Job Order Costing

Managerial Accounting
Fifth Edition
Weygandt • Kimmel • Kieso
study objectives

1. Explain the characteristics and purposes of cost accounting.
2. Describe the flow of costs in a job order costing system.
3. Explain the nature and importance of a job cost sheet.
4. Indicate how the predetermined overhead rate is determined and used.
5. Prepare entries for jobs completed and sold.
6. Distinguish between under- and overapplied manufacturing overhead.
preview of chapter 2

Job Order Costing

Cost Accounting Systems
- Job order cost system
- Process cost system

Job Order Cost Flow
- Accumulating manufacturing costs
- Assigning manufacturing costs to work in process
- Assigning costs to finished goods
- Assigning costs to cost of goods sold
- Job order costing for service companies
- Summary of job order cost flows
- Advantages and disadvantages of job order costing

Reporting Job Cost Data
- Cost of goods manufactured schedule
- Income statement presentation
- Under- or overapplied manufacturing overhead
Cost Accounting involves:

**Measuring,**

**Recording,** and

**Reporting of product costs**

- Accounts are fully integrated into the general ledger.
- Perpetual inventory system provides immediate, up-to-date information.
- Two basic types: (1) a **job order cost system** and (2) a **process cost system**.

SO 1  Explain the characteristics and purposes of cost accounting.
Cost Accounting Systems

Job Order Cost System

- Costs are assigned to each job or batch.
- A job may be for a specific order or inventory.
- **A key feature:** Each job or batch has its own distinguishing characteristics.
- **The objective:** To compute the cost per job.
- Measures costs for each job completed - not for set time periods.

SO 1 Explain the characteristics and purposes of cost accounting.
Cost Accounting Systems

Illustration 2-1

Job Order Cost System
Two jobs: Wedding Invitations and Menus

Job # 9501
- Black ink
- Typesetting
- 225 Invitations
- Vellum stock, pure white

Job # 9502
- Typesetting
- Lamination
- Colored ink
- Yellow stock
- 50 Copies

Each job has distinguishing characteristics and related costs.

SO 1 Explain the characteristics and purposes of cost accounting.
Cost Accounting Systems

Process Cost System

- Used when a large volume of similar products are manufactured - (Cereal, Automobiles, Compact Discs, Paint).

- Costs are accumulated for a specific time period - (week or month).

- Costs are assigned to departments or processes for a set period of time.

SO 1 Explain the characteristics and purposes of cost accounting.
**Cost Accounting Systems**

**Process Cost System**

**Compact Disc Production**

1. Oil is pumped.
2. Benzene is removed.
3. The benzene is made into pellets…
4. …from which compact discs are produced.

Similar products are produced over a specified time period.

*SO 1* Explain the characteristics and purposes of cost accounting.
Cost Accounting Systems

Review Question

Cost accounting involves the measuring, recording, and reporting of:

a. Product costs.
b. Future costs.
c. Manufacturing processes.
d. Managerial accounting decisions.
Job Order Cost Flow

The cost flow parallels the physical flow of the materials as they are converted into finished goods

- Manufacturing costs are assigned to Work in Process.
- Cost of completed jobs is transferred to Finished Goods.
- When units are sold, the cost is transferred to Cost of Goods Sold.
SO 2  Describe the flow of costs in a job order costing system.
Job Order Cost Flow

Illustration 2-4

<table>
<thead>
<tr>
<th>Raw Materials Inventory</th>
<th>Work in Process Inventory</th>
<th>Finished Goods Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Purchases</td>
<td>(4) Direct materials used</td>
<td>(7) Cost of completed jobs</td>
</tr>
<tr>
<td></td>
<td>(5) Direct labor used</td>
<td>(8) Cost of goods sold</td>
</tr>
<tr>
<td></td>
<td>(6) Overhead applied</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factory Labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) Factory labor incurred</td>
</tr>
<tr>
<td>(5) Factory labor used</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturing Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual overhead incurred:</td>
</tr>
<tr>
<td>(3) Deprecation Insurance Repairs</td>
</tr>
<tr>
<td>(4) Indirect materials used</td>
</tr>
<tr>
<td>(5) Indirect labor used</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost of Goods Sold</th>
</tr>
</thead>
<tbody>
<tr>
<td>(8) Cost of goods sold</td>
</tr>
</tbody>
</table>

Key to Entries:

<table>
<thead>
<tr>
<th>Accumulation</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purchase raw materials</td>
<td>4. Raw materials are used</td>
</tr>
<tr>
<td>2. Incur factory labor</td>
<td>5. Factory labor is used</td>
</tr>
<tr>
<td>3. Incur manufacturing overhead</td>
<td>6. Overhead is used</td>
</tr>
<tr>
<td>7. Completed goods are recognized</td>
<td>8. Cost of goods sold is recognized</td>
</tr>
</tbody>
</table>
Job Order Cost Flow

Accumulating Manufacturing Costs

Raw Material Costs

Illustration: Wallace Manufacturing purchases 2,000 handles (Stock No. AA2746) at $5 per unit ($10,000) and 800 modules (Stock No. AA2850) at $40 per unit ($32,000) for a total cost of $42,000 ($10,000 + $32,000). The entry to record this purchase on January 4 is:

<table>
<thead>
<tr>
<th>Date</th>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 4</td>
<td>Raw Materials Inventory</td>
<td>42,000</td>
</tr>
<tr>
<td></td>
<td>Accounts Payable</td>
<td>42,000</td>
</tr>
</tbody>
</table>
Factory Labor Costs

Consists of three costs:

1. Gross earnings of factory workers,
2. Employer payroll taxes on these earnings, and
3. Fringe benefits incurred by the employer.
Factory Labor Costs

**Illustration:** Wallace Manufacturing incurs $32,000 of factory labor costs. Of that amount, $27,000 relates to wages payable and $5,000 relates to payroll taxes payable in February. The entry to record factory labor for the month is:

```
Jan. 31  Factory Labor                         32,000
          Factory Wages Payable                  27,000
          Employer Payroll Taxes Payable         5,000
```
Many types of overhead costs
- For example, machinery repairs, indirect materials, and indirect labor

Debit to Manufacturing Overhead
- Daily as incurred or
- Periodically through adjusting entries

Manufacturing overhead is a control account
- Subsidiary ledger consists of individual accounts for each type of cost

SO 2 Describe the flow of costs in a job order costing system.
### Manufacturing Overhead Costs

**Illustration:** Using assumed data, the summary entry for manufacturing overhead in Wallace Manufacturing Company is:

<table>
<thead>
<tr>
<th>Date</th>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 31</td>
<td>Manufacturing Overhead</td>
<td>13,800</td>
</tr>
<tr>
<td></td>
<td>Utilities Payable</td>
<td>4,800</td>
</tr>
<tr>
<td></td>
<td>Prepaid Insurance</td>
<td>2,000</td>
</tr>
<tr>
<td></td>
<td>Accounts Payable (for repairs)</td>
<td>2,600</td>
</tr>
<tr>
<td></td>
<td>Accumulated Depreciation</td>
<td>3,000</td>
</tr>
<tr>
<td></td>
<td>Property Taxes Payable</td>
<td>1,400</td>
</tr>
</tbody>
</table>

**SO 2** Describe the flow of costs in a job order costing system.
During the current month, KRC Company incurs the following manufacturing costs:

(a) Raw material purchases of $4,200 on account.

(b) Incurs factory labor of $18,000. Of that amount, $15,000 relates to wages payable and $3,000 relates to payroll taxes payable.

(c) Factory utilities of $2,200 are payable, prepaid factory insurance of $1,800 has expired, and depreciation on the factory building is $3,500.

Prepare journal entries for each type of manufacturing cost.

SO 2 Describe the flow of costs in a job order costing system.
Prepare journal entries for each type of manufacturing cost.

(a) Raw material purchases of $4,200 on account.

\[
\begin{align*}
\text{Raw Materials Inventory} & \quad 4,200 \\
\text{Accounts Payable} & \quad 4,200
\end{align*}
\]

(b) Incurs factory labor of $18,000. Of that amount, $15,000 relates to wages payable and $3,000 relates to payroll taxes payable.

\[
\begin{align*}
\text{Factory Labor} & \quad 18,000 \\
\text{Factory Wages Payable} & \quad 15,000 \\
\text{Employer Payroll Taxes Payable} & \quad 3,000
\end{align*}
\]
### Job Order Cost Flow

Prepare journal entries for each type of manufacturing cost.

(c) Factory utilities of $2,200 are payable, prepaid factory insurance of $1,800 has expired, and depreciation on the factory building is $3,500.

<table>
<thead>
<tr>
<th>Account</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Overhead</td>
<td>7,500</td>
</tr>
<tr>
<td>Utilities Payable</td>
<td>2,200</td>
</tr>
<tr>
<td>Prepaid Insurance</td>
<td>1,800</td>
</tr>
<tr>
<td>Accumulated Depreciation</td>
<td>3,500</td>
</tr>
</tbody>
</table>

**SO 2** Describe the flow of costs in a job order costing system.
Review Question

When incurred, factory labor costs are debited to:


b. Factory Wages Expense.

c. Factory Labor.

d. Factory Wages Payable.

Solution on notes page

Page 2-22

SO 2 Describe the flow of costs in a job order costing system.
Assigning Manufacturing Costs to Work in Process

- Manufacturing costs are assigned to Work in Process with
  
  **Debits to** Work in Process Inventory
  
  **Credits to** Raw Materials Inventory
  Factory Labor
  Manufacturing Overhead

- Entries to Work in Process are usually made **monthly**.

- An essential accounting record in assigning costs to jobs is a **job cost sheet**.

**SO 3** Explain the nature and importance of a job cost sheet.
Job Order Cost Flow

Job Cost Sheet

- Used to record costs of a specific job.
- Used to determine the total and unit costs of a completed job.
- Each entry to a Work in Process Inventory must be accompanied by a corresponding posting to one or more job cost sheets.
**Job Order Cost Flow**

**Job Cost Sheet**

<table>
<thead>
<tr>
<th>Job No.</th>
<th>Quantity</th>
<th>Item</th>
<th>Date Requested</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Direct Materials</th>
<th>Direct Labor</th>
<th>Manufacturing Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Cost of completed job**

- Direct materials
  - $____________
- Direct labor
  - $____________
- Manufacturing overhead
  - $____________

**Total cost**

- $____________

**Unit cost (total dollars ÷ quantity)**

- $____________

**SO 3 Explain the nature and importance of a job cost sheet.**
Assigning Manufacturing Costs to WIP

Raw Material Costs

- Assigned to a job when materials are issued
- A materials requisition slip
  - Written authorization for issuing raw materials.
  - May be directly issued to use on a job - direct materials.
  - May be considered indirect materials - part of manufacturing overhead.

SO 3 Explain the nature and importance of a job cost sheet.
**Materials Requisition Slip**

Wallace Manufacturing Company

**Materials Requisition Slip**

<table>
<thead>
<tr>
<th>Deliver to:</th>
<th>Assembly Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge to:</td>
<td>Work in Process—Job No. 101</td>
</tr>
<tr>
<td>Req. No.</td>
<td>R247</td>
</tr>
<tr>
<td>Date:</td>
<td>1/6/11</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
<th>Stock No.</th>
<th>Cost per Unit</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>200</td>
<td>Handles</td>
<td>AA2746</td>
<td>$5.00</td>
<td>$1,000</td>
</tr>
</tbody>
</table>

Requested by **Bruce Howard**

Received by **Herb Crowley**

Approved by **Kap Shin**

Costed by **Heather Remmen**

**SO 3 Explain the nature and importance of a job cost sheet.**
Assigning Raw Material Costs

**Illustration:** Wallace Manufacturing uses $24,000 of direct materials and $6,000 of indirect materials in January, the entry is:

```
Jan. 31  Work in Process Inventory     24,000
        Manufacturing Overhead          6,000
        Raw Materials Inventory         30,000
```

*SO 3 Explain the nature and importance of a job cost sheet.*
Assigning Raw Materials Cost

The sum of the direct materials columns of the job cost sheets should equal the direct materials debited to Work in Process Inventory.
Assigned to jobs on the basis of time tickets

Time tickets are prepared when the work is performed

Time tickets indicate

- Employee
- Hours worked
- Account and job charged
- Total labor cost

SO 3 Explain the nature and importance of a job cost sheet.
### Job Order Cost Flow

#### Time Ticket

Wallace Manufacturing Company

**Time Ticket**

<table>
<thead>
<tr>
<th>Employee</th>
<th>John Nash</th>
<th>Date: 1/6/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charge to:</td>
<td>Work in Process</td>
<td>Employee No.: 124</td>
</tr>
<tr>
<td>Job No.:</td>
<td>101</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Hourly Rate</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start</td>
<td>Stop</td>
<td>Total Hours</td>
</tr>
<tr>
<td>0800</td>
<td>1200</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Approved by [Signature]

Costed by [Signature]

**SO 3** Explain the nature and importance of a job cost sheet.
Assigning Factory Labor Costs

Illustration: The time tickets are later sent to the payroll department, which applies the employee’s hourly wage rate and computes the total labor cost. If the $32,000 total factory labor cost consists of $28,000 of direct labor and $4,000 of indirect labor, the entry is:

```
Jan. 31   Work in Process Inventory      28,000
          Manufacturing Overhead           4,000
                                      Factory Labor     32,000
```
**Job Order Cost Flow**

**GENERAL LEDGER**

<table>
<thead>
<tr>
<th>Work in Process Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/31 24,000</td>
</tr>
<tr>
<td>1/31 28,000</td>
</tr>
</tbody>
</table>

**SUBSIDIARY LEDGER**

<table>
<thead>
<tr>
<th>Job Cost Sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job No. 101</td>
</tr>
<tr>
<td>Job No. 102</td>
</tr>
<tr>
<td>Job No. 103</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Date</th>
<th>Direct Materials</th>
<th>Direct Labor</th>
<th>Manufacturing Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/6</td>
<td>1,000</td>
<td>9,000</td>
<td></td>
</tr>
<tr>
<td>1/10</td>
<td>7,000</td>
<td>9,000</td>
<td></td>
</tr>
<tr>
<td>1/12</td>
<td>4,000</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>1/26</td>
<td>6,000</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>1/31</td>
<td>6,000</td>
<td>6,000</td>
<td></td>
</tr>
</tbody>
</table>

**Illustration 2-9**

**Job Cost Sheets After Posting**

The sum of the direct labor columns of the job cost sheets should equal the direct labor debited to Work in Process Inventory.

SO 3 Explain the nature and importance of a job cost sheet.
The source documents for assigning material and factory labor costs to job cost sheets are:

a. Invoices and time tickets.

b. Invoices and payroll register.

c. Materials requisition slips and payroll register.

d. Materials requisition slips and time tickets.

Review Question

The source documents for assigning material and factory labor costs to job cost sheets are:

a. Invoices and time tickets.

b. Invoices and payroll register.

c. Materials requisition slips and payroll register.

d. Materials requisition slips and time tickets.
Assigning Manufacturing Overhead Costs

- Relates to production operations as a whole.
- Cannot be assigned to specific jobs based on actual costs incurred.
- Must be assigned to work in process and to specific jobs on an estimated basis through the use of a ...

Predicted Overhead Rate

SO 4 Indicate how the predetermined overhead rate is determined and used.
Predetermined Overhead Rate

Based on the relationship between *estimated* annual overhead costs and *expected* annual operating activity

Expressed in terms of an activity base such as

- Direct labor costs
- Direct labor hours
- Machine hours
- Any other activity that is an equitable base for applying overhead costs to jobs
Assigning Manufacturing Overhead Costs

Predetermined Overhead Rate

- Established at the beginning of the year.
- May use a single, company-wide predetermined rate.
- May use a different rate for each department and each department may have a different activity base.
- Formula for computing the predetermined rate overhead rate is

\[
\text{Estimated Annual Overhead Costs} \div \text{Expected Annual Operating Activity} = \text{Predetermined Overhead Rate}
\]

Illustration 2-10

SO 4 Indicate how the predetermined overhead rate is determined and used.
Assigning Manufacturing Overhead Costs

Assigned to Work in Process during the period to get timely information about the cost of a completed job.

**SO 4** Indicate how the predetermined overhead rate is determined and used.
Assigning Manufacturing Overhead Costs

Illustration: Wallace Manufacturing uses direct labor cost as the activity base. Assuming that the company expects annual overhead costs to be $280,000 and direct labor costs for the year to be $350,000, compute the overhead rate.

\[
\frac{280,000}{350,000} = 80\%
\]

This means that for every dollar of direct labor, Wallace will assign 80 cents of manufacturing overhead to a job.
Assigning Manufacturing Overhead Costs

**Illustration:** Wallace Manufacturing applies manufacturing overhead to work in process when it assigns direct labor costs. Calculate the amount of applied overhead assuming direct labor costs were $28,000.

\[ \$28,000 \times 80\% = \$22,400 \]

The following entry records this application.

\[
\begin{align*}
\text{Jan. 31} & \quad \text{Work in Process Inventory} & 22,400 \\
& \quad \text{Manufacturing Overhead} & 22,400
\end{align*}
\]
Assigning Manufacturing Overhead

The sum of the manufacturing overhead columns of the job cost sheets should equal the manufacturing overhead debited (i.e., applied) to Work in Process Inventory.

**SO 4** Indicate how the predetermined overhead rate is determined and used.
Assigning Manufacturing Overhead Costs

At the End of Each Month:

The balance in the Work in Process Inventory should equal the sum of the costs shown on the job cost sheets of unfinished jobs.

<table>
<thead>
<tr>
<th>Work in Process Inventory</th>
<th>Job Cost Sheets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan. 31 24,000</td>
<td>No. 101 $39,000</td>
</tr>
<tr>
<td>31 28,000</td>
<td>102 23,200</td>
</tr>
<tr>
<td>31 22,400</td>
<td>103 12,200</td>
</tr>
<tr>
<td><strong>74,400</strong></td>
<td><strong>$74,400</strong></td>
</tr>
</tbody>
</table>

Illustration 2-13

SO 4 Indicate how the predetermined overhead rate is determined and used.
Review Question

The formula for computing the predetermined manufacturing overhead rate is estimated annual overhead costs divided by an expected annual operating activity, expressed as:

a. Direct labor cost.

b. Direct labor hours.

c. Machine hours.

d. Any of the above.

SO 4 Indicate how the predetermined overhead rate is determined and used.
KRC Company is working on two job orders. The job cost sheets show the following:

Direct materials—Job 120 $6,000; Job 121 $3,600

Direct labor—Job 120 $4,000; Job 121 $2,000

Manufacturing overhead—Job 120 $5,000; Job 121 $2,500

Prepare the three summary entries to record the assignment of costs to Work in Process from the data on the job cost sheets.
### Job Order Cost Flow

**Do it!**

The three summary entries are:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in Process Inventory</td>
<td>9,600</td>
</tr>
<tr>
<td>Raw Materials Inventory</td>
<td>9,600</td>
</tr>
<tr>
<td>Work in Process Inventory</td>
<td>6,000</td>
</tr>
<tr>
<td>Factory Labor</td>
<td>6,000</td>
</tr>
<tr>
<td>Work in Process Inventory</td>
<td>7,500</td>
</tr>
<tr>
<td>Manufacturing Overhead</td>
<td>7,500</td>
</tr>
</tbody>
</table>

**SO 4** Indicate how the predetermined overhead rate is determined and used.
Assigning Costs to Finished Goods

When a job is completed, the costs are summarized and the job cost sheet is completed.

**Job Order Cost Flow**

### Job Cost Sheet

<table>
<thead>
<tr>
<th>Date</th>
<th>Direct Materials</th>
<th>Direct Labor</th>
<th>Manufacturing Overhead</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/6</td>
<td>$1,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/10</td>
<td></td>
<td>$9,000</td>
<td>$7,200</td>
</tr>
<tr>
<td>1/12</td>
<td>$7,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/26</td>
<td>$4,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1/31</td>
<td></td>
<td>$6,000</td>
<td>4,800</td>
</tr>
<tr>
<td></td>
<td>$12,000</td>
<td>$15,000</td>
<td>$12,000</td>
</tr>
</tbody>
</table>

Cost of completed job

- Direct materials: $12,000
- Direct labor: $15,000
- Manufacturing overhead: $12,000
- Total cost: $39,000

Unit cost ($39,000 ÷ 1,000) = $39.00
Job Order Cost Flow

Assigning Costs to Finished Goods

**Illustration:** When a job is finished, Wallace makes an entry to transfer its total cost to finished goods inventory.

Jan. 31 Finished Goods Inventory 39,000
Work in Process Inventory 39,000

SO 5 Prepare entries for jobs completed and sold.
Illustration: On January 31 Wallace Manufacturing sells on account Job 101. The job cost $39,000, and it sold for $50,000. The entries to record the sale and recognize cost of goods sold are:

Jan. 31 Accounts Receivable 50,000
    Sales 50,000
    Cost of Goods Sold 39,000
    Finished Goods Inventory 39,000
In M Company, Job No. 26 is completed at a cost of $4,500 and later sold for $7,000 cash. A correct entry is:

- a. Debit Finished Goods Inventory $7,000 and credit Work in Process Inventory $7,000.
- b. Debit Cost of Goods Sold $7,000 and credit Finished Goods Inventory $7,000.
- c. Debit Finished Goods Inventory $4,500 and credit Work in Process Inventory $4,500.
- d. Debit Accounts Receivable $7,000 and credit Sales $7,000.
Job Order Costing for Service Companies

While service companies do not have inventory, the techniques of job order costing are still quite useful in many service-industry environments. Consider, for example, the **Mayo Clinic** (health care), **PricewaterhouseCoopers** (accounting firm), and **Goldman Sachs** (financial services firm).
Summary of Job Order Cost Flow

**Flow of Costs**

<table>
<thead>
<tr>
<th>Raw Materials Inventory</th>
<th>Work in Process Inventory</th>
<th>Finished Goods Inventory</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) 42,000</td>
<td>(4) 24,000</td>
<td>(7) 39,000</td>
</tr>
<tr>
<td>Bal. 12,000</td>
<td>(5) 28,000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6) 22,400</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bal. 35,400</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factory Labor</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(2) 32,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) 32,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bal. 35,400</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manufacturing Overhead</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(3) 13,800</td>
<td>(6) 22,400</td>
<td></td>
</tr>
<tr>
<td>(4) 6,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) 4,000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bal. 1,400</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cost of Goods Sold</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(8) 39,000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Key to Entries:**

- **Accumulation**
  1. Purchase raw materials
  2. Incur factory labor
  3. Incur manufacturing overhead

- **Assignment**
  4. Raw materials are used
  5. Factory labor is used
  6. Overhead is applied
  7. Completed goods are recognized
  8. Cost of goods sold is recognized

*SO 5 Prepare entries for jobs completed and sold.*
**Job Order Cost Flow**

**Summary of Job Order Cost Flow**

**Flow of Documents**

Source Documents

- Materials Requisition Slips
- Labor Time Tickets
- Predetermined Overhead Rate

Job Cost Sheet

The job cost sheet summarizes the cost of jobs completed and not completed at the end of the accounting period. Jobs completed are transferred to finished goods to await sale.

SO 5 Prepare entries for jobs completed and sold.
During the current month, KRC Corporation completed Job 109 and Job 112. Job 109 cost $19,000 and Job 112 costs $27,000. Job 112 was sold on account for $42,000. Journalize the entries for the completion of the two jobs and the sale of Job 112.

Finished Goods Inventory 46,000
Work in Process Inventory 46,000
Accounts Receivable 42,000
Sales 42,000
Cost of Goods Sold 27,000
Finished Goods Inventory 27,000

SO 5 Prepare entries for jobs completed and sold.
Advantages and Disadvantages

Advantages

- More precise in assignment of costs to projects than process costing.
- Provides more useful information for determining the profitability of particular projects and for estimating costs when preparing bids on future jobs.

Disadvantage

- Requires a significant amount of data entry.

SO 5 Prepare entries for jobs completed and sold.
The cost of goods manufactured schedule now shows manufacturing overhead *applied* rather than actual overhead costs.

Applied overhead is added to direct materials and direct labor to determine total manufacturing costs.

**WALLACE MANUFACTURING COMPANY**
Cost of Goods Manufactured Schedule
For the Month Ended January 31, 2011

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work in process, January 1</td>
<td>$0</td>
</tr>
<tr>
<td>Direct materials used</td>
<td>$24,000</td>
</tr>
<tr>
<td>Direct labor</td>
<td>28,000</td>
</tr>
<tr>
<td><strong>Manufacturing overhead applied</strong></td>
<td>22,400</td>
</tr>
<tr>
<td>Total manufacturing costs</td>
<td>74,400</td>
</tr>
<tr>
<td>Total cost of work in process</td>
<td>74,400</td>
</tr>
<tr>
<td>Less: Work in process, January 31</td>
<td>35,400</td>
</tr>
<tr>
<td>Cost of goods manufactured</td>
<td>39,000</td>
</tr>
</tbody>
</table>
# Reporting Job Cost Data

**Partial Income Statement**

<table>
<thead>
<tr>
<th>WALLACE MANUFACTURING COMPANY</th>
<th>Income Statement (partial)</th>
<th>For the Month Ending January 31, 2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales</td>
<td>$50,000</td>
<td></td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finished goods inventory, January 1</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td><strong>Cost of goods manufactured (See Illustration 2-18)</strong></td>
<td>39,000</td>
<td></td>
</tr>
<tr>
<td>Cost of goods available for sale</td>
<td>39,000</td>
<td></td>
</tr>
<tr>
<td>Less: Finished goods inventory, January 31</td>
<td>$0</td>
<td></td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>39,000</td>
<td></td>
</tr>
<tr>
<td>Gross profit</td>
<td>$11,000</td>
<td></td>
</tr>
</tbody>
</table>

*SO 5 Prepare entries for jobs completed and sold.*
Reporting Job Cost Data

Under- or Overapplied Overhead

- A *debit balance* in manufacturing overhead means that overhead is **underapplied**.
- A *credit balance* in manufacturing overhead means that overhead is **overapplied**.

<table>
<thead>
<tr>
<th>Illustration 2-20</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Manufacturing Overhead</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Actual (Costs incurred)</td>
<td></td>
</tr>
<tr>
<td>Applied (Costs assigned)</td>
<td></td>
</tr>
</tbody>
</table>

*SO 6*  Distinguish between under- and overapplied manufacturing overhead.
Under- or Overapplied Overhead

Any **Year-End Balance** in manufacturing overhead is eliminated by adjusting cost of goods sold.

- Underapplied overhead is **debited** to COGS
- Overapplied overhead is **credited** to COGS
Illustration: Wallace Manufacturing has a $2,500 credit balance in Manufacturing Overhead at December 31. The adjusting entry for the over-applied overhead is:

<table>
<thead>
<tr>
<th>Date</th>
<th>Account Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 31</td>
<td>Manufacturing Overhead</td>
<td>2,500</td>
</tr>
<tr>
<td></td>
<td>Cost of Good Sold</td>
<td>2,500</td>
</tr>
</tbody>
</table>

SO 6 Distinguish between under- and overapplied manufacturing overhead.
Manufacturing overhead is underapplied if:

a. Actual overhead is less than applied.

b. Actual overhead is greater than applied.

c. The predetermined rate equals the actual rate.

d. Actual overhead equals applied overhead.

Review Question

SO 6 Distinguish between under- and overapplied manufacturing overhead.
For KRC Company, the predetermined overhead rate is 140% of direct labor cost. During the month, KRC incurred $90,000 of factory labor costs, of which $80,000 is direct labor and $10,000 is indirect labor. Actual overhead incurred was $119,000. Compute the amount of manufacturing overhead applied during the month. Determine the amount of under- or overapplied manufacturing overhead.

Manufacturing overhead applied = (140% x $80,000) = $112,000

Underapplied manufacturing overhead = ($119,000 - $112,000) = $7,000

SO 6 Distinguish between under- and overapplied manufacturing overhead.
There are about 17.6 million sole proprietorships in the U.S. The most common type of sole proprietorship is construction contractor.

During a recent year, 25% of all sole proprietorships reported losses. The safest business is surveying and mapping, with only 6% of firms reporting losses. The riskiest business is hunting and trapping, with 76% of firms reporting losses.
About.com ranked the top ten business opportunities for 2005: business coach (motivates managers); business broker (brings together buyers and sellers of businesses); garage-organizing service; designing and producing smart (customized) clothes; medical transcription; trash removal; anti-aging spas; college admissions consulting; translation services; gaming-related businesses.
Interestingly, instead of starting your own business from scratch, perhaps you think it makes more sense to purchase a franchise. Initial investment varies, and annual franchise fees range from about $20,000 up to $80,000. The nearby chart of some well-known franchises shows the investment you typically need to make for these franchises. As you can see, you have to generate considerable revenue to cover the investment and related franchise fees. That’s a lot of overhead.
Suppose that you decide to start a landscape business. You use an old pickup truck that you’ve fully paid for. You store the truck and other equipment in your parents’ barn, and you store trees and shrubs on their land. Your parents will not charge you for the use of these facilities for the first two years, but beginning in the third year they will charge a reasonable rent. Your mother helps you by answering phone calls and providing customers with information. She doesn’t charge you for this service, but she plans on doing it for only your first two years in business.

In pricing your services, should you include charges for the truck, the barn, the land, and your mother’s services when calculating your product cost?
In pricing your services, should you include charges for the truck, the barn, the land, and your mother’s services when calculating your product cost?

**YES:** If you don’t include charges for these costs, your costs are understated and your profitability is overstated.

**NO:** At this point you are not actually incurring costs related to these activities, therefore you shouldn’t record charges.
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