

Financial and Managerial Accounting, Eighth Edition

Answers to Stop, Review, and Apply Questions

Chapter 22 Standard Costing and Variance Analysis

- 1-1.** *Standard costs* are realistically predetermined costs that are developed from analyses of both past and projected future costs and operating conditions. They are usually expressed as a cost per unit of finished product.
- 1-2.** A *variance* is the difference between standard costs and actual results.
- 1-3.** Yes, standard costing can be used by a service organization. The main difference between a service organization and a manufacturing organization is that the service organization does not have direct materials costs. Therefore, service organizations will have only direct labor and overhead variances to analyze.
- 2-1.** Standard costing is a total unit cost concept because all components of a unit cost are stated at standard cost instead of actual cost. The Materials Inventory, Work in Process Inventory, Finished Goods Inventory, and Cost of Goods Sold accounts are all stated in terms of standard costs. All inventory balances are computed using standard unit costs.
- 2-2.** Predetermined overhead costing and standard costing share two important characteristics: (1) both produce forecasted amounts to be used in product costing, and (2) both are formulated using anticipated costs. However, unlike predetermined overhead rates, standard costing focuses on total unit cost, and the determination of standard costs is more complex than that of predetermined overhead rates. Standard costs are based on engineering estimates, forecasted demand, worker input, time and motion studies, and type and quality of direct materials. Predetermined overhead rates are based on simple projections of trends in past costs.
- 2-3.** The following six elements are used to compute a standard unit cost:
- Direct materials price standard
 - Direct materials quantity standard
 - Direct labor time standard
 - Direct labor rate standard
 - Standard variable overhead rate
 - Standard fixed overhead rate
- 3-1.** This statement means managers constantly compare the actual costs of what did happen with the costs of what was expected to happen, try to identify the cause of the difference, and seek to correct the operating problem. A standard costing system is used to compute and track the budget versus actual cost differences—or variances—for products and services. This comparison between the standard and actual costs provides much valuable information about operations and is useful in both cost planning and cost control.
- 3-2.** A *flexible budget* is a summary of anticipated costs prepared for a range of activity levels, geared to changes in the level of productive output. It is a cost control tool used in evaluating performance at the end of a period.

- 3-3.** The two parts of the flexible budget formula are the *variable costs* (the variable cost per unit multiplied by the number of units produced) and the *budgeted fixed costs*. Added together, they will yield the expected budgeted cost for any level of output.
- 4-1.** Each variance must be evaluated according to its specific circumstances. An unfavorable direct materials price variance means that the actual price of materials was greater than the standard price. Perhaps an uneconomical purchase was made or a higher grade of materials was purchased, or perhaps the standard price may need to be updated.
- 4-2.** Yes. The use of cheaper direct materials could have led to excessive spoilage or usage, thus raising the quantity of direct materials used.
- 5-1.** Direct labor variances causes and measures include the following:

Possible Causes	Performance Measures for Tracking Causes
<i>Labor Rate Variance</i>	
Worker hired at a pay rate higher or lower than expected	Testing of skills at time of hiring, monitoring of wage rate; authorization policy; tracking of personnel training time
Worker performing the duties of a higher- or lower-paid position	Study of number of times wrong workers are used per supervisor; analysis of hourly or daily wage rate, variance reports
Sudden changes in overall wage rates	Establishment of new standard wage rates if changes are permanent
Labor strike that causes temporary hiring of unskilled help	Monitoring of temporary help used to cover each job
Large layoffs resulting in unusual usage of the workers who remain	Review of any shifting of skilled workers to lower-skilled jobs, study of crosstraining activities
<i>Labor Efficiency Variance</i>	
Employee training	Review of number of hours of training
Machine breakdowns	Review of percentage of unscheduled downtime reports, monitoring of machine maintenance activities
Inferior direct materials or higher-quality materials	Analysis of quality of materials purchased versus desired quality; inquiry into quality of goods delivered

- 5-2.** Direct labor rate and efficiency variances can be either favorable or unfavorable and are not causal. Direct labor rate variances pertain to labor wage rates while the direct labor efficiency variances pertain to labor productivity.
- 6-1.** The efficiency variances for direct labor and variable overhead are generally based on the same quantity—that is, direct labor hours—and thus are caused by the same factors.

- 6-2.** The *fixed overhead budget variance* is the difference between actual fixed overhead costs incurred and budgeted fixed overhead. The *fixed overhead volume variance* is the difference between budgeted fixed overhead and the fixed overhead applied to production using the standard fixed overhead rate. The fixed overhead budget variance measures the difference between the costs actually incurred and the costs that should have been incurred. The fixed overhead volume variance measures the use of existing facilities and capacity. A fixed overhead volume variance will exist whenever either more or less than normal capacity is used.
- 6-3.** If standard hours allowed are more than normal hours, the period's fixed overhead volume variance will be favorable. Fixed overhead costs are applied on the basis of standard hours allowed. Overhead would be applied on the basis of the higher number of standard hours allowed, but the fixed overhead rate was computed using the lower number of normal hours. Thus, more fixed costs than were budgeted would be applied to products. Because the products can absorb no more than actual costs incurred, this condition would tend to lower unit cost. When expected capacity usage is exceeded, the result is a favorable fixed overhead volume variance. Fixed costs per unit decline because the fixed costs are spread over more units, which increases profitability.
- 7-1.** Because managers have different responsibilities, evaluations of their performance should be tailored to those responsibilities.
- 7-2.** The key to preparing a performance report based on standard costs and related variances is to follow company policies by (1) identifying those responsible for each variance, (2) determining the causes for each variance, and (3) developing a reporting format suited to the task. Performance reports should be tailored to a manager's responsibilities.