

(20 min.) Actual costing, normal costing, manufacturing overhead.

$$\begin{aligned}
 1. \quad \text{Budgeted manufacturing overhead rate} &= \frac{\text{Budgeted manufacturing overhead costs}}{\text{Budgeted direct manufacturing labour costs}} \\
 &= \frac{\$1,750,000}{\$1,000,000} = 1.75 \text{ or } 175\%
 \end{aligned}$$

$$\begin{aligned}
 \text{Actual manufacturing overhead rate} &= \frac{\text{Actual manufacturing overhead costs}}{\text{Actual direct manufacturing labour costs}} \\
 &= \frac{\$1,862,000}{\$980,000} = 1.9 \text{ or } 190\%
 \end{aligned}$$

2. Costs of Job 626 under actual and normal costing follow:

	Normal Costing	Actual Costing
Direct materials	\$ 40,000	\$ 40,000
Direct manufacturing labour costs	30,000	30,000
Manufacturing overhead costs		
\$30,000 × 1.75; \$30,000 × 1.90	<u>52,500</u>	<u>57,000</u>
Total manufacturing costs of Job 626	<u>\$122,500</u>	<u>\$127,000</u>

$$\begin{aligned}
 3. \quad \text{Total manufacturing overhead allocated under normal costing} &= \text{Actual manufacturing labour costs} \times \text{Budgeted overhead rate} \\
 &= \$980,000 \times 1.75 \\
 &= \$1,715,000
 \end{aligned}$$

$$\begin{aligned}
 \text{Underallocated manufacturing overhead} &= \text{Actual manufacturing overhead costs} - \text{Manufacturing overhead allocated} \\
 &= \$1,862,000 - \$1,715,000 = \$147,000
 \end{aligned}$$

There is no under- or overallocated overhead under actual costing because overhead is allocated under actual costing by multiplying actual manufacturing labour costs and the actual manufacturing overhead rate. This, of course, equals the actual manufacturing overhead costs. All actual overhead costs are allocated to products. Hence, there is no under- or overallocated overhead.

4. Actual costing reflects the actual results incurred, while normal costing reflects expectations of the amount the overhead should be. Normal costing can be done in advance and thus can be used in pricing and planning decisions.

(20 -30 min.) Job costing, normal and actual costing.

$$\begin{aligned}
 1. \quad \text{Budgeted indirect-cost rate} &= \frac{\text{Budgeted indirect costs}}{\text{Budgeted direct labour-hours}} = \frac{\$8,000,000}{160,000 \text{ hours}} \\
 &= \$50 \text{ per direct labour-hour} \\
 \\ 
 \text{Actual indirect-cost rate} &= \frac{\text{Actual indirect costs}}{\text{Actual direct labour-hours}} = \frac{\$6,888,000}{164,000 \text{ hours}} \\
 &= \$42 \text{ per direct labour-hour}
 \end{aligned}$$

These rates differ because both the numerator and the denominator in the two calculations are different—one based on budgeted numbers and the other based on actual numbers.

2a.	<u>Laguna Model</u>	<u>Mission Model</u>
Normal costing		
Direct costs		
Direct materials	\$106,450	\$127,604
Direct labour	<u>36,276</u>	<u>41,410</u>
	<u>142,726</u>	<u>169,014</u>
Indirect costs		
Assembly support <sup>50x</sup> (\$50 × 900; 1,010)	<u>45,000</u>	<u>50,500</u>
	<u>45,000</u>	<u>50,500</u>
Total costs	<u><u>\$187,726</u></u>	<u><u>\$219,514</u></u>
2b. Actual costing		
Direct costs		
Direct materials	\$106,450	\$127,604
Direct labour	<u>36,276</u>	<u>41,410</u>
	<u>142,726</u>	<u>169,014</u>
Indirect costs		
Assembly support <sup>42x</sup> (\$42 × 900; 1,010)	<u>37,800</u>	<u>42,420</u>
	<u>37,800</u>	<u>42,420</u>
Total costs	<u><u>\$180,526</u></u>	<u><u>\$211,434</u></u>

3. Normal costing enables Anderson to report a job cost as soon as the job is completed, assuming that both the direct materials and direct labour costs are known at the time of use/work. Once the 900 direct labour-hours are known for the Laguna Model (June 2003), Anderson can compute the \$187,726 cost figure using normal costing. Anderson can use this information to manage the costs of the Laguna Model job as well as to bid on similar jobs later in the year. In contrast, Anderson has to wait until the December 2003 year-end to compute the \$180,526 cost figure using actual costing.