

Converting Data to Monetary Value

By Patti Phillips

For some evaluators, the act of converting data to monetary value inspires fear, misconception, and bewilderment. But remember, all data can be converted to monetary value. You just need to know what techniques are available to you.

Use Standard Values

Many organizations have standard values to measure turnover, productivity, and quality. If a measure has a monetary value developed and accepted by the organization, there's no reason to reinvent it. Standard values are generally grouped into three categories: output to contribution, cost of quality, and employees' time.

When considering output to contribution, look at the value of an additional output. For example, let's say you work at a passport office and your entire role is to process passports. If you can process one more passport, given the resources and time you have available, the value of that one passport is equivalent to the cost of processing one passport. This one additional output--the passport--times the cost of processing the passport is the monetary contribution of increasing the output to the organization.

Now consider the cost of quality, another standard value in most organizations. Waste, reject rates, and defects often have assigned monetary values. Other measures, such as re-work, can be converted to monetary value by looking at the cost of the work. For example, when employees make mistakes and errors in reporting, the monetary value of those mistakes is the cost incurred in re-working the report.

Employees' time is probably the simplest and most basic approach to data conversion. If time is saved due to a program, the first question to ask is, Whose time is it? Then to convert time to monetary value, take time saved multiplied by labor cost and add the percentage of additional value for employee benefits. (This benefits factor can easily be obtained from Human Resources.) A word of caution: When considering employee time as a gain, remember that the time savings is only realized when the amount of time saved is actually used for productive work.

Turn to Historical Costs

When no standard values exist, go to historical costs. The question to ask is, What has a similar incident cost in the past? An example of using historical costs is the case of a sexual harassment prevention program that was implemented in a large health care organization. The measure of the investigation was formal, internal complaints. The value of the complaint was determined by looking at its historical cost, including litigation, legal fees and expenses, settlement losses, as well as investigation and defense of the organization.

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Look to Internal or External Experts

When standard values are unavailable and developing the monetary values through historical costs is not feasible, the next option is to go to internal or external experts. It's important for these experts to fully understand your intent and the business measure you are targeting.

Leverage External Databases

External databases can also provide a wealth of information, including the monetary value of an array of measures. An example of how to use external databases to convert a measure to monetary value is in the case of turnover.

Link with Other Measures

Another technique is to link the value of a measure with others that have already been converted to monetary values. This involves identifying existing relationships to show a correlation between the measure under investigation and another measure to which a standard value has been applied (as in the link between job satisfaction and turnover). Remember, the further you get from the actual monetary value, the lower the credibility of the information.

Use Estimations

Estimates of monetary value can come from participants, supervisors, managers, and even the WLP staff, and can be easily gathered through focus groups, interviews, or questionnaires. The key is to first clearly define the measure so that the people providing estimates have a clear understanding of what you're looking for, and then to determine the most credible data sources.

Consider the case of absenteeism. The table, below, shows supervisors' estimates of the per-day cost of one person not showing up for work, the confidence level in that estimate, and the adjusted per-day cost for one absence at \$1,061.

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Supervisor	Est. Per Day Cost	Confidence	Adjusted Per Day Cost
1	\$1,000	70%	\$700
2	\$1,500	65%	\$975
3	\$2,300	50%	\$1,150
4	\$2,000	60%	\$1,200
5	\$1,600	80%	<u>\$1,280</u>
			\$5,035
Average adjusted per day cost of one absence			\$1,061

Since estimates are subjective, we reduce the error by adjusting them with confidence levels. For example, if Supervisor One tells you it costs \$1,000 per day for an unexpected absence, then present them with the other supervisors' estimates and ask how confident they are that their estimate is indeed correct. After thinking it over, they may say, "Well, I know what happens when people don't show up for work and I can be pretty sure what it's costing us from a time perspective. Given that it is an estimate and I'm not totally sure, I'll say that I am 70 percent confident in my number." Repeat the process with each Supervisor.

This additional step in the estimation process reduces variability and provides a more conservative value. You have reduced the amount of error and improved the reliability of the value of one absence.

Data Conversion Four-Part Test

For those times when you cannot decide whether you can credibly convert a measure to monetary value, complete this four-part test:

- If the measure you want to convert has a standard value, then convert it to monetary value.
- If there is not a standard value, is there a method other than standard values to get there? If there is not a method, then report the measure as intangible.
- If there is a method to convert the measure, can you do so with minimum resources? If no, then report it as intangible.
- If you can convert the measure to monetary value using the selected method with minimum resources, can you convince your executive in two minutes or less that the value is credible? If no, then report the measure as intangible. If yes, then convert it.

Five Steps to Data Conversion

Once you've decided to convert a measure to monetary value and have chosen the technique that you're going to use, there are five steps to complete the data conversion process:

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- Focus on the unit of measure.
- Determine the value of each unit.
- Calculate the change in the performance of the measure.
- Determine the annual improvement in the measure.
- Calculate the total monetary value of the improvement.

Finally, remember intangible benefits are those that you choose not to convert to monetary value. Typical intangible benefits are job satisfaction, organizational commitment, teamwork, and customer satisfaction.

Considerations

While all measures can be converted to money, several factors should be considered. One factor is the cost to convert the measure. You don't want to spend more on data conversion than the evaluation itself. Importance of the measure is another consideration. Some measures, such as customer satisfaction and employee satisfaction, stand alone quite well. In that case, you might think twice before attempting to convert the measure to money. Also consider credibility. While most business decisions are made on somewhat subjective data, the source of the data, the perceived bias behind the data, and the motive in presenting the results are all concerns when data is potentially questionable.

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