## C H A P T E R 2

## UNDERSTANDING FINANCIAL STATEMENTS

## I NTROD UCTIO N

This chapter discusses the two major financial statements-the balance sheet and the income statement. In hospitality operations, balance sheets are normally prepared for an overall operation, and income statements are prepared by each of the subordinate operating departments (or divisions). Two basic classifications of costs, direct and indirect, are incurred in a hospitality operation.

Departmental income statements report operating costs that are classified as direct costs, that are directly traceable to the department. Indirect costs are costs that are not easily traceable to a specific department, and are usually undistributed costs. Undistributed costs are normally incurred to support the overall facility and will normally appear on a summary income statement. All costs shown in a generic income statement will be shown as cost of sales, and named expenses.

Cost of sales was discussed in an example in Chapter 1. Calculating the cost of sales will be expanded in this chapter. Four methods of calculating the value of inventory will be discussed and how to adjust the cost of food and beverages used to arrive at net cost of sales will be explained. These adjustments may include interdepartmental transfers, as well as adjustments for employee and promotion meals.

Responsibility accounting will be introduced and discussed for profit and cost centers. Allocation methods used to distribute indirect costs to departments will be discussed, as will the effect that a change to sales mix among departments would have on overall profit.

A sample balance sheet will be illustrated. An account called retained earnings is demonstrated as the link between the income statement and balance sheet in a corporate
business entity. This section will also discuss the difference between the equity section of a balance sheet for
sole proprietorships, partnership, and incorporated business entities.

## CHAPTER OBJECT IVES

After studying this chapter and completing the assigned exercises and problems, the reader should be able to

1 Explain the main purpose of the income statement and balance sheet.
2 Explain the value of a uniform system of accounts.
3 Define and explain the difference between a balance sheet and an income statement.
4 Using examples, describe the difference between a direct cost, indirect cost, and undistributed costs (expenses).
5 Calculate the value of ending inventory using each method discussed, and demonstrate possible adjustments to find the net cost of sales.
6 Prepare income statements in proper format.
7 Discuss the concept of responsibility accounting.
8 Explain the effect a specific change in interdepartmental revenue mix will have on overall operating income (income before tax).
9 List and give an example of each of the six major categories (classifications) of accounts that may appear on a balance sheet.
10 Define, calculate, and explain the purpose of retained earnings.
11 Prepare a balance sheet in proper format and state the two forms of balance sheet presentations. Discuss the importance and limitations of a balance sheet.

## UNDERSTANDING FINANCIAL STATEMENTS

Being able to understand financial statements does not necessarily mean you must be able to prepare them. However, if you are able to prepare a set of statements, primarily a balance sheet and income statement, then you have the advantage of being able to analyze the information in greater depth and, therefore, use it to enhance the results of a business operation.

Although there are many internal (various levels of management) and external users, (employees, stockholders, creditors, county, and local and national
regulatory agencies), the primary emphasis of this text is for use of internal management, from the department head up to general management. Managers at all levels need financial information if they are to make rational decisions for the immediate or near future. Rational decisions and the financial statements are sources of required information.

## UNIFORM SYSTEM OF ACCOUNTS

Most organizations in the hospitality industry (hotels, motels, resorts, restaurants, and clubs) use the Uniform System of Accounts appropriate to their particular segment of the industry. The Hotel Association of New York initiated the original Uniform System of Accounts for Hotels (USAH) in 1925. The system was designed for classifying, organizing, and presenting financial information so that uniformity prevailed and comparison of financial data among hotels was possible.

One of the advantages of accounting uniformity is that information can be collected on a regional or national basis from similar organizations within the hospitality industry. This information can then be reproduced in the form of average figures or statistics. In this way, each organization can compare its results with the averages. This does not mean that individual hotel operators, for example, should be using national hotel average results as a goal for their own organization. Average results are only a standard of comparison, and there are many reasons why the individual organization's results may differ from industry averages. But, by making the comparison, determining where differences exist, and subsequently analyzing the causes, an individual operator at least has information from which he or she can then decide whether corrective action is required within the operator's own organization.

## INCOME STATEMENT AND BALANCE SHEET

Although the balance sheet and the income statement are treated separately in this chapter, they should, in practice, be read and analyzed jointly. The relationship between the two financial statements must always be kept in mind. This relationship becomes extremely clear when one compares the definition and objective of each statement.

- The purpose of the balance sheet is to provide at a specific point in time a picture of the financial condition of a business entity relative to its assets, liabilities, and ownership equity. By category, each individual account, by name and its numerical balance, is shown at the end of a specific date, which is normally the ending date of an operating period.
- The purpose of the income statement is to show economic results of profitmotivated operations of a business over a specific operating period.
- The ending date of an operating period indicated in the income statement is normally the specific date of the balance sheet.

An annual operating period may be any 12-month period beginning on any date and ending on any date 12 months later. In addition, a business entity may use an interim reporting period such as weekly, monthly, quarterly, or semiannually.

## INCOME STATEMENTS

The balance sheet presentations differ little from one type of hospitality business to another. As well, the presentations are quite similar to most presentations of non-hospitality-business operations. However, this similarity is not true of the income statement.

Most hospitality operations are departmentalized, and the income statement needs to show the operating results department by department as well as for the operation as a whole. Exactly how such an income statement is prepared and presented is dictated by the management needs of each individual establishment. As a result, the income statement for one hotel may be completely different from another, and income statements for other branches of the industry (resorts, chain hotels, small hotels, motels, restaurants, and clubs) will likely be very different from each other because each has to be prepared to reflect operating results that will allow management to make rational decisions about the business's future.

Discussion of the income statement in this chapter will be in general terms only and not limited to any one branch of the hospitality industry. The USAH recommends a long-form income statement, though it is not mandatory.

## REVENUE

Revenue is defined as an inflow of assets received in exchange for goods or services provided. In a hotel, revenue is derived from renting guest rooms, while in a restaurant, revenue is from the sale of food and beverages. Revenue is also derived from many other sources such as catering, entertainment, casinos, space rentals, vending machines, and gift shop operations, located on or immediately adjacent to the property. It is not unusual to receive nonoperating revenues, which are classified as "Other income" items in the income statement following operating income (before income tax). Other income items are nonoperating revenues not directly related to the primary purpose of the business, which is the sale of goods and services. Other income includes items such as interest income on certificates of deposits, notes receivable or investment dividends, and potentially franchise or management fees. When such revenue is received, it should be shown following operating income in a classified income statement before taxes are determined.

The accrual accounting method recognizes revenue when earned, not necessarily when it is received. Revenue is created and recorded to a revenue
account by receipt of cash or the extension (giving) of credit. The recognition of revenue will, in theory, increase ownership equity. In reality, ownership equity will increase or decrease after expenses incurred are matched to revenues (matching principle) earned during an operating period. Ownership equity increases if revenues exceed expenses $(R>E)$; likewise, if revenue is less than expenses ( $R<E$ ), ownership equity will decrease.

As discussed in Chapter 1, the cash basis of accounting requires that cash change hands for the recognition of revenues and/or expenses; in theory, the capital account increases with the sale of goods or services and decreases as expense items are paid. The remainder of the text will be discussed based on accrual accounting.

## EXPENSES

Expenses are defined as an outflow of assets consumed to generate revenue. The accrual method requires that expenses be recorded when incurred, not necessarily when payment is made. Although the recognition of expenses in theory increases ownership equity, in reality ownership equity will increase or decrease only after expenses incurred are matched to revenues earned at the end of an operating period.

Determining the increase or decrease in ownership equity follows the same revenue minus expense $(R-E)$ functions noted in the preceding revenue discussion. For example, in a restaurant, food inventory is purchased for resale and recorded as an asset; the cost of sales for a food operation is not recognized until it has been determined how much food inventory was used.

## DEPARTMENTAL CONTRIBUTORY INCOME

The term departmental contributory income is used in this text and shows departmental revenue minus its direct costs to arrive at income before tax.

By matching direct expenses with the various revenue-producing activities of a department, a useful evaluation tool is created. The departmental income statement provides the basis for an effective evaluation of the department's performance over an operating period. In general, the format in condensed form of a departmentalized operation is shown below, using random numbers:


It is essential that the departmental contributory income statement provide maximum detail by showing each revenue and expense account to provide the information needed by management to conduct an effective and efficient evaluation.

If departmental managers are to be given authority and responsibility for their departmental operations, they need to be provided with more accounting information than revenue less total expenses. In other words, expenses need to be listed item-by-item, otherwise department heads will have no knowledge about which expenses are out of line, and where additional controls may need to be implemented to curb those expenditures.

## ANSWERS TO QUESTIONS

The income statement can provide answers to some important questions:

- What were sales last month? How does that compare with the month before and with the same month last year?
$\square$ Did last month's sales keep pace with the increased cost of food, beverages, labor, and other expenses?
- What were the sales, by department, for the operating period?
- Which department is operating most effectively?
- Is there a limit to maximum potential sales? Have we reached that limit? If so, can we increase sales in the short run by increasing room rates and menu prices or in the long run by expanding the premises?
$\square$ What were the food and beverage cost and gross profit percentages? Did these meet our objectives?
- Were operating costs (such as for labor and supplies) in line with what they should be for the sales level achieved?
- How did the operating results for the period compare with budget forecasts?

The income statement shows the operating results of a business for a period of time (week, month, quarter, half-year, or year). The amount of detail concerning revenue and expenses to be shown on the income statement depends on the type and size of the hospitality establishment and the needs of management for more or less information.

For example, a typical hotel would prepare departmental income statements for each of its operating departments. Exhibit 2.1 illustrates an income statement for the food department of a small hotel. Similar statements would be prepared for the beverage department and the rooms department. Others would be prepared for any other operating departments large enough to warrant it. Alternatively, other smaller departments could be grouped together into a single income statement. This would include operating areas such as newsstands, gift shops, laundry, telephone, parking, and so on.

In many establishments, it is not possible to show the food department as a separate entity from the beverage department because these two departments work closely together. They have many common costs that cannot accurately be identified as belonging to one or the other. For example, it is difficult to determine

| Hotel Theoretical Departmental Income Statement-Food Department For the Year Ending December 31, 0006 |  |  |
| :---: | :---: | :---: |
| Revenue |  |  |
| Dining room | \$201,600 |  |
| Coffee shop | 195,900 |  |
| Banquets | 261,200 |  |
| Room service | 81,700 |  |
| Bar | 111,200 |  |
| Total Revenue |  | \$851,600 |
| Cost of Sales |  |  |
| Cost of food used | \$352,500 |  |
| Less: employee meals | $(30,100)$ |  |
| Net Food Cost |  | $(322,400)$ |
| Gross Profit |  | \$529,200 |
| Departmental Expenses |  |  |
| Salaries and wages | \$277,400 |  |
| Employee benefits | 34,500 |  |
| Total payroll and related expenses | \$311,900 |  |
| China, glassware | 7,100 |  |
| Cleaning supplies | 6,400 |  |
| Decorations | 2,200 |  |
| Guest supplies | 6,500 |  |
| Laundry | 15,500 |  |
| Licenses | 3,400 |  |
| Linen | 3,700 |  |
| Menus | 2,000 |  |
| Miscellaneous | 800 |  |
| Paper supplies | 4,900 |  |
| Printing, stationery | 4,700 |  |
| Silver | 2,300 |  |
| Uniforms | 3,100 |  |
| Utensils | 1,700 |  |
| Total Operating Expenses |  | $(376,200)$ |
| Departmental Contributory Income (Loss) |  | $\underline{\$ 153,000}$ |

EXHIBIT 2.1
Sample Departmental Income Statement
when a server is working for the food department and when a server is working for the beverage department if they serve both food and beverages. Because of this, there is only one income statement produced for the food and beverage department. Wherever possible, it is suggested that the revenue and expenses for food be kept separate from the revenue and expenses for beverages because in this way the income statements are more meaningful. In this
text, therefore, food and beverage are shown as separate operating departments, even though it is recognized that, in practice, this may not always be possible. If necessary, the two separate sets of figures can always be added together later to give a combined food and beverage income statement for comparison with other establishments or with industry averages.

As you review the sample departmental income statement in Exhibit 2.1, take particular note of the following: (1) each revenue division is identified; (2) the cost of employee meals is deducted from the cost of sales. The cost of employee meals is the actual cost of the food, and no sales revenue was generated or received from those meals. The term net food cost implies that all necessary adjustments to cost of food sales have been made, and represent the actual cost incurred to produce the sales revenue. Cost of employee meals became a part of the employee benefits reported as a departmental expense.

Each department's income statement reports its share of the expenses directly attributable to it, which is the responsibility of the department head to control. These direct costs would include cost of sales (food cost, beverage cost); salaries, wages, and related payroll costs of the employees working in the department; and linen, laundry, and all the various other categories of supplies required to operate the department. The resulting departmental incomes (revenue less direct expenses) are sometimes referred to as contributory incomes because they contribute to the indirect, undistributed expenses not charged to the operating departments. The individual departmental contributory incomes are added together to give a combined, total departmental income as demonstrated in Exhibit 2.2. As mentioned earlier, a departmental income statement similar to Exhibit 2.1 would support each departmental income figure.

From the total departmental income figure are deducted what are sometimes referred to as indirect expenses. Indirect expenses are those that are not directly related to the revenue-producing activities of the operation. Indirect expenses are broken down into two separate categories: the undistributed operating expenses and the fixed charges. Undistributed operating expenses include costs such as administrative and general, marketing, property operation and maintenance, and energy costs. Other expenses that might be included in this category, in certain establishments, are management fees, franchise fees, and guest entertainment. Most undistributed operating expenses are considered controllable, but not by the operating department heads or managers. They are controllable by and are the responsibility of the general manager. Note that undistributed operating expenses include the cost of salaries and wages of employees involved.

Income before fixed charges is an important line on an income statement because it measures the overall efficiency of the operation's management. The fixed charges are not considered in this evaluation because they are capital costs resulting from owning or renting the property (that is, from the investment in land and building) and are thus not controllable by the establishment's operating management.


## EXHIBIT 2.2

Sample Summary Income Statement

The final levels of expenses, the fixed charges, are then deducted. In this category are such expenses as rent, property taxes, insurance, interest, and depreciation. Income tax is then deducted to arrive at the final net income. The net income figure is transferred to the statement of retained earnings and eventually appears on the balance sheet; the transfer will be illustrated later in the chapter.

Each of the expenses listed in Exhibit 2.2 would have a separate schedule listing all detailed costs making up total expenses, if warranted by the size of the establishment. For example, the administrative and general expense schedule could show separate cost figures for such items as the following:

■ Salary of general manager and other administrative employees

- Secretarial and general office salaries/wages

■ Accountant and accounting office personnel salaries/wages

- Data processing and/or credit office employees' salaries/wages
- Postage and fax expense
- Printing and stationery expense
- Legal expense
- Bad debts and/or collection expenses
- Dues and subscriptions expense
- Travel expense

Exhibit 2.3 shows another method of income statement presentation. Accompanying this income statement should be separate departmental income statements for each operating department, similar to the one for the food department illustrated in Exhibit 2.1. Also, where necessary, the income statement should be accompanied by schedules giving more detail of the unallocated expenses.

## Hotel Theoretical Income Statement For the Year Ending December 31, 0006

|  | Net Revenue | Cost of Sales | Payroll Other Expenses | Operating Expenses | Operating Income |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Departmental Income (Loss) |  |  |  |  |  |
| Rooms | \$1,150,200 |  | \$251,400 | \$115,900 | \$ 782,900 |
| Food | 851,600 | \$322,400 | 311,900 | 64,300 | 153,000 |
| Beverage | 327,400 | 106,800 | 86,300 | 15,200 | 119,100 |
| Miscellaneous income | 38,200 | 10,600 | 8,700 | 300 | 19,600 |
| Operating Department Totals | \$2,367,400 | \$439,800 | $\underline{\$ 658,300}$ | \$195,700 | \$1,074,600 |
| Undistributed Operating Expenses |  |  |  |  |  |
| Administrative and general |  |  | \$115,600 | \$122,400 |  |
| Marketing |  |  | 35,100 | 31,800 |  |
| Property operation and maintenance |  |  | 52,900 | 49,100 |  |
| Energy costs |  |  | 15,800 | 55,200 |  |
| Total Undistributed Operating Expenses |  |  | $\underline{\$ 219,400}$ | \$258,500 | ( 477,900) |
| Income before Fixed Charges |  |  |  |  | \$ 596,700 |
| Fixed Charges |  |  |  |  |  |
| Property taxes |  |  |  | \$ 98,800 |  |
| Insurance |  |  |  | 22,400 |  |
| Interest |  |  |  | 82,400 |  |
| Depreciation |  |  | a -20 | 160,900 | 364,500) |
| Operating Income (before tax) |  |  |  |  | \$ 232,200 |
| Income tax |  |  |  |  | ( 114,700) |
| Net Income |  |  |  |  | \$ 117,500 |

Alternative Summary Income Statement

## COST OF SALES AND NET COST OF SALES

In Exhibit 2.1, note that net food cost has been deducted from revenue to arrive at gross margin (gross profit) before deducting other departmental expenses. To arrive at net food cost and net beverage cost, some calculations are necessary to match up food and beverage sales with cost of the food and beverage inventory sold, or to find the net cost of sales incurred to generate those sales. In the first chapter, we discussed methods to determine the monthly cost of sales using the periodic inventory control method. The periodic method relies on a physical count and costing of the inventory to determine the cost of sales. Using the periodic method normally will not provide a record of inventory available for sale on any particular day. The calculation of cost of sales using the periodic method is as follows:

## Beginning inventory (BI) + Purchases - Ending inventory (EI) $=$ Cost of sales (CS)

However, this equation determines the cost of inventory used. Later in the chapter, the cost of inventory used will be adjusted to the cost of inventory sold.

The control of inventory for sale is important for a number of reasons:

- If inventories are not known, the possibility exists that inventory may run out and sales will stop. This situation will certainly create customer dissatisfaction.
- If inventories are in excess of projected needs, spoilage may occur, creating an additional cost that could be avoided.
$\square$ If inventories are maintained in excess of the amount needed, holding excess inventories will create an additional cost such as space costs, utilities costs, and inventory holding costs.
- If inventories are maintained in excess of the amount needed, the risk of theft is increased and, therefore, the cost of stolen inventory is higher.

Even though the perpetual inventory method requires keeping detailed records, it will provide the daily information needed to achieve excellent inventory control. As Exhibit 2.4 indicates, the perpetual method requires continuous updating, showing the receipt and sale of inventory, and allows for the maintenance of a daily running balance of inventory available. To verify that the perpetual inventory record is correct, a physical inventory count must be done.

There are several inventory valuation methods, of which we will discuss four. We will use the information in Exhibit 2.4 to illustrate each of the methods.

1. Specific item cost
2. First-in, first-out
3. Last-in, first-out
4. Weighted average cost

| Item Description: Chateau Dupont |  |  | Balance Available |  |
| :---: | :---: | :---: | :---: | :---: |
| June | Received Purchased | Issued Sales | Units | Cost |
| 01 |  |  | 2 | \$18.00 |
| 02 | 6 |  | 8 | \$20.00 |
| 08 |  | 3 | 5 |  |
| 12 |  | 3 | 2 |  |
| 15 | 10 |  | 12 | \$22.00 |
| 20 |  | 3 | 9 |  |
| 24 |  | 3 | 6 |  |
| 28 | 6 |  | 12 | \$19.00 |
| 30 |  | 2 | 10 |  |
|  |  |  |  |  |

EXHIBIT 2.4(a)
Specific Identification Perpetual Control Record

## Specific Item Cost

The specific identification method records the actual cost of each item. In Exhibit 2.4(a), 10 items remain in stock at month end- 2 from the purchase of June 2, 4 from the purchase of June 15, and 4 from the purchase of June 28. The value of ending inventory ( $E I$ ) on June 30 would be

$$
\begin{array}{cccc}
(2 @ \$ 20) & +(4 @ \$ 22) & +(4 @ \$ 19)=E I \\
\$ 40 & +\$ 88 & +\$ 76=\$ 204 \text { Total EI }
\end{array}
$$

The cost of sales used would be

$$
\$ 36 B I+\$ 454 \text { Purchases }-\$ 204 E I=\$ 286 \text { Cost of sales }(C S)
$$

This method of inventory valuation is normally used only for high-cost items, such as high-cost wines and expensive cuts of meat.

## First-in, First-out Method

Commonly referred to as FIFO, the first-in, first-out inventory control procedure works as the name implies-the first items received are assumed to be the first items sold. Simply put, the oldest items are assumed to be sold first,

| Item Description: Chateau Dupont |  |  | Balance Available |
| :---: | :---: | :---: | :---: |
| June | Purchase Received | Issued Sales | Units $\times$ Cost $=$ Tot. Cost |
| 01 | Bal. Fwd. |  | $2 @ \$ 18.00=\$ 36.00$ |
| 02 | 6 @ \$20.00 = \$120.00 |  | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 6 @ \$ 20.00=\$ 120.00 \\ & \hline \end{aligned}$ |
| 08 |  | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 1 @ \$ 20.00=\$ 20.00 \end{aligned}$ | $5 @ \$ 20.00=\$ 100.00$ |
| 12 |  | 3 @ \$20.00 = \$ 60.00 | $2 @ \$ 20.00=\$ 40.00$ |
| 15 | 10 @ $22.00=\$ 220.00$ |  | $\begin{array}{r} 2 @ \$ 20.00=\$ 40.00 \\ 10 @ \$ 22.00=\$ 220.00 \\ \hline \end{array}$ |
| 20 |  | $\begin{aligned} & 2 @ \$ 20.00=\$ 40.00 \\ & 1 @ \$ 22.00=\$ 22.00 \end{aligned}$ | $9 @ \$ 22.00=\$ 198.00$ |
| 24 |  | $3 @ \$ 22.00=\$ 66.00$ | $6 @ \$ 22.00=\$ 132.00$ |
| 28 | 6 @ \$19.00=\$114.00 |  | $\begin{aligned} & 6 @ \$ 22.00=\$ 132.00 \\ & 6 @ \$ 19.00=\$ 114.00 \\ & \hline \end{aligned}$ |
| 30 |  | $2 @ \$ 22.00=\$ 44.00$ | $\begin{aligned} & 4 @ \$ 22.00=\$ 88.00 \\ & 6 @ \$ 19.00=\$ 114.00 \\ & \hline \end{aligned}$ |
| Ending | Purchases $=\underline{\underline{\$ 454.00}}$ | Cost of sales $=\underline{\underline{\$ 288.00}}$ | Ending Inv. $=\underline{\underline{\mathbf{2 0 2 . 0 0}}}$ |

## EXHIBIT 2.4(b)

FIFO Perpetual Inventory Control Record
leaving the newest items in inventory. This method, when practiced, is based on the concept of stock rotation. Stock rotation is essential with perishable stock, and will help ensure that inventory stock is sold before it spoils. As shown in Exhibit 2.4(b), using FIFO, the ending inventory is valued at $\$ 202$.

The value of ending inventory, cost of sales, and purchases can be verified as follows:

$$
\$ 36 B I+\$ 454 \text { Purchases }-\$ 202 E I=\$ 288 \text { Cost of sales }(C S)
$$

FIFO creates tiers of inventory available. The first tier is the oldest, the second tier the next oldest, and so on. The oldest units are always assumed to be sold first. The sales flow is from top to bottom of the inventory tiers. Any tier is split to account for the number of units sold. Cost of sales is determined at any time by adding the issued-sales column. The value of ending inventory is the total cost shown in the final tier of the balance available column. FIFO uses
the earliest costs and, in a period of inflationary costs, lowers cost of sales and increases the value of ending inventory.

## Last-in, First-out Method

Commonly referred to as LIFO, the last-in, first-out inventory control procedure works as the name implies-the newest or last items received are assumed to be the first items sold, leaving the oldest items in inventory. Simply put, the newest items are assumed to be sold first. LIFO uses the same concept as FIFO. As shown in Exhibit 2.4(c), using LIFO, the ending inventory is valued at $\$ 200$.

| Item Description: Chateau Dupont |  |  | Balance Available |
| :---: | :---: | :---: | :---: |
| June | Purchase Received | Issued Sales | Units $\times$ Cost $=$ Tot. Cost |
| 01 | Bal. Fwd. |  | 2 @ $\$ 18.00=\$ 36.00$ |
| 02 | 6 @ $\$ 20.00=\$ 120.00$ |  | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 6 @ \$ 20.00=\$ 120.00 \end{aligned}$ |
| 08 |  | 3 @ \$20.00 $=\$ 60.00$ | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 3 @ \$ 20.00=\$ 60.00 \\ & \hline \end{aligned}$ |
| 12 |  | 3 @ $\$ 20.00=\$ 60.00$ | 2 @ \$18.00 = \$ 36.00 |
| 15 | 10 @ \$22.00 = \$220.00 |  | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 10 @ \$ 22.00=\$ 220.00 \\ & \hline \end{aligned}$ |
| 20 |  | 3 @ \$22.00 = \$ 66.00 | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 7 @ \$ 22.00=\$ 154.00 \end{aligned}$ |
| 24 |  | 3 @ $\$ 22.00=\$ 66.00$ | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 4 @ \$ 22.00=\$ 88.00 \\ & \hline \end{aligned}$ |
| 28 | $6 @ \$ 19.00=\$ 114.00$ |  | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 4 @ \$ 22.00=\$ 88.00 \\ & 6 @ \$ 19.00=\$ 114.00 \\ & \hline \end{aligned}$ |
| 30 |  | 2 @ $\$ 19.00=\$ 38.00$ | $\begin{aligned} & 2 @ \$ 18.00=\$ 36.00 \\ & 4 @ \$ 22.00=\$ 88.00 \\ & 4 @ \$ 19.00=\$ 76.00 \\ & \hline \end{aligned}$ |
| Ending | Purchases $=\underline{\underline{\$ 454.00}}$ | Cost of sales $=\underline{\underline{\mathbf{2 9 0}} \text { (00 }}$ | Ending Inv. $=\underline{\underline{\mathbf{2 0 0 . 0 0}}}$ |

EXHIBIT 2.4(c)
LIFO Perpetual Inventory Control Record

The value of ending inventory, cost of sales, and purchases can be verified as follows:
$\$ 36 B I+\$ 454$ Purchases $-\$ 200 E I=\underline{\underline{\$ 290}}$ Cost of sales $(C S)$
Sales flow is from the bottom to top of the inventory tiers with the LIFO method. Any tier will be split to account for the number of units sold. Cost of sales is determined at any point by adding the issued-sales column. The value of ending inventory is the total cost shown in the final tier of the balance available column.

Use of the LIFO method during inflationary periods will cause an increase to cost of sales and will reduce gross margin. This effect is true because newer inventory purchases will cost more than older inventory purchases. In some cases, this method is favored based on the following logic: If inventory cost is increasing, then generally revenues are expected to increase since cost increases are passed on through higher selling prices. Higher costs will be matched to higher revenues, resulting in a lower taxable operating income and lower taxes. LIFO will also reduce the value of inventory for resale and will be lower than if FIFO was used.

This logic can be seen in some respects by viewing the difference in the value of ending inventories when the FIFO and LIFO Exhibits 2.4(a) and 2.4(b), are reviewed.

## Weighted Average Cost Method

This method calculates a weighted average for each item of inventory available for sale. Each time additional inventory is received into stock, a new weighted average cost is calculated. All items of inventory will be reported at their weighted average cost per unit. With reference to Exhibit 2.4(d), at the beginning of June, there were two items on hand at $\$ 18$ each at a total value of $\$ 36$. On June 2, six additional items at $\$ 20$ each with a total value of $\$ 120$ were added into stock. The new cost of the total eight items at weighted average is $\$ 19.50$ each. The calculation made was:

Total cost of units available (TC)
Total units available $(T U)=$ Weighted average cost per unit $\frac{(2 \times \$ 18)+(6 \times \$ 20)}{2+6 \text { units available }}=$ Weighted average cost per unit

$$
\frac{T C}{T U}=\frac{\$ 156.00}{8 \text { units }}=\underline{\underline{\$ 19.50}} \text { per unit }
$$

Similar calculations are required when inventory is added on June 15 and June 28. Review Exhibit 2.4(d) and confirm the weighted average calculations.

| Item Description: Chateau Dupont |  |  | Balance Available |
| :---: | :---: | :---: | :---: |
| June | Purchase Received | Issued Sales | Units $\times$ Cost $=$ Tot. Cost |
| 01 | Bal. Fwd. |  | 2 @ \$18.00 = \$ 36.00 |
| 02 | 6 @ \$20.00 = \$120.00 | [ $\$ 156 / 8=\$ 19.50]$ | 8 @ \$19.50 = \$156.00 |
| 08 |  | 3 @ \$19.50 = \$58.50 | 5 @ \$19.50 = \$ 97.50 |
| 12 |  | 3 @ \$19.50 = \$58.50 | 2 @ \$19.50 = \$ 39.00 |
| 15 | 10 @ \$22.00 = \$220.00 | [\$259 / $12=\$ 21.58]$ | $\underline{12 @ \$ 21.58=\$ 258.96}$ |
| 20 |  | 3 @ $21.58=\$ 64.74$ | 9 @ \$21.58 = \$194.22 |
| $\begin{aligned} & 24 \\ & 28 \end{aligned}$ | $6 @ \$ 19.00=\$ 114.00$ | $\begin{aligned} 3 @ \$ 21.58 & =\$ 64.74 \\ {[\$ 243.48 / 12} & =\$ 20.29] \end{aligned}$ | $\begin{array}{r} 6 @ \$ 21.58=\$ 129.48 \\ 12 @ \$ 20.29=\$ 243.48 \\ \hline \end{array}$ |
| 30 |  | 2 @ $\$ 20.29=\$ 40.58$ | $\underline{10 @ \$ 20.29=\$ 202.90}$ |
| Ending | Purchases \$454.00 | Cost of sales $=\$ 287.06$ | Ending Inv. $=\mathbf{\$ 2 0 2 . 9 0}$ |
|  | *Adjusted cost of sales: \$287.06 + \$0.04 = \$287.10 |  |  |

*The weighted average method will normally create rounding errors-in this case, a $4 \varnothing$ or $\$ 0.04$ error. The correct cost of sales: BI $\$ 36+$ Purchases $\$ 454$ - EI $\$ 202.90=\$ 287.10$. Cost of sales on the control record is $\$ 287.06$ and is adjusted to be $\$ 287.10$ when recorded and reported.

EXHIBIT 2.4(d)
Weighted Average Perpetual Inventory Control Record

The weighted average inventory evaluation method can generally reduce effects of price-cost increases or decreases during a month or for longer operating periods. As shown in Exhibit $2.4(d)$, the value of ending inventory is $\$ 202.90$.

Having discussed the four different inventory evaluation methods, we will now compare the results for ending inventory and cost of sales:

| Method | Ending Inventory | Cost of Sales |
| :--- | :---: | :---: |
| Specific identification | $\$ 204.00$ | $\$ 286.00$ |
| First-in, first-out | $\$ 202.00$ | $\$ 288.00$ |
| Last-in, first-out | $\$ 200.00$ | $\$ 290.00$ |
| Weighted average cost | $\$ 202.90$ | $\$ 287.10$ |

Although the differences among the four inventory valuation methods do not appear to be significant, only one item of inventory in stock was evaluated. If a full inventory were evaluated, the differences may well become significant, and might have an effect on the value of the entire inventory, cost of sales,
operating income, and taxes. However, if one inventory method is consistently followed, the effect on inventory valuation, cost of sales, and operating income will be consistent.

Finally, note that the FIFO method generally produces a higher net income when cost prices are increasing and a lower net income when cost prices are declining. It is generally the easiest method to use, particularly when the inventory records are manually maintained. For this reason, it is often the preferred method used for food inventories. FIFO is also consistent with the stock rotation required to maintain fresh-food inventories.

When each item has been counted and costs are established, total inventory value can be calculated. The costing of items sounds like a simple process, and is for most items. However, the process can be more difficult for other items. For example, what is the value of a gallon of soup that is being prepared in a kitchen at the time inventory is taken? In such a case, that value (because the soup has many different ingredients in it) might have to be estimated. The accuracy of the final inventory depends on the time taken to value it. There is a trade-off between accuracy and time required. If inventory is not as accurate as it could be, then neither food (and beverage) cost nor net income will be accurate. Normally, however, relatively minor inventory-taking inaccuracies tend to even out over time. Inventory figures for food should be calculated separately from those for alcoholic beverages.

Compared to costing inventory, the cost of purchases can be calculated relatively easily because it is the total amount of food and beverages delivered during the month less any products returned to suppliers for such reasons as unacceptable quality. Invoices recorded in the purchases account during the month can readily provide this figure. To calculate food cost separately from beverage cost, purchase cost for these two areas must also be recorded in separate purchase accounts.

## Adjustments to Cost of Sales-Food

To date, we have only discussed the calculation of the cost of sales-food. Why is this figure called "cost of sales—food" rather than "net food cost," "cost of food sold," or "food cost"? In many small restaurants, cost of sales-food is the same as net food cost, but in most food and beverage operations it is necessary to adjust cost of sales-food before it can be accurately labeled net food cost. Here are some possible adjustments:

- Interdepartmental and interdivisional transfers: For example, in a restaurant with a separate bar operation, items might be purchased and received in the kitchen and recorded as food purchases that are later transferred to the bar for use there. Some examples include fresh cream, eggs, or fruit used in certain cocktails. In the same way, some purchases might be received by the bar (and recorded as beverage purchases) that
are later transferred to the kitchen-for example, wine used in cooking. A record of transfers should be maintained so at the end of each month, both food cost and beverage cost can be adjusted to ensure they are as accurate as possible. The cost of transfers from the food operation to the bar operation would require the cost of sales-food to be adjusted by deducting the cost of the inventory transferred. The opposite effect would be the bar adding the cost of the transfer to adjust the cost of sales-beverage.
- Employee meals: Most food operations allow certain employees, while on duty, to have meals at little or no cost. In such cases, the cost of that food has no relation to sales revenue generated in the normal course of business. Therefore, the cost of employee meals should be deducted from cost of food used. Employee meal cost is then transferred to another expense account. For example, it could be added to payroll cost as an employee benefit. Note that if employees pay cash for meals but receive a discount from normal menu prices, this revenue should be excluded from regular food revenue because it will distort the food cost percentage calculation. It should be transferred to a separate revenue account, such as other income.
- Promotional expense: Restaurants sometimes provide customers with complimentary (free) food and/or beverages. This is a beneficial practice if it is done for good customers who are likely to continue to provide the operation with business. The cost of promotional meals should be handled in the same way as the cost of employee meals. The cost should not be included in cost of sales-food or cost of sales-beverage because, again, the food and/or beverage cost will be distorted. The cost should be removed from food cost and/or beverage cost and be recorded as advertising or promotion expense. Employees who are authorized to offer promotional items to customers should be instructed always to make out a sales check to record the item's sales value. Some restaurants, for promotional purposes, issue coupons that allow two meals for the price of one. In this case, the value of both meals should still be recorded on the sales check, even though the customer pays for only one meal. From sales checks, the cost of promotional meals can be calculated by using the operation's normal food cost and/or beverage cost percentage.


## RESPONSIBILITY ACCOUNTING

A hospitality business with several departments, each with the responsibility for controlling its own costs and with its department head accountable for the departmental profit achieved, is practicing what is known as responsibility accounting. Responsibility accounting is based on the principle that
department heads or managers should be held accountable for their performance and the performance of the employees in their department.

There are two objectives for establishing responsibility centers:

1. Allow top-level management to delegate responsibility and authority to department heads so they can achieve departmental operating goals compatible with the overall establishment's goals.
2. Provide top-level management with information (generally of an accounting nature) to measure the performance of each department in achieving its operating goals.

Within a single organization practicing responsibility accounting, departments can be identified as cost centers, revenue centers, profit centers, or investment centers. A cost center is one that generates no direct revenue (such as the maintenance department). In such a situation, the department manager is held responsible only for the costs incurred.

Some establishments also have revenue centers. These departments receive sales revenue, but have little or no direct costs associated with their operation. For example, a major resort hotel might lease out a large part of its floor space to retail stores. The rent income provides revenue for the department, all of which is profit.

A profit center is one that has costs but also generates revenue that is directly related to that department. The rooms department is an example where the manager is responsible for generating revenue from guest room sales. The manager of a profit center should have some control over the sales revenue it can generate. Thus, profit centers are responsible for both maximizing revenue and minimizing expenses, which, in turn, maximizes departmental profit. Each profit center manager or department head can then be measured on how well profit was maximized while continuing to maintain customer service levels established by top-level management.

In both cost and profit centers, a key question is, what costs should be assigned to each center? Generally, only those costs that are directly controllable by that center's department head or manager are assigned.

The final type of responsibility center occurs in a large or chain organization with units located in several different towns or cities. Each unit in the organization is given full authority over how it operates and is held responsible for the results of its decisions. In a large organization such as this, each unit is said to be decentralized and units are sometimes referred to as investment centers. Investment centers are measured by the rate of return their general managers achieve on the investment in that center.

## TRANSFER PRICING

In some chain organizations, products are transferred from one unit to another. For example, in a multiunit food organization, raw food ingredients might be purchased and processed in a central commissary before distribution to the
individual units. A question arises about the cost to be transferred to each unit for the partially or fully processed products. Many different pricing methods are available. It is important that an appropriate pricing method be decided so each unit can be properly measured on its performance.

For example, the transfer price could be the commissary's cost plus a fixed percentage markup to cover its operating costs. Another method might be to base the transfer price on the market price of the products. The market price would be what the receiving unit would have paid if it had purchased the products from an external supplier. In some cases, the market price might be reduced by a fixed percentage to reflect the commissary's lower marketing and distribution costs. Obviously, each user unit would prefer to have the transfer price as low as possible so its costs are lower, and the commissary would prefer to have the transfer price as high as possible to enhance its performance.

## DISTRIBUTION OF INDIRECT EXPENSES

One controversial issue concerning the income statement is whether the indirect expenses should be distributed to the departments. The problem arises in selecting a rational basis on which to allocate these costs to the operating departments. Some direct expenses might also have to be prorated between two operating departments on some logical basis. For example, an employee in the food department serving food to customers might also be serving them alcoholic beverages. The food department will receive the credit for the food revenue, the beverage department for the beverage revenue. However, it would be unfair for either of these two departments to have to bear the full cost of that employee's wages. That cost should be split between the two departments, possibly prorating it on the basis of the revenue dollars. Such interdepartmental cost transfers are easily made; they are necessary to have a reasonably correct profit or loss for each operating department for which the appropriate department head is accountable.

One of the arguments in favor of allocating indirect expenses to departments is that, although departmental managers are not responsible for controlling those costs, they should be aware of what portion of them is related to their department since this could have an impact on departmental decision making, such as establishing selling prices at a level that covers all costs and not just direct costs.

When this type of full-cost accounting is implemented in a responsibility accounting system, it allows a manager to know the total minimum revenue that must be generated to cover all costs, even though the control of some of those costs is not their responsibility.

Some undistributed indirect expenses can be allocated easily and logically. For example, marketing could be distributed on a revenue ratio basis. However, if a particular advertising campaign had been made specifically for one department, and it was thought that little, if any, benefit would accrue to other departments, then the full cost of that campaign could reasonably be charged to that one department as a direct cost.

In Exhibit 2.3, note that the total marketing expense is $\$ 66,900$. If management wished to charge (allocate) that expense to the operating departments on a revenue ratio basis, the first step is to convert each department's revenue to a percentage of total revenue, as follows (percentage figures are rounded to the whole percentage):

| Department | Revenue | Percentage |
| :--- | ---: | :---: |
| Rooms | $\$ 1,150,200$ | $48.6 \%$ |
| Food | 851,600 | $36.0 \%$ |
| Beverage | 327,400 | $13.8 \%$ |
| Miscellaneous | 38,200 | $\underline{1.6 \%}$ |
| Total | $\underline{\$ 2,367,400}$ | $\underline{100 \%}$ |

The marketing cost can then be allocated as follows:

| Department | Total Marketing Expense <br> Share of Cost | Share of Allocated <br> Marketing Expense |
| :--- | :---: | :---: |
| Rooms | $\$ 66,900 \times 48.6 \%=$ | $\$ 32,513.40$ |
| Food | $66,900 \times 36.0 \%=$ | $24,084.00$ |
| Beverage | $66,900 \times 13.8 \%=$ | $9,232.20$ |
| Miscellaneous | $66,900 \times 1.6 \%=$ | $\underline{1,070.40}$ |
| Total |  | $\underline{\$ 66,900.00}$ |

The other indirect costs could be distributed by using the same procedure, but on a different basis. For example, total department payroll and related expenses might be an appropriate basis on which to allocate the administrative and general expense. The square foot (or cubic foot) area could be used for allocating property operation and maintenance, and energy costs. Alternatively, property operation and maintenance expenses could be allocated directly to the department(s) concerned at the time of invoicing. Property (real estate) taxes may also be allocated to a specific department on a square footage or revenue basis. Insurance could be charged on the basis of each department's insurable value relative to the total insurable value. Depreciation on a building might be apportioned on the basis of each department's property value relative to total property value, or, if this is difficult to determine, square footage might be appropriate. Depreciation on equipment and furniture could probably easily be prorated on the basis of each department's equipment and furniture cost, or value, relative to total cost or value. Finally, with respect to interest expense, the only logical basis would be on each department's share of the asset value to total asset value at the time the obligation (mortgage, bond, debenture, loan) was
incurred. If a department does not have any assets covered by the obligation, then it should bear none of the interest expense.

Once a method of allocating any, or all, of these indirect costs to the operating departments is selected, it should be adhered to consistently so that comparison of income statements of future periods is meaningful. However, remember that comparison with other, similar organizations' income statements may not be meaningful if that organization had not selected the same allocation basis. The resulting departmental income or loss may or may not be more revealing to the individual manager than the more traditional approach, which takes the departmental income statement to the departmental operating income (contributory income) level only.

If indirect expenses are allocated, the department head should still be made responsible only for the income (or loss) before deduction of indirect expenses, since indirect expenses are not normally controllable by the department head. By allocating indirect expenses, top management will be able to determine if each department is making income after all expenses. If any are not, it may be that the allocation of indirect costs is not fair. Alternatively, analysis of such costs might indicate ways in which the costs could be reduced to eliminate any individual departmental losses and increase overall total net income.

Finally, whether or not indirect expenses are allocated to the various operating departments, the resulting net income (bottom line) figure for the entire operation will not differ. As well, the net income for the entire operation will not differ even if the method of allocating indirect expenses to the various departments is changed.

## REVENUE MIX EFFECT ON NET INCOME

Even though the allocation of the indirect expenses to the departments does not affect the operation's total net income because total indirect expenses are the same, there is one factor that will affect net income even if there is no change in total indirect expenses or in total revenue. That factor is a change in the revenue mix. In this particular instance, a change in the revenue mix is understood to be a change in the revenue volume of the various operating departments.

In Exhibit 2.5, contributory income percentage figures have been rounded to the nearest whole percentage. The rooms department has the lowest total of direct costs in relation to its revenue, and its departmental income is the highest, at 68 percent of revenue. Expressed differently, this means that, for every dollar increase in room revenue, $\$ 0.68$ will be available as a contribution to the total indirect costs.

This is important if there is a change in the revenue mix. In Exhibit 2.6, there has been a change. Room revenue has been increased by $\$ 100,000$, and food and beverage have each decreased by $\$ 50,000$. There is, therefore, no change in total revenue. It is assumed that the contributory income percentage

|  | Net <br> Revenue | Direct <br> Expense | Departmental <br> Contributory <br> Income | Contributory <br> Income <br> Percentage |
| :--- | :---: | :---: | :---: | :---: |
| Rooms | $\$ 1,150,200$ | $\$ 367,300$ | $\$ 782,900$ | $68 \%$ |
| Food | 851,600 | 698,600 | 153,000 | 18 |
| Beverage | 327,400 | 208,300 | 119,100 | 36 |
| Miscellaneous income | $\underline{38,200}$ | $\underline{19,600}$ | $\frac{18,600}{}$ | 49 |
| Totals | $\underline{\$ 2,367,400}$ | $\underline{\$ 1,293,800}$ | $\$ 1,073,600$ |  |
| Total Indirect Expenses |  |  | $\underline{(842,400)}$ |  |
| Operating Income (before tax) |  |  | $\underline{\$ 231,200}$ |  |

EXHIBIT 2.5
Contributory Income Schedule
for each department will stay constant, despite a change in sales revenue volume; this may or may not be the case. Given this assumption, Exhibit 2.6 shows that, even with no change in total revenue or total indirect expenses, there has been an increase in total contributory income and net income of $\$ 39,900$. If management is aware of the influence each department has on total contributory income and on net income, it could be important for decision making. For example, it could indicate how the marketing budget should best be spent to emphasize the various departments within the organization. Alternatively, if a limited budget were available for building expansion to handle increased business, a study of each department's relative contributory income would help in deciding how to allocate the available funds.

|  | Revised Net <br> Revenue | Direct <br> Expense | Departmental <br> Contributory <br> Income | Contributory <br> Income <br> Percentage |
| :--- | :---: | :---: | :---: | :---: |
| Rooms | $\$ 1,250,200$ | $\$ 400,100$ | $\$ 850,100$ | $68 \%$ |
| Food | 801,600 | 657,300 | 144,300 | 18 |
| Beverage | 277,400 | 177,500 | 99,900 | 36 |
| Miscellaneous income | $\underline{38,200}$ | $\underline{19,600}$ |  | 18,600 |
| Totals | $\underline{\$ 2,367,400}$ | $\underline{\$ 1,254,500}$ | $\$ 1,112,900$ | 49 |
| Total Indirect Expenses |  |  | $\left(\frac{842,400)}{270,500}\right.$ |  |
| Operating Income (before tax) |  | $\underline{ }$ |  |  |

## EXHIBIT 2.6

Contributory Income Schedule for Revised Revenue

## BALANCE SHEETS

The balance sheet provides a picture of the financial condition of a business at a specific point in time. The balance sheet can be presented in a horizontal account format or in a vertical report format. Regardless of the format used, total assets must always equal total liabilities and ownership equity.

The left-hand side of the balance sheet consists of all assets, which must equal the right-hand side of the balance sheet. The right-hand side is composed of two major sections: liabilities and ownership equity. The liabilities are further broken down into short-term and long-term. Owners' equity normally consists of capital(s) and withdrawals accounts. Stockholders' equity generally consists of capital stock and retained earnings accounts. A balance sheet in report format is shown in Exhibit 2.7.

## CURRENT ASSETS

Current assets represent cash and other assets that will be converted to cash or consumed during an operating period of one year or less whichever is longer.

## Cash on Hand

Most business operations should deposit in the bank the total cash receipts from the preceding day. The amount of cash on hand reported in the balance sheet will normally be equivalent to approximately one day's cash receipts, plus any point-of-sale cash drawer or service-staff-operating cash banks.

## Cash in the Bank

Cash in the bank should normally be sufficient to pay current debt liabilities as they come due for payment in each operating period. Cash in excess of amounts needed for payment of current debt should be invested in short-term interest-bearing instruments.

## Marketable Securities

Cash that is in excess of operating requirements can be invested in a number of different interest-bearing instruments. One way is to invest excess funds in short-term marketable securities until the cash is needed. Normally, this type of current asset is shown at cost. When the market value of such securities is different from their cost on the balance sheet date, the securities' market value should be reported in the balance sheet by a disclosure footnote. If the securities
Balance Sheet
December 31, 0006

\left.|  | Assets |  |  | Liabilities and Stockholders' Equity |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |$\right]$

[^0]qualify as trading securities, an unrealized gain or loss can be recognized for accounting purposes by comparing their cost to the present market value.

## Credit Card Receivables

These represent credit card receivables that have not yet been reimbursed by the credit card company at the end of an operating period. This amount will normally be equal to the amount of sales purchased on credit cards during the last one to four days before the balance sheet date. The rate at which an operation is reimbursed for credit cards will vary based on the type of card and the issuing credit card company.

## Accounts Receivable

Generally, the use of accounts receivable is being replaced by credit cards. When accounts receivable are used as a current asset, they represent the extension of credit for rooms, food and beverages to individuals, or companies for which payment was not immediately received. If an account receivable is not paid, and it appears it will not be paid, the account is normally written off as a bad debt expense.

## Inventories

Two different categories of inventories exist. The first category is current assets. To be considered as a current asset, inventories must have been purchased for resale (e.g., food, beverage, and supplies inventories). The second category includes glassware, tableware, china, linen, and uniforms, which are noncurrent assets commonly referred to as other assets and normally reported following property, plant, and equipment, in the fixed assets section of the balance sheet.

## Prepaid Expenses

Prepaid items represent the use of cash to obtain benefits that will be consumed with the passage of time. Prepaid insurance premiums, prepaid rent or lease costs, prepaid advertising, prepaid license fees, prepaid taxes, and other such items are classified as current assets. Although prepaid items are not expected to be converted to cash, they replace cash as a current asset until the benefits are received and recognized as expenses.

## FIXED ASSETS (LONG-LIVED ASSETS)

Fixed assets are noncurrent, nonmonetary tangible assets used to support business operations. They are also known as property, plant, and equipment and commonly referred to as capital assets. Fixed assets are long lived and of a more permanent and physical nature, and are not intended to be sold.

## Land, Building, and Furniture and Equipment

These are three major and common fixed assets used in the hospitality industry. They are generally shown at their cost, or cost plus any expenditure necessary to put the asset in condition for use (e.g., freight and installation charges for an item of equipment). If any part of the land or a building is not used for the ordinary purposes of the business (e.g., a parcel of land held for investment purposes), it should be shown separately on the balance sheet. On some balance sheets, this section is titled Property, Plant, and Equipment.

## Accumulated Depreciation

The costs of buildings and furniture and equipment are reduced by accumulated depreciation. However, land is not depreciated and is always recorded at its original cost. Accumulated depreciation reflects the decline in value of the related asset due to wear and tear, the passage of time, changed economic conditions, or other factors. This traditional method of accounting, which shows the net book value (cost minus accumulated depreciation) of the asset, does not necessarily reflect the market value or the replacement value of the asset in question.

## OTHER ASSETS

A company might have other assets that do not fit into either current assets or fixed assets. Some of the more common ones are discussed here.

## China, Glass, Silver, Linen, and Uniforms

This amount is made up from two figures. The estimated value of items in use is added to the cost of those items still new and in storage.

## Deposits

If the deposit is refundable at some future time, it can be considered an asset. An example of this would be a deposit with a utility company.

## Investments

Long-term investments in other companies or in property or plant not connected with the day-to-day running of the business are shown as a separate category of asset. This category does not include short-term investments, such as a separate building that is owned and rented to another organization.

## Leasehold Costs or Leasehold Improvements

It is reasonably common for land or the building to be leased. Where a longterm lease is paid in advance, the unexpired portion of this cost should be shown as an asset. Similarly, if improvements are made to a leased building, these
leasehold improvements are of benefit during the life of the business or the remaining life of the lease, whichever is shorter. The costs should be spread (amortized) over this life. Any un-amortized cost should be shown as an asset. The term amortization is similar in concept to depreciation, discussed in Chapter 1 . Depreciation is generally used in conjunction with tangible assets, such as buildings and furniture and equipment. Amortization is generally used with intangible assets, such as goodwill or deferred expenses.

## Deferred Expenses

Deferred expenses are similar to prepaid expenses except that the deferred expense is long-term in nature and is amortized over future years. An example of this might be the discount (prepaid interest) on a mortgage. This discount is amortized annually over the life of the mortgage. Preopening expenses such as advertising that will benefit the operation in future periods would also fit into this category.

## TOTAL ASSETS

All of the various assets discussed, when added together, represent the total assets of a company, or the total resources available to it.

## CURRENT LIABILITIES

Current liabilities are those debts that must be paid or are expected to be paid within a year. They include the following items.

## Accounts Payable-Trade

These include the amounts owing to suppliers of food, beverages, and other supplies and services purchased on account or contracted for in the normal day-to-day operation of a hospitality business.

## Accrued Expenses

Accrued expenses include those current debts that are not part of accounts payable. This would include unpaid wages or salaries, payroll tax and related deductions, interest owing but not yet paid, rent payable, and other similar expenses.

## Income Tax Payable

This is the income tax owed to the government on the company's taxable income.

## Deposits and Credit Balances

Advance cash deposits by prospective guests for room reservations or banquet bookings and the accounts of guests staying in a hotel may have credit balances on them. The total of all these items should be shown as a liability because the money is due to the guest until it has been earned.

## Current Portion of Long-Term Mortgage

Since, by definition, current liabilities are debts due within one year, the amount of a long-term liability payable within a year should be deducted from the long-term obligation and shown under current liabilities.

## LONG-TERM LIABILITIES

Long-term liabilities are those due more than one year after the balance sheet date. Included in this category would be mortgages, bonds, debentures, and notes payable. If there are any long-term loans from stockholders, they also would appear in that section.

## OWNERSHIP EQUITY

In general terms, the ownership equity section of the balance sheet is the difference between total assets and total liabilities. It represents the equity, or the interest, of the owners in the enterprise. It comprises two main items, capital stock and retained earnings, although other items, such as capital surplus, may appear.

## STOCKHOLDERS' EQUITY ACCOUNTS

## Capital Stock

Any company that is incorporated, is limited by law to a maximum number of shares it can issue. This limit is known as the authorized number of shares. Shares generally have a par, or stated, value, and this par value, multiplied by the number of shares actually issued up to the authorized quantity, gives the total value of capital stock. Most companies issue shares in the form of common stock. However, often balance sheets will have another type of stock, known as preferred stock. Preferred stock ranks ahead of common stock, up to certain limits, to receive dividends. Preferred stockholders may have special voting rights, and they rank ahead of common stockholders to receive reimbursement in the event of the company's liquidation.

## Paid-in Capital, Excess of Par

The term was formally referred to as capital surplus and represents the amount received by incorporated companies when their stock sold for more than its par value. This term also applies to companies who sold stock at a price exceeding its stated value. The excess amounts received from selling stock for more than its par or stated value appears in the stockholders' equity section of the balance sheet.

## Retained Earnings

Retained earnings is the account that records and accumulates all net income and net losses of an incorporated business. In addition, retained earnings is reduced by the value of all cash or stock dividends declared to be paid or issued by the company. A historical record of the success or failure (profit or loss) of a company and the dividends given to stockholders is shown in this account. Retained earnings can only be used to offset dividends, extraordinary losses, and prior period adjustments. Alternately, retained earnings can be retained for capital expansion to provide for the growth of the company. Retained earnings does not represent cash, although it is a critical link to the income statement and balance sheet. Details regarding changes to retained earnings over an accounting period are shown in a statement of retained earnings in Exhibit 2.8.

The detail shown in the statement of retained earnings shown in Exhibit 2.8 can and has been incorporated into the retained earnings section of stockholders' equity rather than simply showing its ending balance at the end of a period of operations. Exhibit 2.9 illustrates the link between the income statement and balance sheet over two successive accounting periods.

## Dividends Payable

If dividends had been declared but not yet paid at the balance sheet date, they would be recorded under current liabilities.

| Statement of Retained Earnings <br> for the Year Ending December 31, 0006 |  |
| :--- | :--- |
| Retained Earnings January 1, 0006 | $\$ 192,500$ |
| Add: Net income for Year 0006 | $\underline{270,500}$ |
| Less: Dividends paid | $\underline{\$ 463,000}$ |
| Retained Earnings December 31, 0006 | $\underline{(433,000)}$ |

EXHIBIT 2.8
Sample Retained Earnings Statement


## EXHIBIT 2.9

Link Between Balance Sheets, Income Statement, and Statement of Retained Earnings

## PROPRIETORSHIP AND PARTNERSHIPS

Capital stock is issued only in incorporated business entities. The sole owner of a business is the proprietor and a partnership will consist of two or more owners. For sole proprietorships and partnerships, the ownership equity section is called statement of capital and is shown as follows:

$$
\underset{\text { capital }}{\text { Beginning }}+\underset{(\text { or }- \text { Net loss })}{\text { Net income }}-\underset{\text { withdrawals }}{\text { Owner }}=\begin{gathered}
\text { Ending } \\
\text { capital }
\end{gathered}
$$

The format of a statement of capital will generally follow the format shown in Exhibit 2.10.

The difference between a statement of capital and a statement of partnership capital is the use of a separate capital and withdrawal accounts for each partner. Distribution of partnership net income or net loss is based on the partnership agreement. Detail in the statement of partnership capital will generally follow the basic format shown in Exhibit 2.11.

## total liabilities and stockholders' eouity

The total of all the liabilities and stockholders' equity, or capital, accounts should agree with the total asset accounts on the left-hand side of the balance sheet. These liability and equity, or capital, accounts show how the company's resources (assets) are currently financed.

## BALANCE SHEET DETAIL

The amount of detail shown on a balance sheet depends on the amount of information desired, the operation's size and complexity, and whether it is a proprietorship, partnership, or incorporated company. For example, one business's balance sheet might show each type of cash account as a separate item, while another business's balance sheet might combine all

## Statement of Proprietor's Capital for the Year Ending December 31, 0006

| Investment January 1, 0006 | $\$ 492,500$ |
| :--- | ---: |
| Add: Net income for Year 0006 | $\underline{116,500}$ |
|  | $\$ 609,000$ |
| Less: Withdrawals during year | $\underline{(\quad 30,000)}$ |
| Balance December 31, 0006 | $\underline{\underline{\$ 579,000}}$ |

EXHIBIT 2.10
Sample Proprietor's Capital Statement
the various cash accounts into a single figure.

Some operators want their balance sheets simplified as much as possible because this makes them easier to "read" at first glance. Where more detail about an account is needed, this might then be shown as an addendum or footnote on an adjoining page. For example, the inventories might be shown in total only on the balance sheet and might be supported by a separate schedule that shows them broken down into separate figures for food, beverages, supplies, and others.

| Statement of Partners' Capital <br> Year Ending December 31, 0006 |  |  |
| :--- | :---: | :---: |
| Partner $\boldsymbol{A}$ | Partner $\boldsymbol{B}$ |  |
| Capital (investment) January 1, 0006 | $\$ 246,250$ | $\$ 246,250$ |
| Add: Net income for Year 0006 | $\frac{58,250}{\$ 304,500}$ | $\frac{58,250}{\$ 304,500}$ |
| Less: Withdrawals during year | $\left(\frac{15,000)}{\$ 289,500}\right.$ | $\underline{(15,000)}$ |
| Capital December 31, 0006 | $\underline{\$ 289,500}$ |  |

EXHIBIT 2.11
Sample Partners' Capital Statement

## BALANCE SHEET PRESENTATION

The balance sheet in Exhibit 2.7 is indicative of the way many balance sheets are presented, with assets on the left and liabilities and capital on the right. This presentation is known as the account format (horizontal), or account method, and is most commonly used by small- to medium-sized businesses.

Another common method is the report form. This method is a vertical format rather than horizontal. In the report form, the balance sheet is considered to have a top half and a bottom half. The top half is for the assets and the bottom half is for liabilities and owners' equity. The report form is normally used by larger-size business entities.

## Importance of Balance Sheet

The balance sheet is important because it can provide information about matters such as the following:

A business's liquidity, or ability to pay its debts when they have to be paid.

- How much of the operation's profits has been retained in the business to help it expand and/or reduce the amount of outside money (debt) that has to be borrowed.
- The breakdown of assets into current, fixed, and other, with details about the amount of assets within each of these broad categories.
- The business's debt (liabilities) relative to owners' equity. In general, the greater the amount of debt relative to equity, the higher is the operation's financial risk.


## Balance Sheet Limitations

There are some aspects of a business that the balance sheet may not disclose. For example:

- True value. Because transactions are recorded in the value of the dollar at the time the transaction occurred, the true value of some assets on the balance sheet may not be apparent. Suppose a hotel owned the land on which the building sits and that land had been purchased several years ago. Because of inflation and demand for limited land, it is likely that the land is worth far more today than was paid for it. This may also be true of some other assets. The balance sheet normally does not show this market value.
- Goodwill. If the operation was purchased from a previous owner who had built up a successful business, and if the new owner paid an amount for that business above the actual market value of the assets, that amount would have been recorded on the balance sheet at the time of purchase as goodwill. Goodwill that a business has is normally recorded only at the time a business is transferred from seller to buyer. Therefore, if a business was started from scratch, and has a good location compared to its competitors, and/or a good reputation and faithful clientele, and/or a superior work force with good morale, it is probably worth far more than the balance sheet assets show, simply because the goodwill built up is not reflected on the balance sheet.
- Employee investment. Another value similar to goodwill that is not shown on a business's balance sheet is the investment in its employees. This investment is the time and money spent on recruiting, training, evaluating, and promoting motivated individuals. Obviously, it is difficult to assign a value to these human resources, but nevertheless, they are assets to any hospitality business.
$\square$ Judgment calls. Many items recorded on balance sheets are a matter of judgment or estimate. For example, what is the best depreciation method and rate to use, and what is the best of several available methods for valuing inventories? There are no absolute answers to these questions. For this reason, a balance sheet may not reflect the correct value for all assets. If the judgments or estimates used are wrong, then the balance sheet is incorrect.
- Changing circumstances. Balance sheets also reflect the financial position of a business at only one moment in time. However, the business is constantly changing, and, therefore, the information on the balance sheet is constantly changing. These changes will not be shown until another balance sheet is produced a month or more later. If a balance sheet shows a healthy cash position at one time, and a week later most of that cash was spent on new furniture, the balance sheet will reveal nothing about the impending use of most of the cash available.


## COMPUTER APPLICATIONS

By using a general ledger software package in which only journal entries have to be entered in the computer, an operation's balance sheet and income statement can be automatically prepared and printed at the end of each accounting period.

Inventory control software can be used to maintain a perpetual inventory, as well as to calculate total inventory value at each period end.

## S U M M A R Y

Financial statements provide information that management needs for rational decision making. Most hotel and food service operations pattern their financial statements along the lines of one of the various types of Uniform System of Accounts available to the industry.

The two main statements in a set of financial statements are the income statement and the balance sheet. The income statement shows the operating results of a business over a period of time, ending on the balance sheet date, whereas the balance sheet gives a picture of the financial position of a business at a particular point in time.

Income statements in the hospitality industry are, wherever possible, departmentalized. In other words, each operating department prepares an income statement. Revenue and direct costs are controllable by and are the responsibility of that department.

For most foodservice operations, it is necessary to adjust cost of food used to arrive at a net food cost figure for an income statement. Such adjustments cover such items as interdepartmental transfers, employee meals, and promotion items.

Many hospitality businesses also use income statements to evaluate responsibility accounting, which is based on the principle that department heads or managers should be held accountable for their performance and the performance of their employees.

Summarized departmental incomes are brought together in a general income statement, and all remaining fixed costs and indirect expenses are deducted to arrive at operating income (before income tax). Although it is possible to allocate and distribute all fixed and undistributed costs to operating departments, the difficulty lies in finding a realistic and practical method of prorating them to the departments.

An important point to remember regarding an income statement reporting on two or more operating departments is the effect a change in revenue may have across the departments. A given change in the revenue in one department may have a completely different effect on operating income than the same amount of revenue change in another department. Since different departments
normally have different contributory income percentages, management needs to be alert to possible changes in revenue mix, which can result in changes in operating income. The net income (or net loss) is transferred to the balance sheet by way of a statement of retained earnings, described as follows:

$$
\underset{\text { retained earnings }}{\text { Beginning }}+\underset{(\mathrm{or}-N L)}{N I}-\text { Dividends }=\underset{\text { retained earnings }}{\text { Ending }}
$$

The statement of retained earnings will show all items that affect ending retained earnings, or ending retained earnings may be shown on the balance sheet as a consolidated or summarized value. The income statement is the source of information regarding net income or net loss.

If the account format is used, the balance sheet has assets on the left side and liabilities and stockholders' equity on the right side. In the report format shown below, assets are reported and followed by liabilities and stockholders' equity.

## ASSETS

Current assets:
Cash
Credit card receivables Accounts receivable (net)
Marketable securities
Inventories
Supplies
Prepaid expenses
Total Current Assets:
Fixed assets (also called Property Plant \& Equipment)

Total Fixed Assets:
Other assets:

Total Assets:
LIABILITIES AND OWNERS' EQUITY:
Current liabilities:

Accounts payable
Accrued expenses
Income taxes payable
Deposits and credit balances
Current portion of mortgage payable

Total Current Liablities:

## Long-term liabilities:

Total Liabilities:

## Stockholders' equity:

Mortgage (or other long-term debt) payable

Capital stock
Paid-in capital, excess of par
Retained earnings

Total Stockholders' Equity: Total Liabilities \& Stockholders' Equity:

Note that the amount of detail appearing in a balance sheet is a managerial decision. Balance sheets may be shown in a horizontal account format $A=L+$ SHE or vertical format, as shown in the preceding example. Finally, it is important to remember that a balance sheet has a great number of uses, but it also has a number of limitations.

## DISCUSSION OUESTIONS

1. Why do managers of a motel or food service operation need financial statements?
2. Of what value is the Uniform System of Accounts?
3. What are the differences between a balance sheet and an income statement?
4. Briefly describe two limitations of a balance sheet.
5. What is departmental contributory income?
6. In a departmental organization, what is the difference between direct expenses and indirect expenses?
7. Explain the terms responsibility accounting and differentiate a profit center from a cost center.
8. What is the difference between FIFO and LIFO inventory control?
9. State the equation for calculating cost of sales and the net cost of sales.
10. Briefly discuss four types of adjustments that may be necessary to convert cost of sales-food, to net cost of sales-food.
11. Discuss some specific types of indirect expenses and an appropriate method or methods to allocate them to individual operating departments.
12. Why should a change in the revenue mix among departments have any effect on net income, even if there is no change in total revenue?
13. For each of the following balance sheet categories, name three accounts and briefly discuss each one:
a. Current assets
b. Current liabilities
c. Fixed assets
14. How do current assets differ from fixed assets?
15. Define retained earnings and explain how ending retained earnings is determined.
16. Why are guest deposits and credit balances on customer accounts shown as current liabilities?
17. Explain how the account format of a balance sheet presentation differs from the report format.
18. Discuss the difference between periodic and perpetual inventory control methods.
19. Define and discuss the weighted average method of inventory control method.
20. Define the term paid-in capital, excess of par.


The assistant night manager of a mid-size motor hotel has a number of duties, one of which is to assist in preparing the income statement each month. A new nearby competitive motor hotel is due to open in about six weeks. The assistant night manager has applied for the assistant day manager's position at the new hotel. Its owner told him that he has the job if he provides the owner with income statements of the motor hotel for which he has worked for the past three years. Discuss the ethics of this situation.

## E X ER C I S E S

E2.1 A hospitality operation may maintain a number of different inventory accounts. What determines if an inventory account is classified as a current asset or an other asset?

E2.2 What is the key word that defines the difference between direct cost and indirect cost?

E2.3 A new restaurant purchased the following wine during the first month of operations:
March 2: Purchased 12750 ml bottles of M \& B wine @ $\$ 12.00$ each.
March 16: Purchased 24750 ml bottles of M \& B wine @ $\$ 13.00$ each
March 31: Sold 30 bottles during March @ $\$ 26$ each.
Determine the value of the ending inventory and cost of sales for M \& B for March using:
a. First-in, first-out method
b. Last-in, first-out method
c. Weighted average method

E2.4 Identify the missing dollar amounts in the equation shown below:

$$
\begin{array}{cccccc}
\text { Beginning inventory } & + \text { Purchases } & - & \text { Ending inventory } & = & \text { Cost of sales } \\
\$ 40,000 & + & ? & - & \$ 20,000 & = \\
\$ 100,000
\end{array}
$$

E2.5 A hospitality operation began with retained earnings of $\$ 126,000$. During the year, cash dividends of $\$ 55,200$ were paid to the owners. Net income for the year was $\$ 228,000$. Answer the following:
a. What is the ending balance of retained earnings?
b. What would be the ending balance of retained earnings if a net loss of $\$ 22,200$ had been reported rather than the net income?

E2.6 A food department reported sales revenue of $\$ 125,800$ and direct costs of $\$ 65,000$ during March. Determine the following:
a. What is the department's contributory income?
b. What is contributory income as a percentage of sales revenue?

E2.7 A department has two operating divisions: Food service with sales revenue of $\$ 950,000$ and a bar-lounge with sales revenue of $\$ 550,950$. Calculate the sales revenue of each division as a percentage of total departmental sales revenue.

E2.8 Match each of the terms in the left column with the account categories given in the right column.
a. Total assets-Total liabilities 1. Fixed asset
b. Revenue-Total expenses
2. Liabilities
c. Depreciable asset
3. Contributory income
d. Debt owed to creditors
4. Net assets, owners' equity
e. Revenue-Direct costs
5. Operating income

E2.9 Indirect, undistributed costs of $\$ 8,000$ are to be allocated to several departments. Two different allocation methods are being considered. Calculate the amount to be allocated for one department based on both the sales revenue and square footage methods. The department contributes 40 percent of overall revenue and occupies 52 percent of the total square footage available.

E2.10 A department with three operating divisions reported the sales revenues for each of its divisions. Determine the percentage of sales revenue provided by each division:

| Rooms division | $\$ 1,269,008$ |
| :--- | ---: |
| Food service division | 878,544 |
| Beverage division | $\underline{292,848}$ |
| Total revenue | $\underline{ }$ |

E2.11 A food division had beginning inventory of $\$ 4,800$, purchases of $\$ 12,200$, and ending inventory of $\$ 3,200$. Determine the cost of goods available and cost of sales-food.

E2.12 A food division reported cost of sales-food of $\$ 48,280$. Employees meals cost $\$ 800$, complimentary meals $\$ 80$, and transfers in were received from the bar operation with a cost of $\$ 120$. Determine the net cost of sales.

## PROBLEMS

P2.1 Prepare a food department income statement in proper format for the Midlands Restaurant from the following information for the first quarter ended on March 31, year 0004 (other income was received from leasing excess equipment for one month and was not a part of normal operations):

## Sales Revenue:

Grill room $\quad \$ 153,100$
Coffee garden $\quad 78,900$
Banquets 298,400
Net food costs 211,700
Salaries and wages expense 174,400
Employee meals expense $\quad 17,200$
Supplies expense $\quad 10,300$
Glass and tableware expense $\quad 4,300$
Laundry and linen expense $\quad 13,000$
License expense $\quad 1,900$
Printing expense $\quad 4,900$
Miscellaneous expense $\quad 6,200$
Other income 600
P2.2 The Purple Rose Restaurant has the following food cost information for a given month. Calculate the food cost of sales and net food cost of sales for March. The following information is provided:
Food inventory, March $1 \quad \$ 2,428$
Food inventory, March $31 \quad 1,611$
Food purchases, March 8,907
Employee meals cost 209
Promotional meals cost 278

P2.3 Dee's Steak House has separate food and bar operations. Calculate food cost of sales and net food cost of sales for August. The following information is provided:

Food inventory, August 1 \$14,753
Food inventory, August 31 12,811
Food purchases, August 48,798
Employee meals cost $\quad 1,208$
Transfers, kitchen to the bar 107
Transfers, bar to the kitchen 48
Promotional meals cost 278
Complimentary meals cost 132

P2.4 The following information is taken from a perpetual inventory record.

Perpetual Inventory Control Record

| Description: M \& B Supreme |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Date | Purchase Received | Issued Sales | Units | Unit Cost |
| June 1 | Balance forward |  | 3 | \$10.00 |
| 4 |  | 2 |  |  |
| 6 | 8 |  | 9 | \$10.50 |
| 9 |  | 3 | 6 |  |
| 12 |  | 2 | 4 |  |
| 15 | 6 |  | 10 | \$11.00 |
| 18 |  | 2 | 8 |  |
| 20 |  | 3 | 5 |  |
| 22 | 6 |  | 11 | \$ 9.50 |
| 25 |  | 2 | 9 |  |
| 28 |  | 3 | 6 |  |

For each of the following inventory valuation methods, calculate the value of ending inventory and the cost of sales as of June 30. Use formats of Exhibits 2.4(a), 2.4(b), and 2.4(c).
a. First-in, first-out method
b. Last-in, first-out method
c. Weighted average method

P2.5 Cindy's Restaurant has three revenue divisions with direct costs and average monthly figures given in the following information:

| Sales revenue | $\$ 202,000$ | $\$ 108,000$ | $\$ 90,000$ |
| :--- | ---: | ---: | ---: |
| Cost of sales | 81,000 | 41,000 | 28,000 |
| Wages and salaries cost | 64,455 | 34,795 | 12,000 |
| Other direct costs | 18,640 | 8,960 | 1,600 |

The restaurant also has the following indirect, undistributed costs:

| Administrative and general expenses | $\$ 13,000$ |
| :--- | ---: |
| Marketing expenses | 9,000 |
| Utilities expense | 6,000 |
| Property operation and maintenance | 12,000 |
| Depreciation expense | 14,000 |
| Insurance expense | 2,000 |

a. Prepare a consolidated contributory income statement showing each of the three divisions side by side for comparison. Do not allocate indirect costs.
b. Allocate the indirect costs to the divisions and prepare a departmental income statement for each division. Administrative, general, and marketing costs are allocated based on sales revenue. The remaining indirect costs are allocated based on square footage used by each division:
Dining 2,400 sq. ft.
Banquet 3,000 , sq. ft.
Beverage 600 sq. ft .
c. After allocating the indirect costs, would you consider closing any of the divisions? Why or why not?

P2.6 With reference to the information provided for Cindy's Restaurant in Problem 2.5:
a. Calculate the contributory income percentage for each of the three divisions.
b. If there were a shift of $\$ 16,000$ in sales revenue from the banquet area to the dining room, would you expect the restaurant's overall operating income to increase or decrease? Explain your reasoning to support your answer.
c. Assuming that the shift of sales revenue does occur, there is no change in total sales revenue and undistributed (indirect) costs. Other direct costs will remain fixed. Wages and salaries costs must be recalculated. Calculate the new operating income for each department and the restaurant's new total operating income. In calculating such items as cost of sales percentage, gross margin percentage, and wages and salaries, round your percentages to the first decimal place.
d. After allocating the indirect costs, would you now consider closing any of the divisions? Why or why not?

P2.7 Using the adjusted trial balance shown below, prepare a balance sheet in vertical report format. Identify each account using specific categories and classifications such as current assets, current liabilities, and so on. After completing the balance sheet, check off each item in the trial balance to ensure each item is shown in the balance sheet.

| Accounts | Debit | Credit |
| :---: | :---: | :---: |
| Cash | \$ 4,100 |  |
| Credits cards receivable | 7,560 |  |
| Accounts receivable | 1,940 |  |
| Inventories | 8,200 |  |
| Prepaid expenses | 1,900 |  |
| Land | 80,000 |  |
| Building | 712,800 |  |
| Accumulated depreciation: (Building) |  | \$ 186,400 |
| Equipment | 119,080 |  |
| Accumulated depreciation: (Equipment) |  | 35,625 |
| Furnishings | 64,120 |  |
| Accumulated depreciation: (Furnishings) |  | 11,875 |
| China and tableware | 9,680 |  |
| Glassware | 2,420 |  |
| Accounts payable |  | 8,600 |
| Accrued expenses payable |  | 2,700 |
| Income taxes payable |  | 6,100 |
| Current portion, mortgage payable |  | 13,100 |
| Mortgage payable |  | 406,900 |
| Capital stock |  | 151,000 |
| Retained earnings. |  | 189,500 |
| Trial Balance Totals | \$1,011,800 | \$1,011,800 |

P2.8 George Jarvis purchased a trailer park on January 1, 0004. It is now March 31. George has no accounting training but has kept a record of his cash receipts and cash payments for the three months (see next page):

As Mr. Jarvis's accountant, you discover the following additional information:
a. The building has an estimated life of 20 years and straight-line depreciation is used.
b. The office equipment has a five-year life with a trade-in value of $\$ 500$.
c. The insurance was prepaid on January 1 for the entire year.

|  | Cash <br> Receipts | Cash <br> Payments |
| :--- | ---: | ---: |
| Jarvis investment for trailer | $\$ 100,000$ |  |
| $\quad$ park shares |  | $\$ 168,600$ |
| Land |  | 216,000 |
| Building | 8,000 |  |
| Office equipment | 350,000 | 4,800 |
| Mortgage payable |  | 4,500 |
| Insurance | 400 |  |
| Wages | 300 |  |
| Maintenance |  | 900 |
| Office supplies |  | 6,000 |
| Utilities |  | 10,500 |
| Property taxes | 60,000 | 4,667 |
| Jarvis, salary |  | 2,000 |
| Rental sales revenue |  |  |
| Mortgage interest expense |  |  |
| Mortgage principal payments, Jan. |  |  |
| $\quad$ and Feb. |  |  |

d. The wages are for the maintenance worker who worked but has not yet been paid for five days during the period ending March 31. The wage is $\$ 9.00$ per hour and the work day is eight hours.
e. An invoice for grounds maintenance expense of $\$ 80$ has not yet been paid.
f. There are $\$ 100$ in office supplies remaining in inventory.
g. The March utility bill has not yet been received. It is estimated to be $\$ 400$.
h. The property taxes were paid in January for the entire year.
i. A rental tenant whose rent is $\$ 200$ has not yet paid for March.
j. Included in the $\$ 60,000$ received for rental income to date is the amount for a tenant who has prepaid for the entire year. The rent is $\$ 175$ per month.
k. No interest or principal has been paid on the mortgage for March. Interest for March is $\$ 2,333$. Principal payments for the balance of the year (including March) are $\$ 12,000$.

1. The income tax is 25 percent of operating income and is payable in April.

Using accrual based accounting, prepare an income statement for the three months ending March 31 and a balance sheet as of March 31.

## C A S E 2

Charlie Driver was pleased with the results of 3C Company's operation in year 2003, especially since he only operated on a part-time basis. In fact, he found the catering business to be not only profitable but also an enjoyable challenge. He decided to continue the 3C Company in year 2004, finish his hospitality and marketing education, and search for a suitable restaurant to acquire and operate.

Near the end of year 2004, Charlie found an 84-seat restaurant that had been closed for several months. It was the type of facility he had been looking for. After locating the owner, he reached an agreement to lease the restaurant for five years. The lease set the first year's rental cost at $\$ 24,000$ and stipulated a 10 percent yearly rental increase in each of the remaining four years of the fiveyear lease. In addition, the owner agreed to allow Charlie to trade in the old equipment and furnishings for whatever he can get for them and to purchase new equipment and furnishings. The equipment and furnishings were traded on new equipment with a net cost of $\$ 171,524$ and new furnishings with a net cost of $\$ 53,596$. The new equipment was estimated to have a 12 -year life with a residual value of $\$ 6,500$. The new furnishings had an estimated 8 -year life and a residual value of $\$ 2,620$.

Charlie realized that for tax purposes and other considerations, he should incorporate a new company as "Charlie's Classic Cuisine" Corporation. We will simplify this name to the 4C Company. With the cash he had saved from operating the 3C Company and from the sale of the truck, Charlie purchased \$50,000 of 4C Company's $\$ 2.00$ par value common stock. Charlie used his reputation and good business record over the past two years to obtain a corporate loan from his bank for $\$ 250,000$. The loan was to be repaid over the next five years in monthly installments of principal and interest.

Although Charlie hired a bookkeeper, he has asked you, a personal friend, to prepare the 4C Company's year-end financial statements and to discuss the results of his first year of operations with him. You agreed to prepare the yearend statements from a year-ending unadjusted trial balance of accounts provided to you.

To make the necessary adjustments, you are given the following information:
$\square$ Inventory figures in the unadjusted trial are for the beginning of year 2004. The December 31, 2003, year-end inventories are $\$ 5,915$ for food and $\$ 2,211$ for beverages.

- Accrued payroll of $\$ 2,215$ must be recognized as of December 31, 2004.
- Depreciation on equipment and furnishings using the straight-line method must be recognized.
■ The bank loan principal to be paid in year 2005 is $\$ 38,260$.
Using the unadjusted trial and additional information, complete the adjustments and prepare an income statement and balance sheet in the report format for

4C Company for the year ended December 31, 2004. Use an income tax rate of 22 percent of operating income (income before tax), which will not be paid until the Year 2005.

The following unadjusted trial balance is provided:

| 4C Company <br> Unadjusted Trial Balance December 31, 0004 |  |  |
| :---: | :---: | :---: |
| Accounts | Debit | Credit |
| Cash | \$ 36,218 |  |
| Credit card receivables | 13,683 |  |
| Accounts receivable | 3,421 |  |
| Inventories, food | 6,128 |  |
| Inventories, beverages | 3,207 |  |
| Prepaid insurance | 2,136 |  |
| Equipment | 171,524 |  |
| Furnishings | 53,596 |  |
| Accounts payable |  | \$ 8,819 |
| Bank loan payable |  | 163,518 |
| Common stock |  | 50,000 |
| Revenue, food operations |  | 458,602 |
| Revenue, beverage operations |  | 180,509 |
| Purchases, food (net) | 181,110 |  |
| Purchases, beverages (net) | 38,307 |  |
| Salaries and wages expense | 221,328 |  |
| Laundry expense | 16,609 |  |
| Kitchen fuel expense | 7,007 |  |
| China and tableware expense | 12,214 |  |
| Glassware expense | 1,605 |  |
| Contract cleaning expense | 5,906 |  |
| Licenses expense | 3,205 |  |
| Misc. operating expenses | 4,101 |  |
| Administrative-general expenses | 15,432 |  |
| Marketing expenses | 6,917 |  |
| Utilities expense | 7,918 |  |
| Insurance expense | 1,895 |  |
| Rental expense | 24,000 |  |
| Interest expense | 23,981 |  |
| Unadjusted trial balance totals | \$861,448 | \$861,448 |


[^0]:    EXHIBIT 2.7
    Sample Balance Sheet

