

BENCHMARKING BASICS

How to Use Financial Benchmarks

Matthew F. Baretich

Financial performance is one of the most important areas for benchmarking. If you know where you stand relative to similar clinical engineering (CE) programs, you can identify realistic opportunities for improvement and initiate performance improvement activities that are likely to succeed. The key is to use consistent definitions for financial performance and to carefully select your comparison group. AAMI's Benchmarking Solution gives you the tools to do just that.

However, the subject matter experts for AAMI's Benchmarking Solution (Ted Cohen, Frank Painter, Bob Stiefel, and me) have found that getting internal data can be a challenge. A significant number of ABS subscribers are unable to get access to some types of data within their own organizations. In particular, gaining access to comprehensive internal financial data can be difficult for some CE programs.

For example, although salaries for CE personnel are commonly included in the CE budget, benefits often are not. If you want to know the true cost of providing service with your in-house CE personnel (e.g., to decide whether a service contract might be a better alternative), you need to factor in personnel benefits. Those numbers might be in the human resources

(HR) or finance budgets, rather than in the CE budget. Unfortunately, a significant number of ABS subscribers have difficulty accessing this information and entering it into ABS.

Getting the Numbers

What's the answer to this problem? It certainly varies from one organization to another. Explaining why you need the data might help you get access to it. Anything that enables you to make sound financial decisions about CE services for the organization is something that the organization should be interested in providing. Another approach, as an alternative to getting detailed information for every payroll period, is to discuss the issue with HR and get a percentage number that you can apply to

salaries and get you close enough to accurate personnel costs.

Another category of financial data that can be hard to obtain is the value of the equipment managed by the CE program. Knowing that value is essential for calculating the "cost of service ratio" (COSR), which is the ratio of annual maintenance costs to equipment value.

COSR is one of the best measures of CE program financial performance, with strong statistical support in the benchmarking

About the Author



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literature (see, for example, Ted Cohen's article in the July/August 2010 issue of *Biomedical Instrumentation & Technology*). ABS uses purchase cost as the measure of equipment value. That approach, of course, neglects depreciation due to age and condition. However, compared to other measures of equipment value, it's probably the easiest to collect. Even so, many ABS subscribers don't have access to this information.



Getting a handle on all your costs, such as benefits, is critical if you are to use financial benchmarks effectively.

The way to deal with that for the future, of course, is to start recording purchase cost in your CMMS whenever a new piece of equipment arrives. For past data, some sleuthing in the Finance Department can be effective, especially if you focus your efforts on high-value equipment. For other equipment, try to develop reasonable estimates of purchase costs. There are also vendors that will do valuation inventories. Knowing your COSR is important

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enough to justify significant effort to determine the value of the equipment you manage.

There are some other categories of financial data that present challenges to ABS subscribers (e.g., the cost of service contracts that are not managed by the CE program). After you

determine which of these are problematic in your organization, make a plan to get access. Maybe your first performance improvement initiative is simply to get access to the data you need to support your future performance improvement initiatives.

Key Financial Benchmarks

Most of the important financial benchmarks fall into either personnel costs or maintenance costs. Personnel costs include salaries, benefits, training, and all costs involved in providing qualified personnel for your CE program. Many of these costs are easy to determine (with the possible exception of factors such as benefits or training that are carried in the budgets of other departments). The easiest way to go wrong (as shown in the CE literature and in my own consulting experience) is not to include all the costs that ought to be included—leaving out training costs, for instance.

If you underestimate the cost of providing in-house CE personnel you will, for example (all else being equal), tend to take on equipment maintenance responsibilities that might be more cost-effectively offloaded to a service contract. One of the benefits of using a benchmarking program such as ABS is that you (and the CE programs you compare yourself to) will use the same comprehensive list of factors. But you can develop your own list of costs by reviewing the CE and management literature.

Maintenance costs are similar in that much of the information you need is reasonably accessible, often within your CMMS and your budget reports. Again, you can go wrong by not including all relevant costs. You can also run into challenges getting data from other departments. And, again, based on my experience as a consultant, data entry into the CMMS is sometimes not as complete as we would like it

to be when we need to extract information. Implementing a comprehensive benchmarking process will give you an incentive to manage the CMMS with care (which is consultant-ese for “garbage in, garbage out”).

The personnel and maintenance data don't,

by themselves, provide a basis for direct comparison with other CE programs. Personnel costs depend on, among other things, the number of employees (no big surprise). Maintenance costs depend on, among other things, the number of pieces of equipment. So denominators are important: per FTE, per device, per dollar value of equipment, per bed, per case mix adjusted (CMI) patient days, or other measure of size or workload. Picking the right denominator will go a long way toward having performance data that you can compare to other CE programs.

Of course, using a relevant denominator is not enough by itself. COSR (numerator = cost of maintenance, denominator = equipment value) varies with the type of equipment (higher for high-end imaging equipment, lower for general biomedical equipment). You also need to select a comparison group that is as much like your CE program as possible in terms of the performance measure you're interested in. For example, when evaluating your COSR you should focus on CE programs that have a similar mix of equipment (as well

as other potentially relevant demographic characteristics). ABS lets you select any combination of demographic factors such as hospital size, geographic location, CE management (in-house, ISO, manufacturer), for-profit versus not-for-profit, hospital system or independent, and so on. ABS also lets you look at the extent to which hospitals in your comparison group follow a wide variety of "best practices" in CE management.

Conclusion

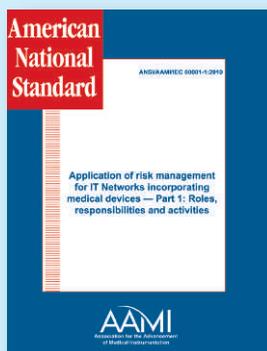
Get access to key data and enter it into your benchmarking database. Select financial and other performances measures that are relevant to your CE program, especially COSR. Carefully define your peer-comparison group for similarity in characteristics that may affect the performance measures of interest. Start looking for genuine, achievable opportunities for improvement. ■

Examples of ABS Calculated Financial Measures

- Total acquisition cost of devices managed by CE
- Number of devices managed by CE (total and by major category)
- Total in-house maintenance hours
- Total in-house maintenance costs
- Total external maintenance costs
- Average maintenance cost per device
- Total hourly cost of in-house maintenance
- Total maintenance cost to acquisition cost ratio (COSR)

For more information about AAMI's Benchmarking Solution, visit www.aami.org/abs.

AAMI Guidance for Healthcare Providers Managing Medical IT-Networks

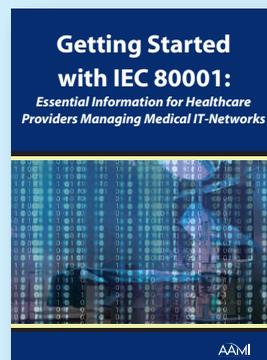


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