three assembly plants—Dallas, Atlanta, and Tucson; and two departments within each plant—Machining and Finishing. Budget and actual manufacturing cost data for July 2010 are as follows:

*Finishing Department—Dallas:* Direct materials \$41,500 actual, \$45,000 budget; direct labor \$83,000 actual, \$82,000 budget; manufacturing overhead \$51,000 actual, \$49,200 budget.

*Machining Department—Dallas:* Total manufacturing costs \$220,000 actual, \$216,000 budget.

*Prepare and discuss a responsibility report.*

(SO 3, 5)

*State total budgeted cost formulas, and prepare flexible budget graph.*

(SO 3)

*Prepare reports in a responsibility reporting system.*

(SO 4)

## 1094 Chapter 24 Budgetary Control and Responsibility Accounting

*Atlanta Plant:* Total manufacturing costs \$424,000 actual, \$421,000 budget.

*Tucson Plant:* Total manufacturing costs \$494,000 actual, \$496,500 budget.

The Dallas plant manager's office costs were \$95,000 actual and \$92,000 budget. The vice president of production's office costs were \$132,000 actual and \$130,000 budget. Office costs are not allocated to departments and plants.

### Instructions

Using the format on page 1076, prepare the reports in a responsibility system for:

- The Finishing Department—Dallas.
- The plant manager—Dallas.
- The vice president of production.

Prepare a responsibility report for a cost center.

(SO 5)

**E24-12** The Mixing Department manager of Crede Company is able to control all overhead costs except rent, property taxes, and salaries. Budgeted monthly overhead costs for the Mixing Department, in alphabetical order, are:

Indirect labor	\$12,000	Property taxes	\$ 1,000
Indirect materials	7,500	Rent	1,800
Lubricants	1,700	Salaries	10,000
Maintenance	3,500	Utilities	5,000

Actual costs incurred for January 2010 are indirect labor \$12,200; indirect materials \$10,200; lubricants \$1,650; maintenance \$3,500; property taxes \$1,100; rent \$1,800; salaries \$10,000; and utilities \$6,500.

### Instructions

- Prepare a responsibility report for January 2010.
- What would be the likely result of management's analysis of the report?

Compute missing amounts in responsibility reports for three profit centers, and prepare a report.

(SO 6)

**E24-13** Gonzales Manufacturing Inc. has three divisions which are operated as profit centers. Actual operating data for the divisions listed alphabetically are as follows.

Operating Data	Women's Shoes	Men's Shoes	Children's Shoes
Contribution margin	\$240,000	(3)	\$180,000
Controllable fixed costs	100,000	(4)	(5)
Controllable margin	(1)	\$ 90,000	96,000
Sales	600,000	450,000	(6)
Variable costs	(2)	330,000	250,000

### Instructions

- Compute the missing amounts. Show computations.
- Prepare a responsibility report for the Women's Shoe Division assuming (1) the data are for the month ended June 30, 2010, and (2) all data equal budget except variable costs which are \$10,000 over budget.

Prepare a responsibility report for a profit center, and compute ROI.

(SO 6, 7)

**E24-14** The Sports Equipment Division of Brandon McCarthy Company is operated as a profit center. Sales for the division were budgeted for 2010 at \$900,000. The only variable costs budgeted for the division were cost of goods sold (\$440,000) and selling and administrative (\$60,000). Fixed costs were budgeted at \$100,000 for cost of goods sold, \$90,000 for selling and administrative and \$70,000 for noncontrollable fixed costs. Actual results for these items were:

Sales	\$880,000
Cost of goods sold	
Variable	409,000
Fixed	105,000
Selling and administrative	
Variable	61,000
Fixed	67,000
Noncontrollable fixed	80,000

### Instructions

- Prepare a responsibility report for the Sports Equipment Division for 2010.
- Assume, instead, the division is an investment center, and average operating assets were \$1,000,000. Compute ROI.

**E24-15** The Green Division of Frizell Company reported the following data for the current year.

Sales	\$3,000,000
Variable costs	1,950,000
Controllable fixed costs	600,000
Average operating assets	5,000,000

Compute ROI for current year and for possible future changes.

(SO 7)

Top management is unhappy with the investment center's return on investment (ROI). It asks the manager of the Green Division to submit plans to improve ROI in the next year. The manager believes it is feasible to consider the following independent courses of action.

1. Increase sales by \$320,000 with no change in the contribution margin percentage.
2. Reduce variable costs by \$100,000.
3. Reduce average operating assets by 4%.

**Instructions**

- (a) Compute the return on investment (ROI) for the current year.
- (b) Using the ROI formula, compute the ROI under each of the proposed courses of action. (Round to one decimal.)

**E24-16** The Medina and Ortiz Dental Clinic provides both preventive and orthodontic dental services. The two owners, Martin Medina and Olga Ortiz, operate the clinic as two separate investment centers: Preventive Services and Orthodontic Services. Each of them is in charge of one of the centers: Martin for Preventive Services and Olga for Orthodontic Services. Each month they prepare an income statement on the two centers to evaluate performance and make decisions about how to improve the operational efficiency and profitability of the clinic.

Prepare a responsibility report for an investment center.

(SO 7)

Recently they have been concerned about the profitability of the Preventive Services operations. For several months it has been reporting a loss. Shown below is the responsibility report for the month of May 2010.

	<u>Actual</u>	<u>Difference from Budget</u>
Service revenue	\$ 40,000	\$1,000 F
Variable costs:		
Filling materials	5,000	100 U
Novocain	4,000	200 U
Supplies	2,000	250 F
Dental assistant wages	2,500	–0–
Utilities	500	50 U
Total variable costs	<u>14,000</u>	<u>100 U</u>
Fixed costs:		
Allocated portion of receptionist's salary	3,000	200 U
Dentist salary	10,000	500 U
Equipment depreciation	6,000	–0–
Allocated portion of building depreciation	15,000	1,000 U
Total fixed costs	<u>34,000</u>	<u>1,700 U</u>
Operating income (loss)	<u>\$ (8,000)</u>	<u>\$ 800 U</u>

In addition, the owners know that the investment in operating assets at the beginning of the month was \$82,400, and it was \$77,600 at the end of the month. They have asked for your assistance in evaluating their current performance reporting system.

**Instructions**

- (a) Prepare a responsibility report for an investment center as illustrated in the chapter.
- (b)  Write a memo to the owners discussing the deficiencies of their current reporting system.

**E24-17** The Transamerica Transportation Company uses a responsibility reporting system to measure the performance of its three investment centers: Planes, Taxis, and Limos. Segment performance is measured using a system of responsibility reports and return on investment

Prepare missing amounts in responsibility reports for three investment centers.

(SO 7)

## 1096 Chapter 24 Budgetary Control and Responsibility Accounting

calculations. The allocation of resources within the company and the segment managers' bonuses are based in part on the results shown in these reports.

Recently, the company was the victim of a computer virus that deleted portions of the company's accounting records. This was discovered when the current period's responsibility reports were being prepared. The printout of the actual operating results appeared as follows.

	<u>Planes</u>	<u>Taxis</u>	<u>Limos</u>
Service revenue	\$ ?	\$500,000	\$ ?
Variable costs	5,500,000	?	320,000
Contribution margin	?	200,000	480,000
Controllable fixed costs	1,500,000	?	?
Controllable margin	?	80,000	240,000
Average operating assets	25,000,000	?	1,600,000
Return on investment	12%	10%	?

### Instructions

Determine the missing pieces of information above.



## EXERCISES: SET B

Visit the book's companion website at [www.wiley.com/college/weygandt](http://www.wiley.com/college/weygandt), and choose the Student Companion site, to access Exercise Set B.

## PROBLEMS: SET A



Prepare flexible budget and budget report for manufacturing overhead.

(SO 3)



**P24-1A** Malone Company estimates that 360,000 direct labor hours will be worked during the coming year, 2010, in the Packaging Department. On this basis, the following budgeted manufacturing overhead cost data are computed for the year.

<u>Fixed Overhead Costs</u>		<u>Variable Overhead Costs</u>	
Supervision	\$ 90,000	Indirect labor	\$126,000
Depreciation	60,000	Indirect materials	90,000
Insurance	30,000	Repairs	54,000
Rent	24,000	Utilities	72,000
Property taxes	18,000	Lubricants	18,000
	<u>\$222,000</u>		<u>\$360,000</u>

It is estimated that direct labor hours worked each month will range from 27,000 to 36,000 hours.

During October, 27,000 direct labor hours were worked and the following overhead costs were incurred.

Fixed overhead costs: Supervision \$7,500, Depreciation \$5,000, Insurance \$2,470, Rent \$2,000, and Property taxes \$1,500.

Variable overhead costs: Indirect labor \$10,360, Indirect materials, \$6,400, Repairs \$4,000, Utilities \$5,700, and Lubricants \$1,640.

### Instructions

(a) Total costs: DLH 27,000, \$45,500; DLH 36,000, \$54,500

(b) Total \$1,070 U

(a) Prepare a monthly manufacturing overhead flexible budget for each increment of 3,000 direct labor hours over the relevant range for the year ending December 31, 2010.

(b) Prepare a flexible budget report for October.

(c) Comment on management's efficiency in controlling manufacturing overhead costs in October.

Prepare flexible budget, budget report, and graph for manufacturing overhead.

(SO 3)

**P24-2A** Fultz Company manufactures tablecloths. Sales have grown rapidly over the past 2 years. As a result, the president has installed a budgetary control system for 2010. The following data were used in developing the master manufacturing overhead budget for the Ironing Department, which is based on an activity index of direct labor hours.

Variable Costs	Rate per Direct	Annual Fixed Costs	
	Labor Hour		
Indirect labor	\$0.40	Supervision	\$42,000
Indirect materials	0.50	Depreciation	18,000
Factory utilities	0.30	Insurance	12,000
Factory repairs	0.20	Rent	24,000

The master overhead budget was prepared on the expectation that 480,000 direct labor hours will be worked during the year. In June, 42,000 direct labor hours were worked. At that level of activity, actual costs were as shown below.

Variable—per direct labor hour: Indirect labor \$0.43, Indirect materials \$0.49, Factory utilities \$0.32, and Factory repairs \$0.24.

Fixed: same as budgeted.

**Instructions**

- (a) Prepare a monthly manufacturing overhead flexible budget for the year ending December 31, 2010, assuming production levels range from 35,000 to 50,000 direct labor hours. Use increments of 5,000 direct labor hours.
- (b) Prepare a budget report for June comparing actual results with budget data based on the flexible budget.
- (c) Were costs effectively controlled? Explain.
- (d) State the formula for computing the total budgeted costs for Fultz Company.
- (e) Prepare the flexible budget graph, showing total budgeted costs at 35,000 and 45,000 direct labor hours. Use increments of 5,000 direct labor hours on the horizontal axis and increments of \$10,000 on the vertical axis.

(a) Total costs: 35,000 DLH, \$57,000; 50,000 DLH, \$78,000

(b) Budget \$66,800  
Actual \$70,160

**P24-3A** Zelmer Company uses budgets in controlling costs. The August 2010 budget report for the company's Assembling Department is as follows.

State total budgeted cost formula, and prepare flexible budget reports for 2 time periods.

(SO 2, 3)

**ZELMER COMPANY**  
Budget Report  
Assembling Department  
For the Month Ended August 31, 2010

Manufacturing Costs	Budget	Actual	Difference
			Favorable F Unfavorable U
<b>Variable costs</b>			
Direct materials	\$ 48,000	\$ 47,000	\$1,000 F
Direct labor	54,000	51,300	2,700 F
Indirect materials	24,000	24,200	200 U
Indirect labor	18,000	17,500	500 F
Utilities	15,000	14,900	100 F
Maintenance	9,000	9,200	200 U
Total variable	<u>168,000</u>	<u>164,100</u>	<u>3,900 F</u>
<b>Fixed costs</b>			
Rent	12,000	12,000	—0—
Supervision	17,000	17,000	—0—
Depreciation	7,000	7,000	—0—
Total fixed	<u>36,000</u>	<u>36,000</u>	<u>—0—</u>
Total costs	<u>\$204,000</u>	<u>\$200,100</u>	<u>\$3,900 F</u>

The monthly budget amounts in the report were based on an expected production of 60,000 units per month or 720,000 units per year. The Assembling Department manager is pleased with the report and expects a raise, or at least praise for a job well done. The company president, however, is unhappy with the results for August, because only 58,000 units were produced.

## 1098 Chapter 24 Budgetary Control and Responsibility Accounting

### Instructions

(b) Budget \$198,400

(c) Budget \$215,200  
Actual \$216,510

Prepare responsibility report for a profit center.

(SO 6)

- (a) State the total monthly budgeted cost formula.  
 (b) Prepare a budget report for August using flexible budget data. Why does this report provide a better basis for evaluating performance than the report based on static budget data?  
 (c) In September, 64,000 units were produced. Prepare the budget report using flexible budget data, assuming (1) each variable cost was 10% higher than its actual cost in August, and (2) fixed costs were the same in September as in August.

**P24-4A** Jantzen Manufacturing Inc. operates the Patio Furniture Division as a profit center. Operating data for this division for the year ended December 31, 2010, are as shown below.

	<u>Budget</u>	<u>Difference from Budget</u>
Sales	\$2,500,000	\$60,000 F
Cost of goods sold		
Variable	1,300,000	41,000 F
Controllable fixed	200,000	6,000 U
Selling and administrative		
Variable	220,000	7,000 U
Controllable fixed	50,000	2,000 U
Noncontrollable fixed costs	70,000	4,000 U


In addition, Jantzen Manufacturing incurs \$180,000 of indirect fixed costs that were budgeted at \$175,000. Twenty percent (20%) of these costs are allocated to the Patio Furniture Division.

### Instructions

(a) Contribution margin \$94,000 F  
Controllable margin \$86,000 F

Prepare responsibility report for an investment center, and compute ROI.

(SO 7)

- (a) Prepare a responsibility report for the Patio Furniture Division for the year.  
 (b)  Comment on the manager's performance in controlling revenues and costs.  
 (c) Identify any costs excluded from the responsibility report and explain why they were excluded.

**P24-5A** Dinkle Manufacturing Company manufactures a variety of tools and industrial equipment. The company operates through three divisions. Each division is an investment center. Operating data for the Home Division for the year ended December 31, 2010, and relevant budget data are as follows.

	<u>Actual</u>	<u>Comparison with Budget</u>
Sales	\$1,500,000	\$100,000 favorable
Variable cost of goods sold	700,000	60,000 unfavorable
Variable selling and administrative expenses	125,000	25,000 unfavorable
Controllable fixed cost of goods sold	170,000	On target
Controllable fixed selling and administrative expenses	80,000	On target

Average operating assets for the year for the Home Division were \$2,500,000 which was also the budgeted amount.

### Instructions

(a) Controllable margin: Budget \$410; Actual \$425

- (a) Prepare a responsibility report (in thousands of dollars) for the Home Division.  
 (b) Evaluate the manager's performance. Which items will likely be investigated by top management?  
 (c) Compute the expected ROI in 2011 for the Home Division, assuming the following independent changes to actual data.  
 (1) Variable cost of goods sold is decreased by 6%.  
 (2) Average operating assets are decreased by 10%.

- (3) Sales are increased by \$200,000, and this increase is expected to increase contribution margin by \$90,000.

**P24-6A** Nieto Company uses a responsibility reporting system. It has divisions in Denver, Seattle, and San Diego. Each division has three production departments: Cutting, Shaping, and Finishing. The responsibility for each department rests with a manager who reports to the division production manager. Each division manager reports to the vice president of production. There are also vice presidents for marketing and finance. All vice presidents report to the president.

*Prepare reports for cost centers under responsibility accounting, and comment on performance of managers.*

(SO 4)

In January 2010, controllable actual and budget manufacturing overhead cost data for the departments and divisions were as shown below.

<u>Manufacturing Overhead</u>	<u>Actual</u>	<u>Budget</u>
Individual costs—Cutting Department—Seattle		
Indirect labor	\$ 73,000	\$ 70,000
Indirect materials	47,700	46,000
Maintenance	20,500	18,000
Utilities	20,100	17,000
Supervision	22,000	20,000
	<u>\$183,300</u>	<u>\$171,000</u>
Total costs		
Shaping Department—Seattle	\$158,000	\$148,000
Finishing Department—Seattle	210,000	206,000
Denver division	676,000	673,000
San Diego division	722,000	715,000

Additional overhead costs were incurred as follows: Seattle division production manager—actual costs \$52,500, budget \$51,000; vice president of production—actual costs \$65,000, budget \$64,000; president—actual costs \$76,400, budget \$74,200. These expenses are not allocated.

The vice presidents who report to the president, other than the vice president of production, had the following expenses.

<u>Vice president</u>	<u>Actual</u>	<u>Budget</u>
Marketing	\$133,600	\$130,000
Finance	109,000	105,000

**Instructions**

- (a) Using the format on page 1076, prepare the following responsibility reports.
- (1) Manufacturing overhead—Cutting Department manager—Seattle division.
  - (2) Manufacturing overhead—Seattle division manager.
  - (3) Manufacturing overhead—vice president of production.
  - (4) Manufacturing overhead and expenses—president.
- (b) Comment on the comparative performances of:
- (1) Department managers in the Seattle division.
  - (2) Division managers.
  - (3) Vice presidents.

- (a) (1) \$12,300 U  
 (2) \$27,800 U  
 (3) \$38,800 U  
 (4) \$48,600 U

**PROBLEMS: SET B**

**P24-1B** Ogleby Company estimates that 240,000 direct labor hours will be worked during 2010 in the Assembly Department. On this basis, the following budgeted manufacturing overhead data are computed.

*Prepare flexible budget and budget report for manufacturing overhead.*

(SO 3)





**1100 Chapter 24 Budgetary Control and Responsibility Accounting**


Variable Overhead Costs		Fixed Overhead Costs	
Indirect labor	\$ 72,000	Supervision	\$ 75,000
Indirect materials	48,000	Depreciation	30,000
Repairs	36,000	Insurance	12,000
Utilities	26,400	Rent	9,000
Lubricants	9,600	Property taxes	6,000
	<u>\$192,000</u>		<u>\$132,000</u>

It is estimated that direct labor hours worked each month will range from 18,000 to 24,000 hours. During January, 20,000 direct labor hours were worked and the following overhead costs were incurred.

Variable Overhead Costs		Fixed Overhead Costs	
Indirect labor	\$ 6,200	Supervision	\$ 6,250
Indirect materials	3,600	Depreciation	2,500
Repairs	2,400	Insurance	1,000
Utilities	1,700	Rent	850
Lubricants	830	Property taxes	500
	<u>\$14,730</u>		<u>\$11,100</u>

**Instructions**

- (a) Total costs: 18,000 DLH, \$25,400; 24,000 DLH, \$30,200
- (b) Budget \$27,000  
Actual, \$25,830

- (a) Prepare a monthly manufacturing overhead flexible budget for each increment of 2,000 direct labor hours over the relevant range for the year ending December 31, 2010.
- (b) Prepare a manufacturing overhead budget report for January.
- (c)  Comment on management's efficiency in controlling manufacturing overhead costs in January.

Prepare flexible budget, budget report, and graph for manufacturing overhead.

(SO 3)


**P24-2B** Parcels Manufacturing Company produces one product, Olpe. Because of wide fluctuations in demand for Olpe, the Assembly Department experiences significant variations in monthly production levels.

The annual master manufacturing overhead budget is based on 300,000 direct labor hours. In July 27,500 labor hours were worked. The master manufacturing overhead budget for the year and the actual overhead costs incurred in July are as follows.

Overhead Costs	Master Budget (annual)	Actual in July
Variable		
Indirect labor	\$330,000	\$29,000
Indirect materials	180,000	14,000
Utilities	90,000	8,100
Maintenance	60,000	5,400
Fixed		
Supervision	150,000	12,500
Depreciation	96,000	8,000
Insurance and taxes	60,000	5,000
Total	<u>\$966,000</u>	<u>\$82,000</u>

**Instructions**

- (a) Total costs: 22,500 DLH, \$75,000; 30,000 DLH, \$91,500
- (b) Budget \$86,000 Actual \$82,000

- (a) Prepare a monthly overhead flexible budget for the year ending December 31, 2010, assuming monthly production levels range from 22,500 to 30,000 direct labor hours. Use increments of 2,500 direct labor hours.
- (b) Prepare a budget report for the month of July 2010 comparing actual results with budget data based on the flexible budget.
- (c)  Were costs effectively controlled? Explain.
- (d) State the formula for computing the total monthly budgeted costs in the Parcels Manufacturing Company.
- (e) Prepare the flexible budget graph showing total budgeted costs at 25,000 and 27,500 direct labor hours. Use increments of 5,000 on the horizontal axis and increments of \$10,000 on the vertical axis.

**P24-3B** Ferneti Company uses budgets in controlling costs. The May 2010 budget report for the company's Packaging Department is as follows.

*State total budgeted cost formula, and prepare flexible budget reports for 2 time periods.*

(SO 2, 3)



**FERNETTI COMPANY**  
Budget Report  
Packaging Department  
For the Month Ended May 31, 2010

<u>Manufacturing Costs</u>	<u>Budget</u>	<u>Actual</u>	<u>Difference</u>
			<u>Favorable F</u> <u>Unfavorable U</u>
Variable costs			
Direct materials	\$ 40,000	\$ 41,000	\$1,000 U
Direct labor	45,000	47,000	2,000 U
Indirect materials	15,000	15,200	200 U
Indirect labor	12,500	13,000	500 U
Utilities	10,000	9,600	400 F
Maintenance	5,000	5,200	200 U
Total variable	<u>127,500</u>	<u>131,000</u>	<u>3,500 U</u>
Fixed costs			
Rent	10,000	10,000	-0-
Supervision	7,000	7,000	-0-
Depreciation	5,000	5,000	-0-
Total fixed	<u>22,000</u>	<u>22,000</u>	<u>-0-</u>
Total costs	<u>\$149,500</u>	<u>\$153,000</u>	<u>\$3,500 U</u>

The monthly budget amounts in the report were based on an expected production of 50,000 units per month or 600,000 units per year.

The company president was displeased with the department manager's performance. The department manager, who thought he had done a good job, could not understand the unfavorable results. In May, 55,000 units were produced.

**Instructions**

- (a) State the total budgeted cost formula.
- (b) Prepare a budget report for May using flexible budget data. Why does this report provide a better basis for evaluating performance than the report based on static budget data?
- (c) In June, 40,000 units were produced. Prepare the budget report using flexible budget data, assuming (1) each variable cost was 20% less in June than its actual cost in May, and (2) fixed costs were the same in the month of June as in May.

(b) Budget \$162,250

(c) Budget \$124,000  
Actual \$126,800

**P24-4B** Widnet Manufacturing Inc. operates the Home Appliance Division as a profit center. Operating data for this division for the year ended December 31, 2010, are shown below.

*Prepare responsibility report for a profit center.*

(SO 6)

	<u>Budget</u>	<u>Difference from Budget</u>
Sales	\$2,400,000	\$100,000 U
Cost of goods sold		
Variable	1,200,000	60,000 U
Controllable fixed	200,000	8,000 F
Selling and administrative		
Variable	240,000	8,000 F
Controllable fixed	60,000	4,000 U
Noncontrollable fixed costs	50,000	2,000 U

In addition, Widnet Manufacturing incurs \$150,000 of indirect fixed costs that were budgeted at \$155,000. Twenty percent (20%) of these costs are allocated to the Home Appliance Division. None of these costs are controllable by the division manager.

## 1102 Chapter 24 Budgetary Control and Responsibility Accounting

- (a) Contribution margin  
\$152,000 U  
Controllable margin  
\$148,000 U

Prepare responsibility report for an investment center, and compute ROI.

(SO 7)

### Instructions

- (a) Prepare a responsibility report for the Home Appliance Division (a profit center) for the year.  
(b) Comment on the manager's performance in controlling revenues and costs.  
(c) Identify any costs excluded from the responsibility report and explain why they were excluded.

**P24-5B** Schwinn Manufacturing Company manufactures a variety of garden and lawn equipment. The company operates through three divisions. Each division is an investment center. Operating data for the Lawnmower Division for the year ended December 31, 2010, and relevant budget data are as follows.

	<u>Actual</u>	<u>Comparison with Budget</u>
Sales	\$2,900,000	\$120,000 unfavorable
Variable cost of goods sold	1,400,000	90,000 unfavorable
Variable selling and administrative expenses	300,000	50,000 favorable
Controllable fixed cost of goods sold	270,000	On target
Controllable fixed selling and administrative expenses	140,000	On target

Average operating assets for the year for the Lawnmower Division were \$5,000,000 which was also the budgeted amount.

### Instructions

- (a) Controllable margin:  
Budget \$950  
Actual \$790

- (a) Prepare a responsibility report (in thousands of dollars) for the Lawnmower Division.  
(b) Evaluate the manager's performance. Which items will likely be investigated by top management?  
(c) Compute the expected ROI in 2011 for the Lawnmower Division, assuming the following independent changes.  
(1) Variable cost of goods sold is decreased by 15%.  
(2) Average operating assets are decreased by 20%.  
(3) Sales are increased by \$500,000 and this increase is expected to increase contribution margin by \$210,000.

## PROBLEMS: SET C

Visit the book's companion website at [www.wiley.com/college/veygandt](http://www.wiley.com/college/veygandt), and choose the Student Companion site, to access Problem Set C.



## WATERWAYS CONTINUING PROBLEM

(Note: This is a continuation of the Waterways Problem from Chapters 19 through 23.)

**WCP24** Waterways Corporation is continuing its budget preparations. This problem gives you static budget information as well as actual overhead costs and asks you to calculate amounts related to budgetary control and responsibility accounting.



Go to the book's companion website,  
[www.wiley.com/college/veygandt](http://www.wiley.com/college/veygandt),  
to find the completion of this problem.

# BROADENING YOUR PERSPECTIVE

## Decision Making Across the Organization



**BYP24-1** G-Bar Pastures is a 400-acre farm on the outskirts of the Kentucky Bluegrass, specializing in the boarding of broodmares and their foals. A recent economic downturn in the thoroughbred industry has led to a decline in breeding activities, and it has made the boarding business extremely competitive. To meet the competition, G-Bar Pastures planned in 2010 to entertain clients, advertise more extensively, and absorb expenses formerly paid by clients such as veterinary and blacksmith fees.

The budget report for 2010 is presented below. As shown, the static income statement budget for the year is based on an expected 21,900 boarding days at \$25 per mare. The variable expenses per mare per day were budgeted: Feed \$5, Veterinary fees \$3, Blacksmith fees \$0.30, and Supplies \$0.55. All other budgeted expenses were either semifixed or fixed.

During the year, management decided not to replace a worker who quit in March, but it did issue a new advertising brochure and did more entertaining of clients.<sup>1</sup>

### G-BAR PASTURES

Static Budget Income Statement  
Year Ended December 31, 2010

	<u>Actual</u>	<u>Master Budget</u>	<u>Difference</u>
Number of mares per day	52	60	8*
Number of boarding days	18,980	21,900	2,920*
Sales	\$379,600	\$547,500	\$167,900*
Less variable expenses:			
Feed	104,390	109,500	5,110
Veterinary fees	58,838	65,700	6,862
Blacksmith fees	6,074	6,570	496
Supplies	10,178	12,045	1,867
Total variable expenses	179,480	193,815	14,335
Contribution margin	200,120	353,685	153,565*
Less fixed expenses:			
Depreciation	40,000	40,000	-0-
Insurance	11,000	11,000	-0-
Utilities	12,000	14,000	2,000
Repairs and maintenance	10,000	11,000	1,000
Labor	88,000	96,000	8,000
Advertisement	12,000	8,000	4,000*
Entertainment	7,000	5,000	2,000*
Total fixed expenses	180,000	185,000	5,000
Net income	\$ 20,120	\$168,685	\$148,565*

\*Unfavorable.

### Instructions

With the class divided into groups, answer the following.

(a) Based on the static budget report:

- (1) What was the primary cause(s) of the loss in net income?
- (2) Did management do a good, average, or poor job of controlling expenses?
- (3) Were management's decisions to stay competitive sound?

<sup>1</sup>Data for this case are based on Hans Sprohge and John Talbott, "New Applications for Variance Analysis," *Journal of Accountancy* (AICPA, New York), April 1989, pp. 137-141.

## 1104 Chapter 24 Budgetary Control and Responsibility Accounting

- (b) Prepare a flexible budget report for the year based on boarding days.
- (c) Based on the flexible budget report, answer the three questions in part (a) above.
- (d) What course of action do you recommend for the management of G-Bar Pastures?

### Managerial Analysis

**BYP24-2** Fugate Company manufactures expensive watch cases sold as souvenirs. Three of its sales departments are: Retail Sales, Wholesale Sales, and Outlet Sales. The Retail Sales Department is a profit center. The Wholesale Sales Department is a cost center. Its managers merely take orders from customers who purchase through the company's wholesale catalog. The Outlet Sales Department is an investment center, because each manager is given full responsibility for an outlet store location. The manager can hire and discharge employees, purchase, maintain, and sell equipment, and in general is fairly independent of company control.

Jane Duncan is a manager in the Retail Sales Department. Richard Wayne manages the Wholesale Sales Department. Jose Lopez manages the Golden Gate Club outlet store in San Francisco. The following are the budget responsibility reports for each of the three departments.

	<b>Budget</b>		
	<b>Retail Sales</b>	<b>Wholesale Sales</b>	<b>Outlet Sales</b>
Sales	\$ 750,000	\$ 400,000	\$200,000
Variable costs			
Cost of goods sold	150,000	100,000	25,000
Advertising	100,000	30,000	5,000
Sales salaries	75,000	15,000	3,000
Printing	10,000	20,000	5,000
Travel	20,000	30,000	2,000
Fixed costs			
Rent	50,000	30,000	10,000
Insurance	5,000	2,000	1,000
Depreciation	75,000	100,000	40,000
Investment in assets	\$1,000,000	\$1,200,000	\$800,000

	<b>Actual Results</b>		
	<b>Retail Sales</b>	<b>Wholesale Sales</b>	<b>Outlet Sales</b>
Sales	\$ 750,000	\$ 400,000	\$200,000
Variable costs			
Cost of goods sold	195,000	120,000	26,250
Advertising	100,000	30,000	5,000
Sales salaries	75,000	15,000	3,000
Printing	10,000	20,000	5,000
Travel	15,000	20,000	1,500
Fixed costs			
Rent	40,000	50,000	12,000
Insurance	5,000	2,000	1,000
Depreciation	80,000	90,000	60,000
Investment in assets	\$1,000,000	\$1,200,000	\$800,000

#### Instructions

- (a) Determine which of the items should be included in the responsibility report for each of the three managers.
- (b) Compare the actual results with the budget. Decide which results should be called to the attention of each manager.

## Real-World Focus

**BYP24-3** Computer Associates International, Inc., the world's leading business software company, delivers the end-to-end infrastructure to enable e-business through innovative technology, services, and education. CA has 19,000 employees worldwide and recently had revenue of over \$6 billion.

Presented below is information from the company's annual report.

### COMPUTER ASSOCIATES INTERNATIONAL

#### Management Discussion

The Company has experienced a pattern of business whereby revenue for its third and fourth fiscal quarters reflects an increase over first- and second-quarter revenue. The Company attributes this increase to clients' increased spending at the end of their calendar year budgetary periods and the culmination of its annual sales plan. Since the Company's costs do not increase proportionately with the third- and fourth-quarters' increase in revenue, the higher revenue in these quarters results in greater profit margins and income. Fourth-quarter profitability is traditionally affected by significant new hirings, training, and education expenditures for the succeeding year.

#### Instructions

- (a) Why don't the company's costs increase proportionately as the revenues increase in the third and fourth quarters?
- (b) What type of budgeting seems appropriate for the Computer Associates situation?

## Exploring the Web

**BYP24-4** There are many useful online resources regarding budgeting. The following activity investigates the results of a comprehensive budgeting study performed by a very large international accounting firm.

#### Address:

[www.pwc.com/extweb/pwcpublishations.nsf/docid/C2D9FB96F792CFA3852572B10049C87D](http://www.pwc.com/extweb/pwcpublishations.nsf/docid/C2D9FB96F792CFA3852572B10049C87D),  
or go to [www.wiley.com/college/weygandt](http://www.wiley.com/college/weygandt)

#### Steps

Go to the address above, click on the link to download the full report, and then register to receive the report. (Remove the checkmark to receive future reports.)

#### Instructions

Scan the report to answer the following questions.

- (a) What percentage of respondents report that they are "very satisfied" with their financial planning process?
- (b) What are the top six key elements that companies forecast?
- (c) What is the percentage of total budget time spent on each of the following budgeting activities?
  - (1) Data collection/consolidation
  - (2) Analysis
  - (3) Strategy/target setting
  - (4) Review/approval
  - (5) Report preparation
- (d) What percentage of firms spend more than four months to complete a budget?
- (e) What percentage of surveyed firms update their forecasts on a monthly basis?



1106 Chapter 24 Budgetary Control and Responsibility Accounting

## Communication Activity

**BYP24-5** The manufacturing overhead budget for Edmonds Company contains the following items.

Variable costs		Fixed costs	
Indirect materials	\$24,000	Supervision	\$18,000
Indirect labor	12,000	Inspection costs	1,000
Maintenance expense	10,000	Insurance expense	2,000
Manufacturing supplies	<u>6,000</u>	Depreciation	<u>15,000</u>
Total variable	<u>\$52,000</u>	Total fixed	<u>\$36,000</u>

The budget was based on an estimated 2,000 units being produced. During the past month, 1,500 units were produced, and the following costs incurred.

Variable costs		Fixed costs	
Indirect materials	\$24,200	Supervision	\$19,300
Indirect labor	13,500	Inspection costs	1,200
Maintenance expense	8,200	Insurance expense	2,200
Manufacturing supplies	<u>5,100</u>	Depreciation	<u>14,700</u>
Total variable	<u>\$51,000</u>	Total fixed	<u>\$37,400</u>

### Instructions

- Determine which items would be controllable by Mark Farris, the production manager.
- How much should have been spent during the month for the manufacture of the 1,500 units?
- Prepare a manufacturing overhead flexible budget report for Mr. Farris.
- Prepare a responsibility report. Include only the costs that would have been controllable by Mr. Farris. Assume that the supervision cost above includes Mr. Farris's salary of \$10,000, both at budget and actual. In an attached memo, describe clearly for Mr. Farris the areas in which his performance needs to be improved.

## Ethics Case

**BYP24-6** National Products Corporation participates in a highly competitive industry. In order to meet this competition and achieve profit goals, the company has chosen the decentralized form of organization. Each manager of a decentralized investment center is measured on the basis of profit contribution, market penetration, and return on investment. Failure to meet the objectives established by corporate management for these measures has not been acceptable and usually has resulted in demotion or dismissal of an investment center manager.

An anonymous survey of managers in the company revealed that the managers feel the pressure to compromise their personal ethical standards to achieve the corporate objectives. For example, at certain plant locations there was pressure to reduce quality control to a level which could not assure that all unsafe products would be rejected. Also, sales personnel were encouraged to use questionable sales tactics to obtain orders, including gifts and other incentives to purchasing agents.

The chief executive officer is disturbed by the survey findings. In his opinion such behavior cannot be condoned by the company. He concludes that the company should do something about this problem.

### Instructions

- Who are the stakeholders (the affected parties) in this situation?
- Identify the ethical implications, conflicts, or dilemmas in the above described situation.
- What might the company do to reduce the pressures on managers and decrease the ethical conflicts?

(CMA adapted)



## "All About You" Activity

**BYP24-7** It is one thing to prepare a personal budget; it is another thing to stick to it. Financial planners have suggested various mechanisms to provide support for enforcing personal budgets. One approach is called "envelope budgeting."

### Instructions

Read the article provided at [http://en.wikipedia.org/wiki/Envelope\\_budgeting](http://en.wikipedia.org/wiki/Envelope_budgeting), and answer the following questions.

- (a) Summarize the process of envelope budgeting.
- (b) Evaluate whether you think you would benefit from envelope budgeting. What do you think are its strengths and weaknesses relative to your situation?

## Answers to Insight and Accounting Across the Organization Questions



### p. 1074 Competition versus Collaboration

Q: How might managers of separate divisions be able to reduce division costs through collaboration?

A: *Division managers might reduce costs by sharing design and marketing resources or by jointly negotiating with suppliers. In addition, they can reduce the need to hire and lay off employees by sharing staff across divisions as human resource needs change.*

### p. 1083 Does Hollywood Look at ROI?

Q: What might be the reason that movie studios do not produce G-rated movies as often as R-rated movies?

A: *Perhaps Hollywood believes that big-name stars or large budgets, both of which are typical of R-rated movies, sell movies. However, one study recently concluded, "We can't find evidence that stars help movies, and we can't find evidence that bigger budgets increase return on investment." Some film companies are going out of their way to achieve at least a PG rating.*

## Answers to Self-Study Questions

1. c   2. d   3. c   4. b   5. b   6. a   7. d   8. a   9. d   10. d   11. a   12. c   13. b  
14. b   15. d