## Monitoring Cost

## by Sophia

## WHAT'S COVERED

In this lesson, you'll learn how to monitor the cost of a project. Specifically, you will focus on:

## 1. Monitoring Budget

Like schedules, the project manager is responsible for monitoring the budget on a project and tracking the actual cost spent versus the original cost estimates.

A project manager tracks all elements in a project that result in costs to the project. This includes effort needed to complete tasks, materials used to create deliverables, and services that are used as part of the project budget, such as subscriptions to development software.

When a task has been completed, the project manager compares all of these costs to complete the task to the original estimate and records if the task was over or under budget. If additional budget is required, then the project manager must seek approval from the project sponsor and key stakeholders.

Actual
Effort
Materials
Services

## Estimated

## Effort

Materials
Services


- TERM TO KNOW


## Budget Monitoring

The ongoing tracking of the estimated budget compared to actuals.

## 2. Monitoring Tasks

How does a project manager estimate cost on a task that is still in progress? To do this, two values must be tracked:

1. Effort. Team members must continually report their effort in hours on tasks. This can occur on a daily or weekly basis.
2. Percent Complete: Team members must report the percent they have completed a task. This is often done daily, but for larger projects with longer tasks, sometimes weekly will work too.

The project manager then takes these two values and uses them to calculate the amount spent on a task so far.

## IN CONTEXT

Assume that during the planning phase, the quality assurance on a mobile email application was estimated to take 40 hours to complete. The quality assurance task has now begun, and we want to know the cost spent.

At the end of the week, the team reports that they have spent 20 hours on the task and that it is $60 \%$ complete.

|  | Effort | Percent Complete |
| :--- | :--- | :--- |
| Estimate | 40 hours | $100 \%$ complete |
| Actual | 20 hours | $60 \%$ complete |

To find how much effort should have been spent to reach $60 \%$ complete, we multiply 40 hours times $60 \%$, or 0.60 .

## Estimate: 40 hours $\times 0.60=24$ hours

The team should be at $60 \%$ after 24 hours. However, the team has only spent 20 hours. So we are actually four hours ahead of schedule!

If the cost per hour of a team member is $\$ 30$ per hour, and we are four hours ahead of schedule, then $\$ 30$ times four hours is equal to $\$ 120$ under budget for the task. Pretty good!

## 3. Reporting Time, Effort, and Percent Complete

Most project management software tools will perform this calculation so you won't have to do it manually. However, each organization will use different methods to record the effort on a project. Here's an example of a template for team members to use.

## Daily Time Sheet

| Project | Tasks | Estimated Time | Estimated Effort | Actual Effort | Percent Complete |
| :---: | :---: | :--- | :--- | :--- | :--- |
| Mobile Email | Test Email Operations | 2 weeks | 40 hours | 20 hours | $60 \%$ |

Note that it shows the project tasks assigned to the team member and has a space for them to record their time or effort on the task and the percent the task is complete. It will vary by organization how often team members provide these reports and how often the project manager will report on the budget. But the general process is the same.

SUMMARY

In this lesson, you learned how a project manager monitors the budget, how to track the costs
associated with the task, and how team members report on the effort, time, and percent complete for each task.

Source: This work adapted from Sophia Author Jeff Carroll.

## TERMS TO KNOW

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