

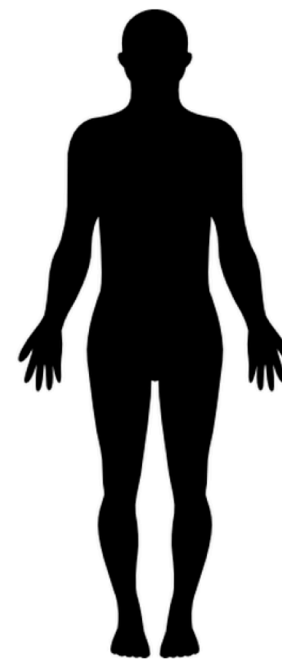
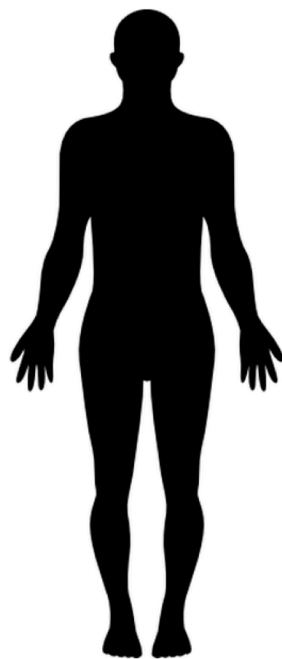


INTRODUCTION TO COST ALLOCATION

Technicalities and pro and cons of cost allocation



COST RATE



THE COST RATE IN THE COST ALLOCATION PROCESS

COSTS TO BE ASSIGNED

ATTRIBUTION BASE

TOTAL MANUFACTURING COSTS

TOTAL DIRECT LABOR HOURS

MANUFACTURING VARIABLE OH

TOTAL DIRECT COSTS



COST TRACING – DIRECT MATERIALS

0.82 ounces per biscuit

0.02 \$ per ounce

DIRECT MATERIALS
QUANTITY

*

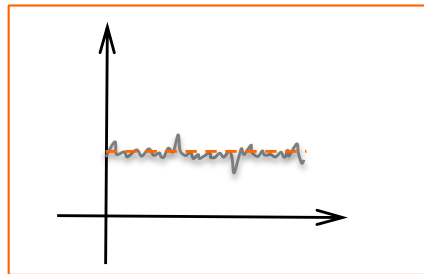
DIRECT MATERIALS
PRICE

Total quantity of material used

of product obtained

Total purchase cost

Total quantity of material acquired



COST TRACING – DIRECT MATERIALS

units, grams, liters, meters
of direct materials used in the period

units, grams, liters, meters
of product obtained

DIRECT MATERIALS
QUANTITY

*

value of the direct material
purchased in the period

units, grams, liters, meters
Of direct materials purchased

DIRECT MATERIALS
PRICE

DIRECT MATERIALS COST PER UNIT

DIRECT MATERIALS – STANDARD COSTING

The direct materials price standard is **the cost per unit of direct materials that should be incurred**. This standard should be based on the purchasing department's best estimate of the cost of raw materials. This cost is frequently based on current purchase prices. The price standard also **includes an amount for related costs such as receiving, storing, and handling**.

DIRECT MATERIALS
QUANTITY STANDARD

*

DIRECT MATERIALS
PRICE STANDARD

The direct materials quantity standard is the quantity of direct materials that should be used per unit of finished goods. **This standard is expressed as a physical measure**, such as pounds, barrels, or board feet. In setting the standard, **management considers both the quality and quantity of materials required** to manufacture the product. The standard **includes allowances for unavoidable waste and normal spoilage**.

COST TRACING – DIRECT LABOR

22.5 minutes per unit

0.45 \$ per minute

DIRECT LABOR
QUANTITY

*

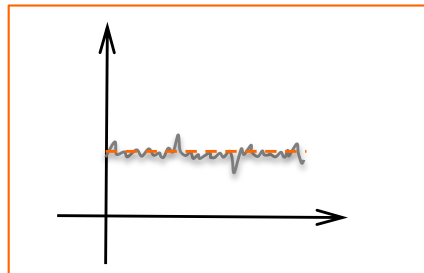
DIRECT LABOR
PRICE (OR RATE)

of hours of direc labor used

of product obtained

Wages, social security charges and fringe benefits

of hours of direc labor available



COST TRACING – DIRECT LABOR

time required to make the amount
of product obtained in the period

units, grams, liters, meters of
product obtained

total wage & fringe benefits paid
to employees for the period

hours of work available

DIRECT LABOR
EFFICIENCY

*

DIRECT LABOR
RATE

DIRECT LABOR COST PER UNIT

DIRECT LABOR – STANDARD COSTING

The direct labor price standard is **the rate per hour that should be incurred for direct labor**. This standard is based on current wage rates, adjusted for anticipated changes such as cost of living adjustments. The price standard also generally **includes employer payroll taxes and fringe benefits**, such as paid holidays and vacations.

The direct labor price standard is also called the **direct labor rate standard**.

DIRECT LABOR
QUANTITY STANDARD

*

DIRECT LABOR
PRICE STANDARD

The direct labor quantity standard is **the time that should be required to make one unit of the product**. This standard is especially critical in labor-intensive companies. **Allowances should be made in this standard for rest periods, cleanup, machine setup, and machine downtime**.

The direct labor quantity standard is also called the **direct labor efficiency standard**.

COST ALLOCATION – COST RATE

$$\frac{\text{AMOUNT OF COST TO BE ASSIGNED}}{\text{TOTAL ATTRIBUTION BASE}} *$$



OVERHEAD COST RATE

Attribution base
referring only
to Product j

= COST ASSIGNED
TO PRODUCT J

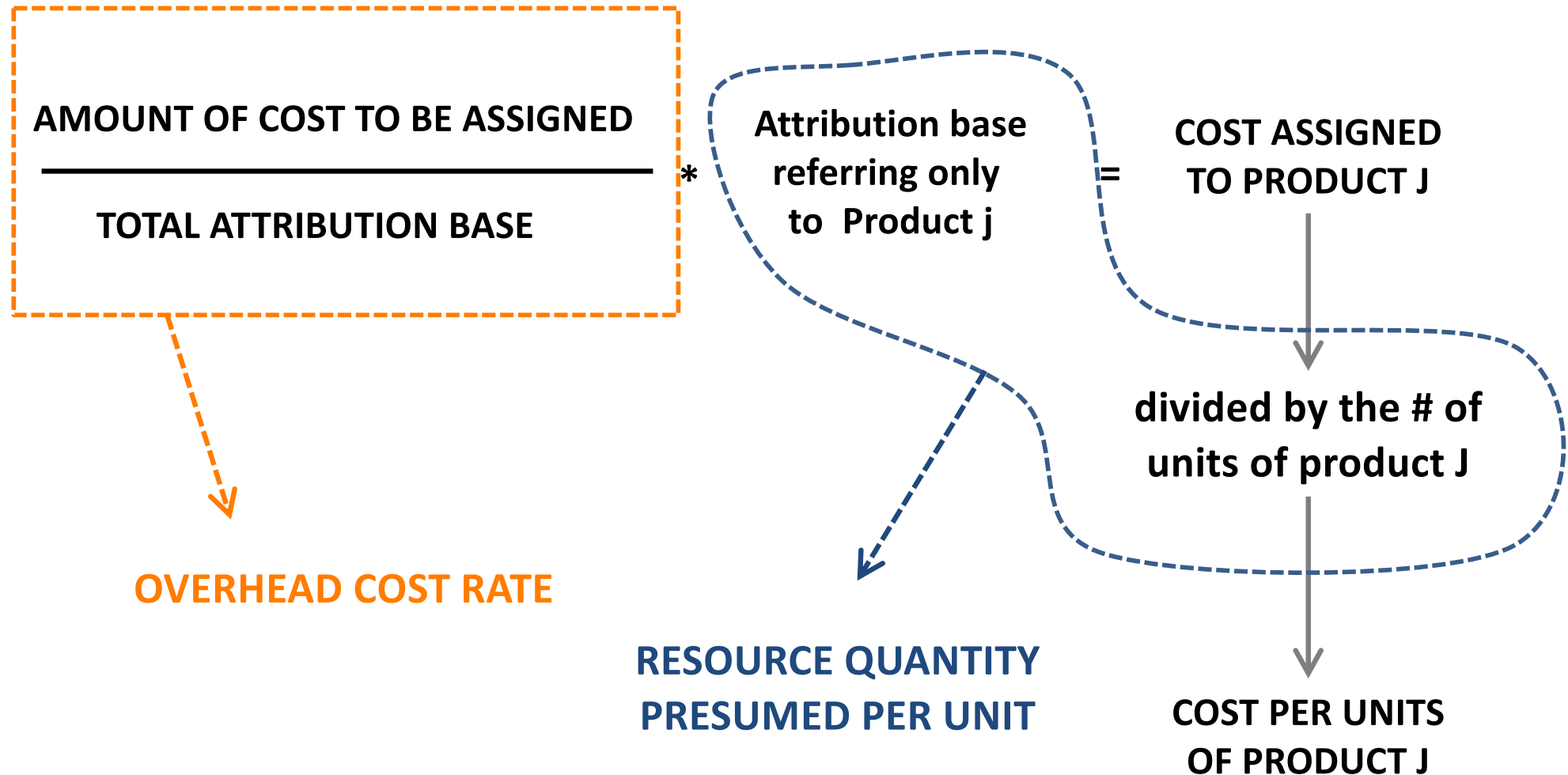


divided by the # of
units of product J

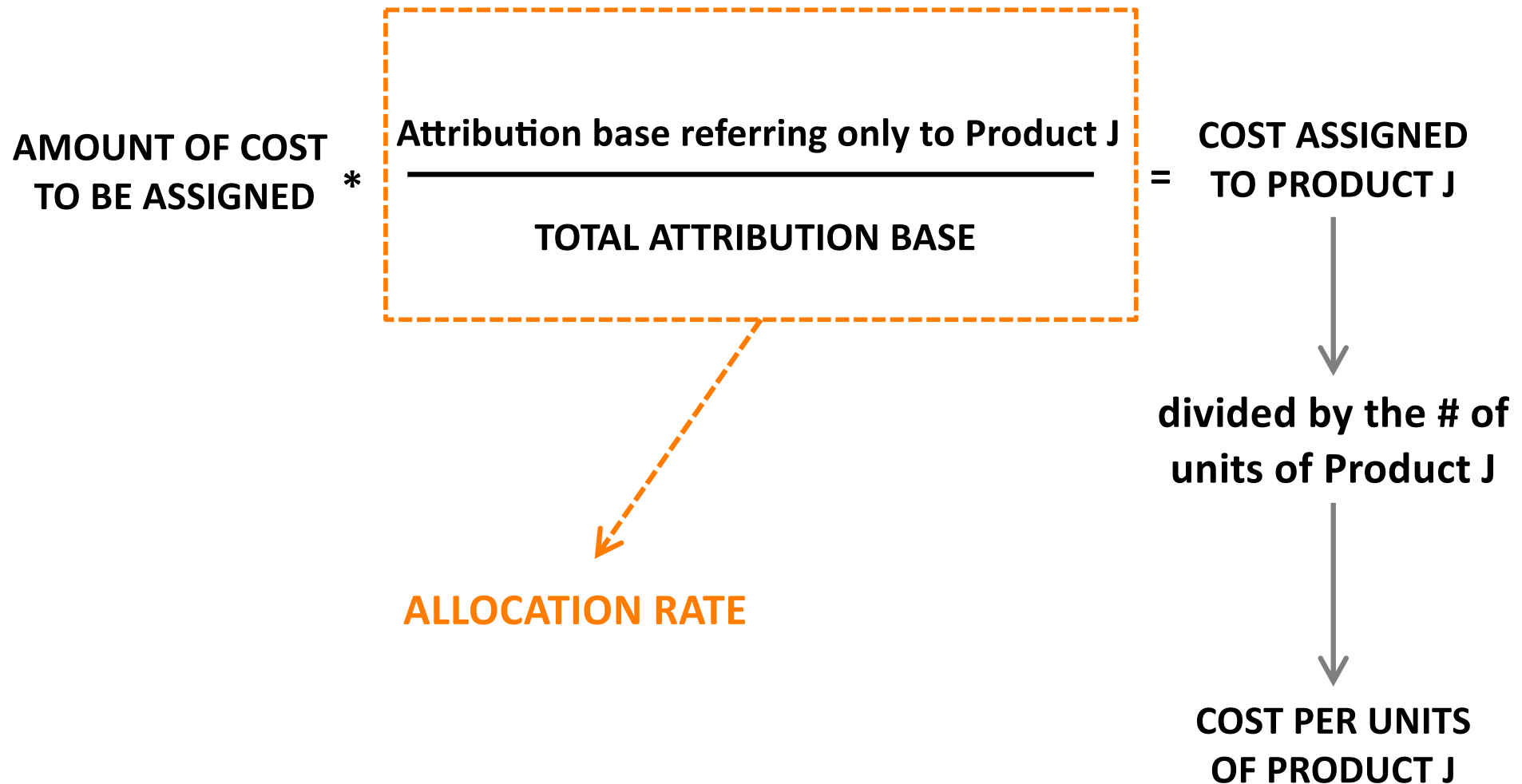


**COST PER UNITS
OF PRODUCT J**

COST ALLOCATION – COST RATE

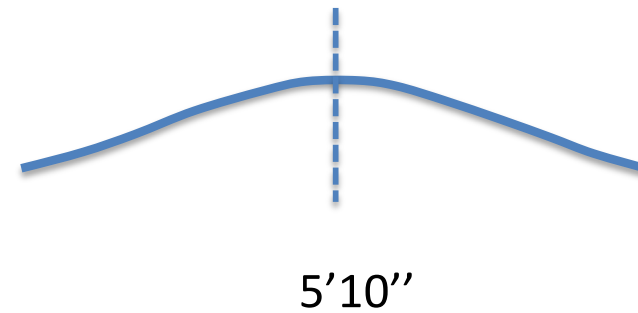
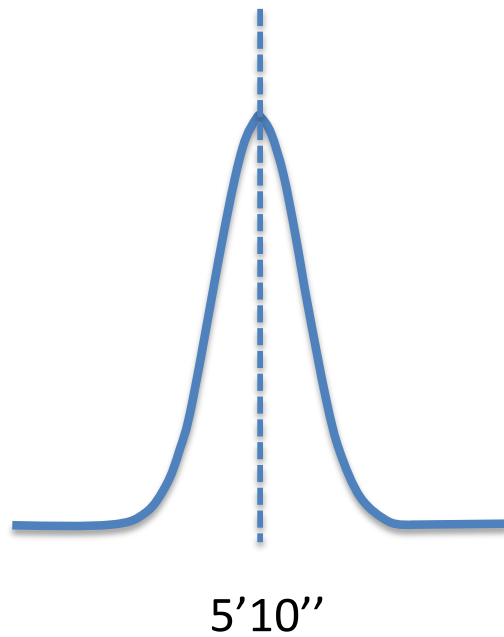


COST ALLOCATION – ALLOCATION RATE

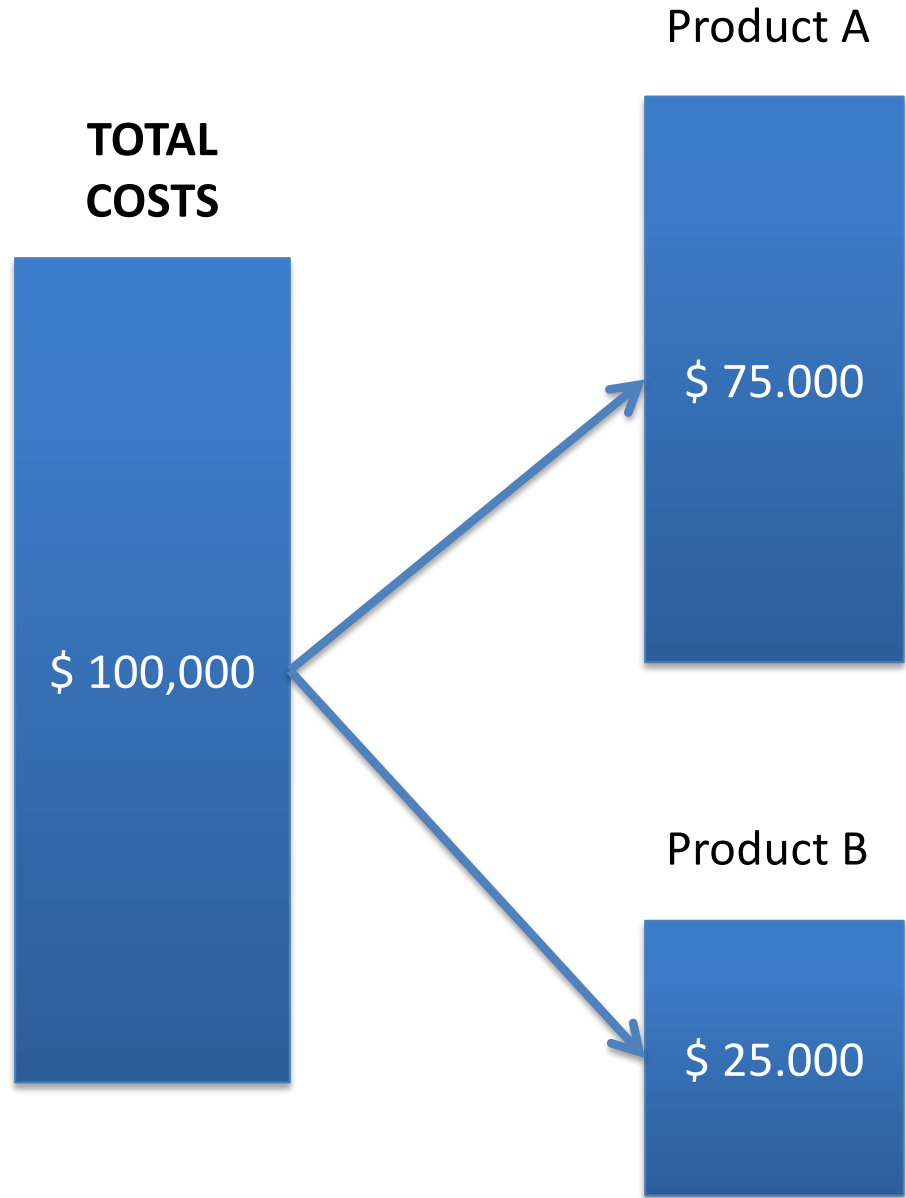


CLOTHING MANUFACTURER

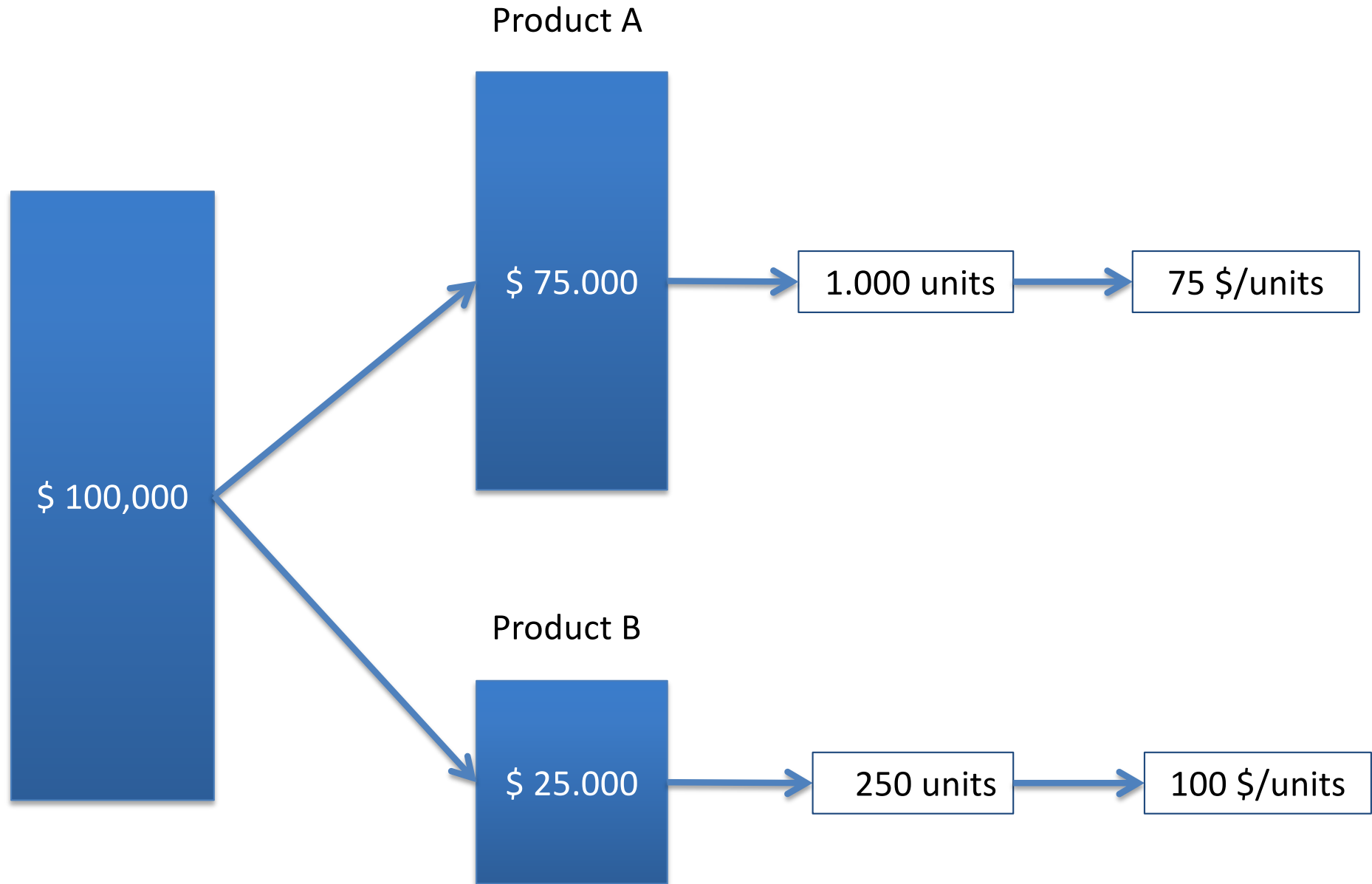
In your opinion which of the two averages is more relevant for decision making?



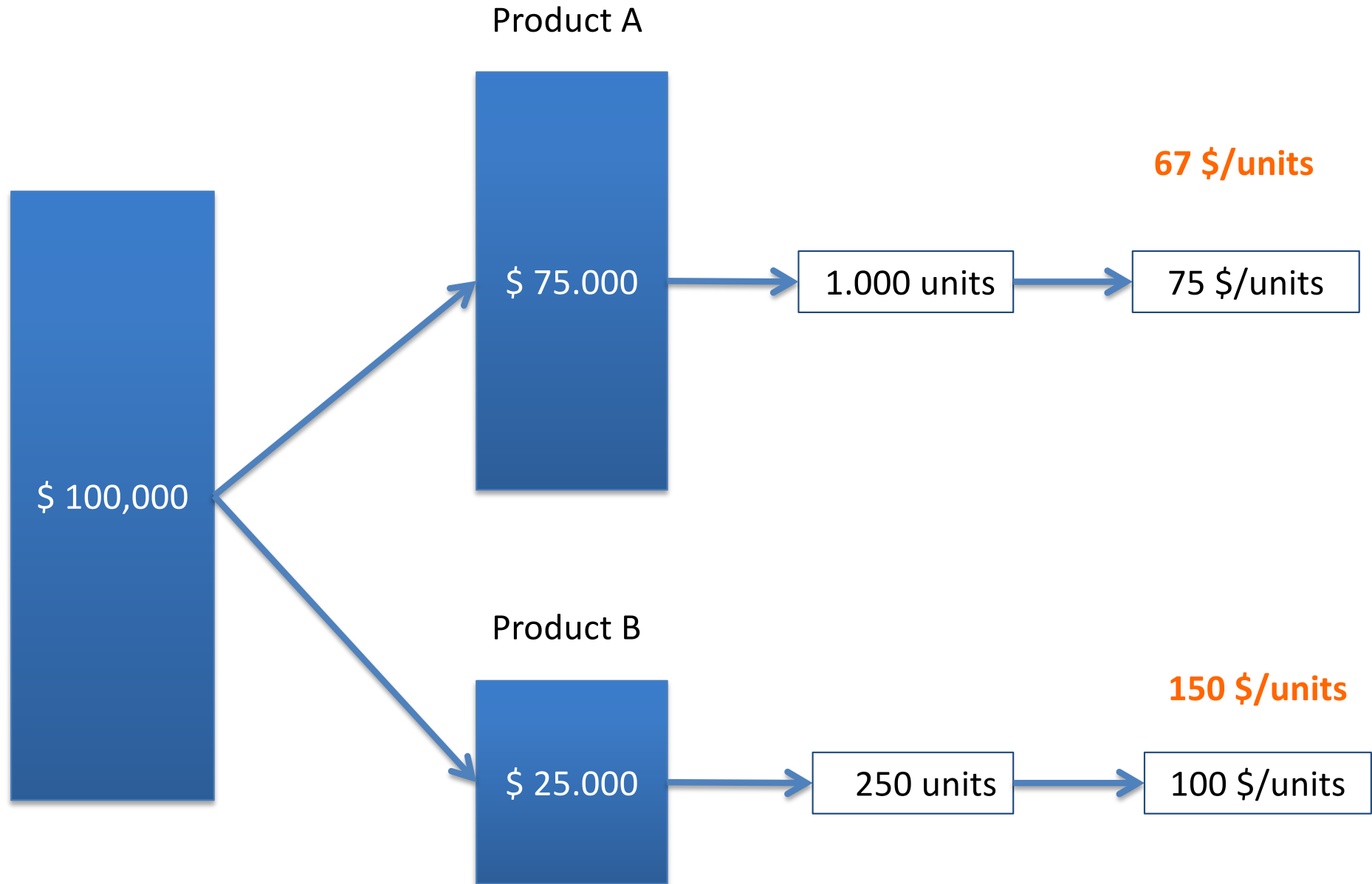
AN EXAMPLE ON COST ALLOCATION



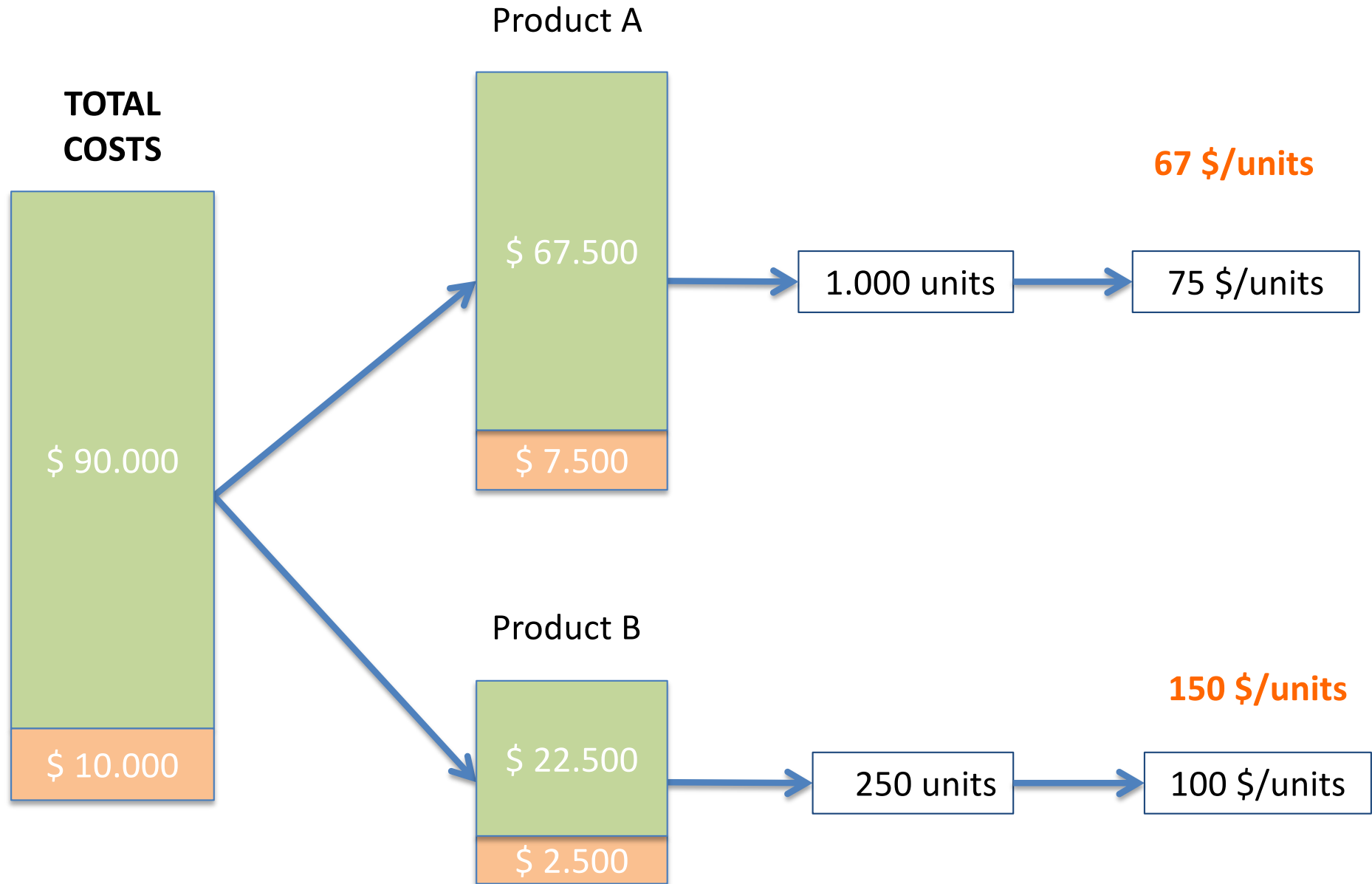
AN EXAMPLE ON COST ALLOCATION



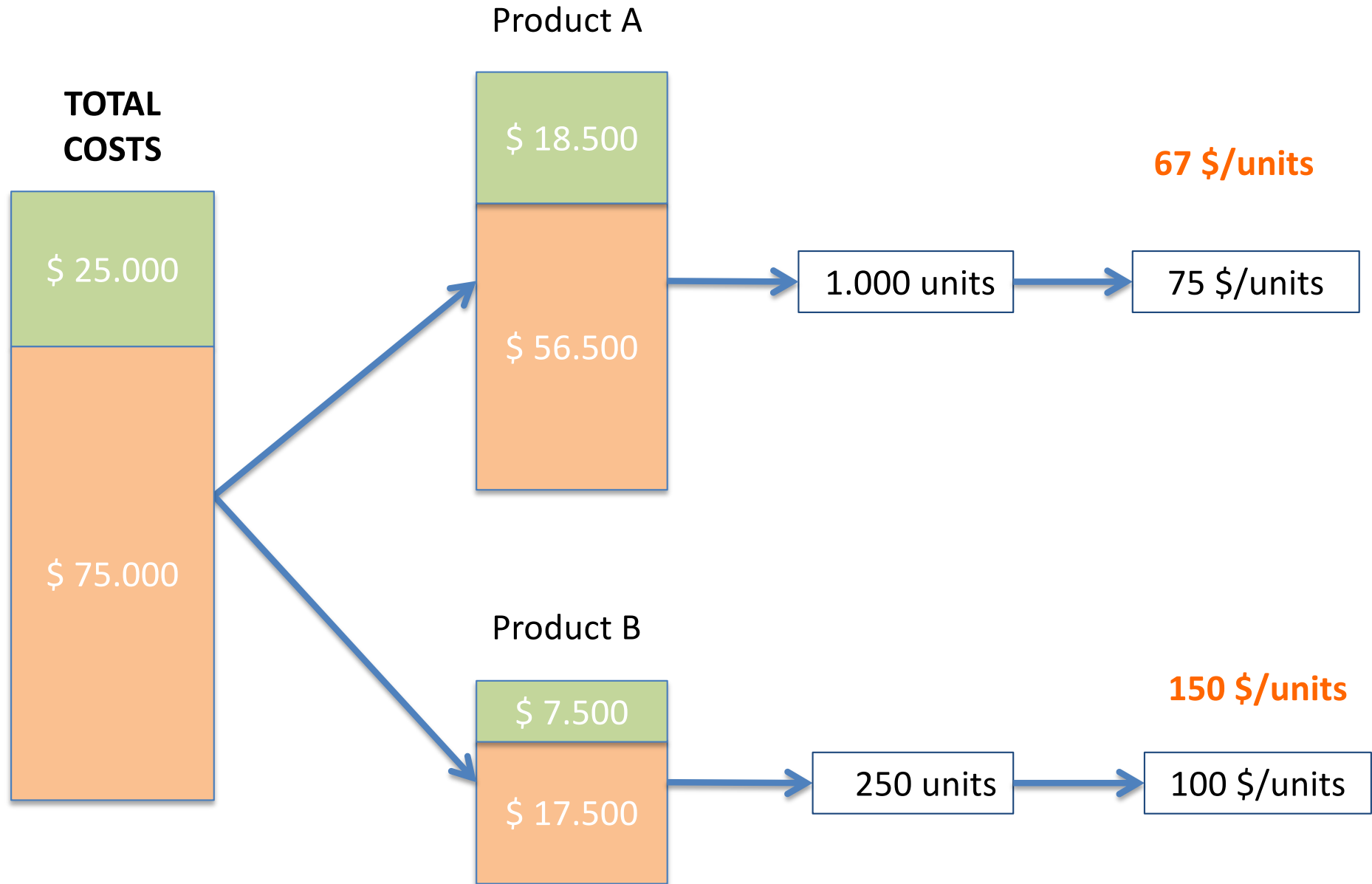
AN EXAMPLE ON COST ALLOCATION



PREVALENCE OF DIRECT COSTS

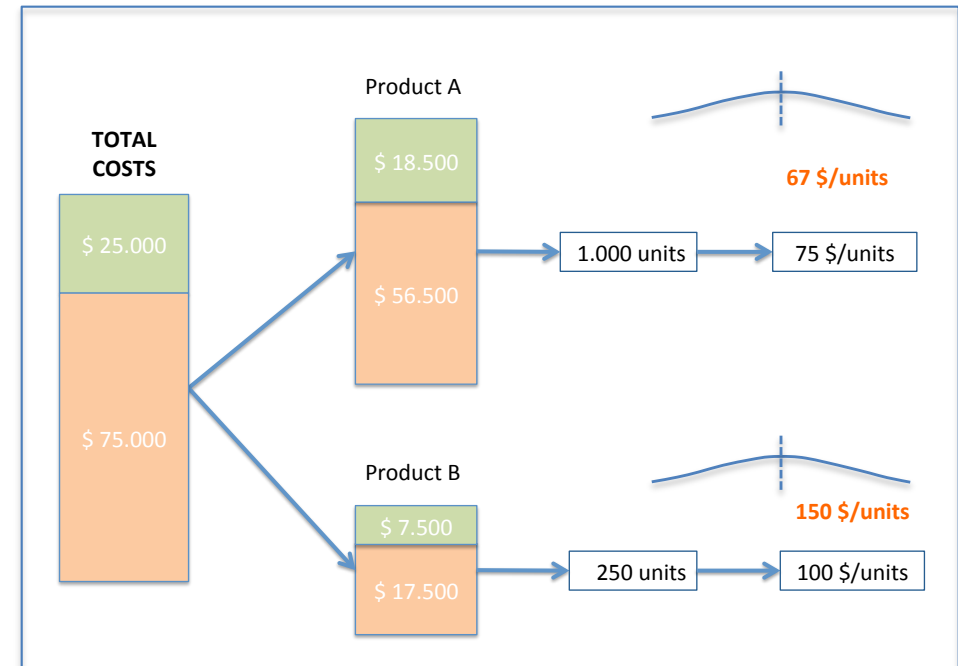
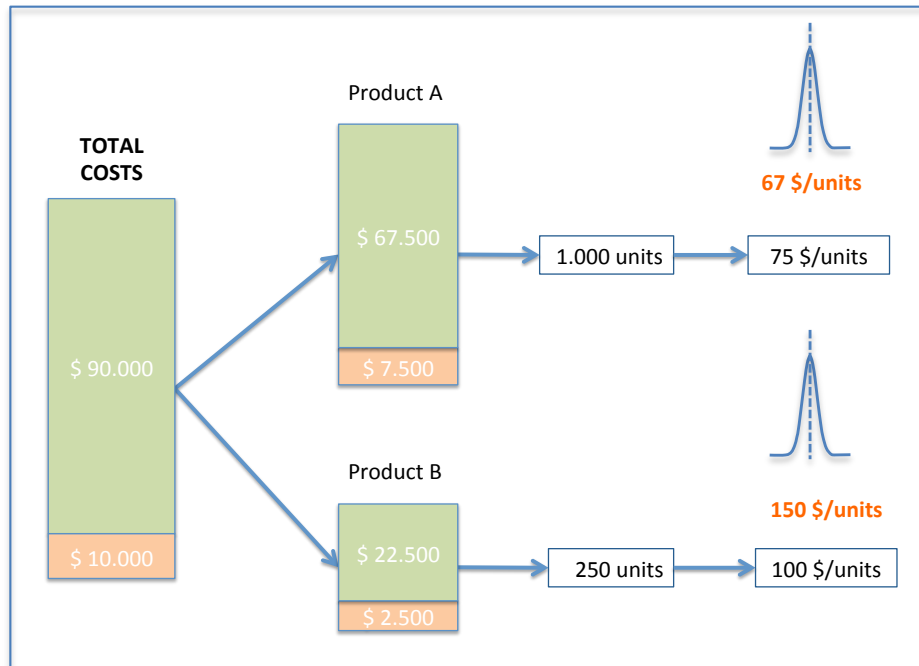


PREVALENCE OF INDIRECT COSTS

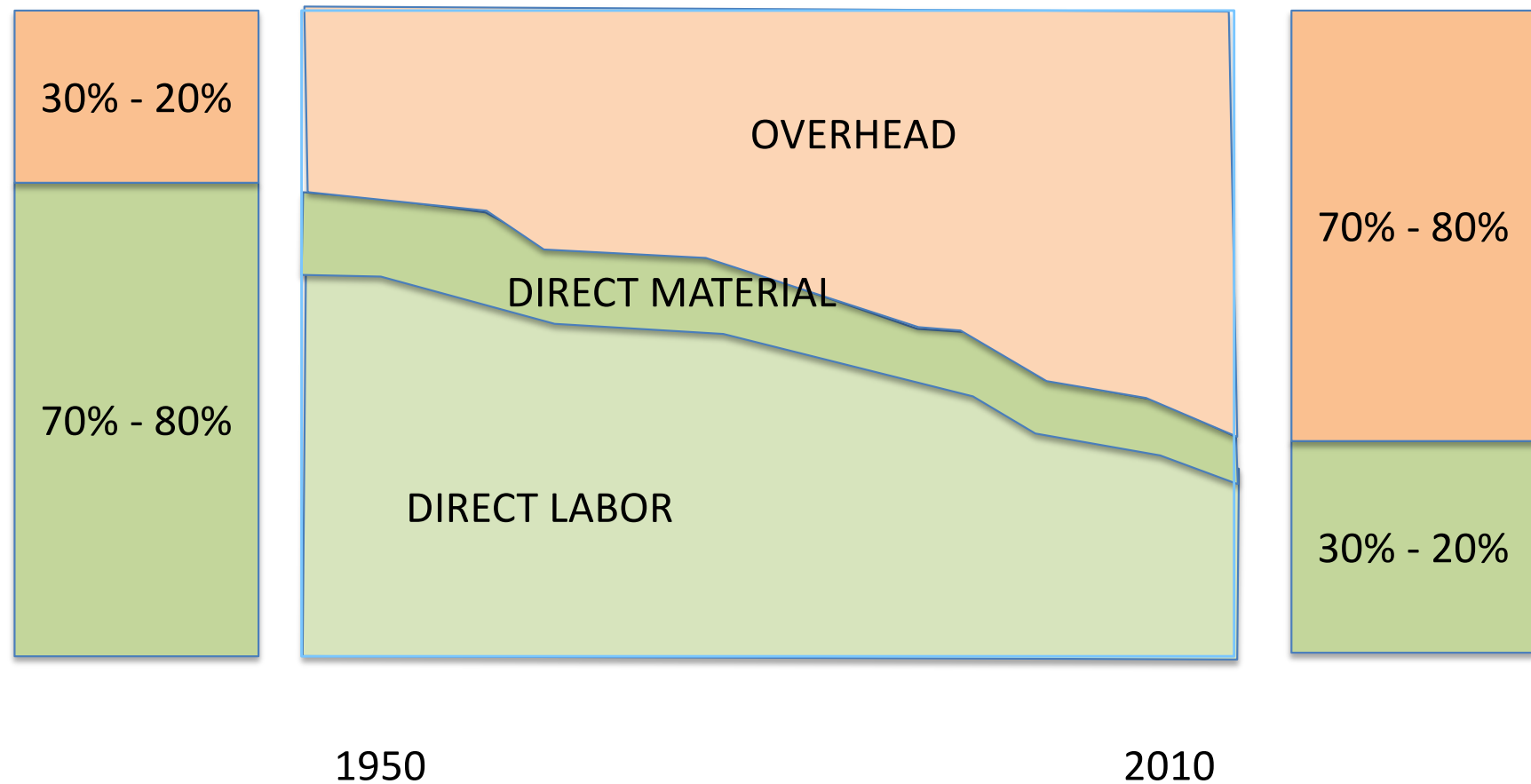


A COMPARISON BETWEEN THE TWO SITUATION

In your opinion which “cost figures” is more relevant for decision making?



INDIRECT COSTS ARE DISPLACING DIRECT COSTS



ASSIGNING COSTS TO PRODUCTS

	PRODUCT A	PRODUCT B
Unit produced & sold	10,000	10,000
Average selling price	\$ 150	\$ 50
Direct Material	\$ 10 per unit	\$ 15 per unit
Direct Labor	2 hours per unit	1 hours per unit
Direct labor cost	\$ 20 per hour	
Indirect Costs	\$ 600,000	

SOME TAKEAWAY POINTS FROM MODULE # 10

- ❑ In this module they have been examined first of all the rates of cost associated to the processes of cost tracing and cost allocation. Although apparently equal (in the sense that they can appear to one first superficial observation the same thing) in truth they have different explanation.
- ❑ While the rate of cost that originates from the process of cost tracing expresses the amount of money necessary in order to obtain one "dose" of the consumed productive factor, the rate of cost that originates from the process of cost allocation is only a relationship between the indirect cost that must be attributed and the total amount of the parameter chosen as allocation base. While the first is consistent with the way in which the price of the productive factor is normally established, the second almost certainly is not.
- ❑ This does not mean that the cost rate that originates from the process of cost tracing corresponds to the price paid for the productive factor to the supplier, since the cost considered is normally composed, that is, formed from various elementary components.

SOME TAKEAWAY POINTS FROM MODULE # 10

- ❑ In the module we also highlighted the difference between cost rate and allocation rate often used in the cost allocation process.
- ❑ The cost rate is always expressed by the ratio of two different entities. The numerator is the aggregate of indirect costs that must be allocated and, therefore, is expressed in monetary terms. The denominator is the allocation base and can be measured in both monetary and non-monetary terms. Even when it is measured in monetary terms it refers to an entity that is conceptually different to that placed at the numerator. The cost rate must, in this case, be read as expressed in euros of cost (or costs) that must be allocated per euro of the entity chosen as allocation base.
- ❑ The allocation percentage (rate) arises, on the other hand, from the ratio between two different measures (the partial one referring to the cost object towards which the costs will flow, and the total one) of the same entity: the parameter chosen as the basis for allocation. It represents, therefore, a "pure number" that is used to establish the portion of overheads that must be assigned to a specific cost object.

SOME TAKEAWAY POINTS FROM MODULE # 10

- ❑ The evolution of corporate cost structures has resulted in an increasing weight of indirect costs. This entails, as mentioned in the previous lesson, an increase in the level of ambiguity of the cost figures obtained and, therefore, a decrease in the robustness of the information used for decision making.
- ❑ This has determined a strong incentive, on the one hand, to give more weight to cost tracing processes (expanding the number of information recorded when individual cost items are incurred and improving the process of measuring resource consumption through the use of technology) and, on the other, to improve the cost allocation process through the adoption of more complex and sophisticated logics and procedures.
- ❑ With reference to this last point we will have the opportunity to examine in a future module the so-called two-stage attribution processes.