

**PROJECT MANAGEMENT IOM455  
SESSION 9  
FEBRUARY 10, 2010**

**OUTLINE**

- **Questions?**
- **Major projects in the news?**
- **Review Homework**
- **Take roll**
- **Budgeting**

**Components of cost**

*allocate  
in direct costs*

- In order to establish the internal cost of a product or service, we consider the following components:
  - Direct labor - any activity that touches the product
  - Indirect labor - any activity in support of the product that does not touch the product (*service*)
  - Indirect costs - expenses necessary to conduct business, such as utilities
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- Material - parts or material purchased from outside suppliers
  - Material overhead - activities that support the acquisition and movement of materials used in producing the products

*1/5 5%*

## **Indirect Costs**

- **Rent**
- **Utilities**
- **Depreciation**
- **Consumable materials**
- **Freight**
- **Insurance**
- **Taxes**
- **Management Information Systems**
- **Corporate allocations**

**Material Overhead**

- Purchasing
- Warehousing
- Movement of material
- Inspection
- Supplier support activities
- Inventory carrying costs
- Shipping

ABC  
activity based  
costing  
10B Sales  
Profit 500M  
Inventory cost 3B

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**Indirect Labor**

- **Personnel (Human Resources)**
- **Finance**
- **Management**
- **Engineering**

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**Adding up the costs (example)**

- **A plant generates 270,000 earned hours per year (established by standards for each of the products produced). 85% efficiency is assumed.**
- **The cost of an hour of labor, including benefits, is \$30**
- **Indirect labor totals \$30M per year**
- **Materials cost \$70M per year**
- **Material overhead costs are \$4M per year**
- **What is the cost of a product containing 0.8 hours of standard labor and \$20 of material?**
- **We first calculate the total labor rate as  
(30,000,000+270,000\*30/0.85)/270,000=\$146.40/hour**

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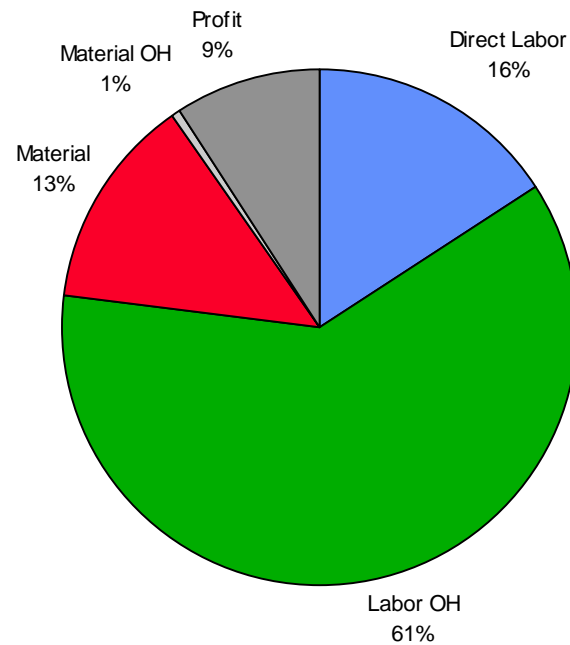
**Adding up the costs (example continued)**

- **Material overhead =  $\$4M/\$70M = 5.7\%$**
- **Direct and indirect labor =  $0.8 * \$146.40 = \$117.12$**
- **Material =  $\$20.00$**
- **Material Overhead =  $0.057 * 20 = \$1.14$**
- **Total Cost =  $\$138.26$**
- **We can separate the direct and indirect labor into:**
- **Direct labor =  $0.8 * 30 = \$24$**
- **Indirect =  $\$93.12$**
- **And you can see why everyone attacks overhead**
- **If you are independent, the profit would add another 10% or so. It is very dependent on the industry and level of investment**

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**Cost Distribution**

**Cost Distribution @ 10% Profit**



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**Adding up the costs (Second example)**

- Labor = 0.2 hours, material = \$200
- Direct and indirect labor =  $0.2 * \$146.40 = \$29.28$
- Material = \$200.00
- Material Overhead =  $0.057 * 200 = \$11.40$
- Total Cost = \$240.68
- We can separate the direct and indirect labor into:
- Direct labor =  $0.2 * 30 = \$6$
- Indirect = \$23.28
- And you can see why everyone attacks Material Costs
- If you are independent, the profit would add another 10% or so. It is very dependent on the industry and level of investment

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**Cost Distribution (second example)**

