A MEASUREMENT-BASED PERFORMANCE MANAGEMENT MODEL
Herbert M. Baum, Ph.D., Senior Director, Federal Performance Measurement
We are in an instant information age. Between computers, smart phones, and tablets we can access information 24/7/365 and likewise we can be accessed by many of these same devices. As a result there is an expectation that organizations can readily access analytics and metrics related to performance measurement and the same information will be available to others. For example, the Federal government, under the Government Performance and Result Act of 1993, boldly mandated that federal agencies annually prepare a review of performance relative to targets set in alignment with the agency’s strategic plan. Seventeen years later, the GPRA Modernization Act of 2010, changed the mandate to performance data being updated quarterly and that the information be easily accessible by the public. A recent report (Abramson, Mark, et. al. Seven Management Imperatives. IBM Center for the Business of Government, Washington DC, 2011) noted “Technology has made it easier to collect, aggregate, and display data, making it available to a wide range of users.” The authors then cite the use of real-time performance data as one of the seven management imperatives. Real-time performance data emphasizes the need for the currency of the information provided. So both within and outside of government there is a dual push to 1) having current information for managing, and 2) that the information is available outside of the “inner” circle.

To accommodate this push, organizations can no longer remain on the sideline and question whether they should collect performance data to improve management; rather organization need to move onto the playing field and address the following questions:

✦ Can we collect the right information for decision-making?
✦ When we have the right information will our managers know how to use it?

In the field of statistics there is a concept known as ‘construct validity’. It is defined as “… the degree to which inferences can legitimately be made from the operationalizations in your study to the theoretical constructs on which those operationalizations were based” (William Trochim, Research Methods Knowledge Database, http://www.socialresearchmethods.net/kb/constval.php). Though there is no similar term in performance measurement the concept is critical. If an improper metric (operationalization) is used, it will be a poor indicator of program performance. To avoid using the improper metric it is important that the metrics be developed in a systematic fashion consistent with the goals and objectives of the program. This model provides a framework for developing meaningful metrics that are consistent with other planning documents of the organization and can be incorporated into management decisions.

The terms “performance measurement” and “performance management” are often used in a manner that appears to be interchangeable. For the purposes of this paper it will be helpful to differentiate them.


The key for performance measurement is that it occurs on a regular basis. Performance management uses that information to make changes to the organization so that it functions at a higher level. This becomes a cycle, because the changes recommended based on performance management then need to be monitored to determine that they are having the desired impact on performance. Hence the model (Figure 1) is termed “measurement-based performance management” because it incorporates what the organization does with both generating the proper performance metrics and using that for management.
The model consists of six stages; the first four relate to performance measurement and the last two relate to performance management. The stages surround an inner circle that focuses on the environments in which this process is being conducted. For example, when the Program Assessment Rating Tool (PART) was instituted by the Bush administration, many agencies reluctantly complied. When done in that environment the result is that poor metrics are developed (i.e., the agency uses what it already has) and the agency spends precious resources gathering information that is not very useful. The internal and external environments influence how managers approach the process and what they hope to achieve. Under ideal circumstances the manager understands the value of this information and how it will result in their group accomplishing their work more efficiently. That type of attitude results in better metrics being developed, a greater willingness from the employees to gather and use the data, and better decisions for improving performance.

Figure 1: Measurement-based Performance Management Model

The remainder of the paper presents a description of each of the stages in the model. Because the model is circular, one can enter at any point. Thus if an agency or organization has metrics, the model can be used to merely describe how to use the results for management.

Stage 1: Understand the Context
Organizations spend a great deal of time and money to create strategic plans and then undertake activities that do not always support those efforts. Stage 1 is to review existing documents like the strategic plan to determine where the organization is heading and how it proposes to get there, i.e., what is its map. The map that is often used is a logic model. The logic model indicates the impact the organization hopes to achieve and the inputs, activities, outputs and outcomes (short-term, intermediate and long-term) that result in the impact being obtained. Ideally it is the impact that should be the focus of performance measurement, but that is often not feasible. Either it is difficult to measure the impact or the data are not readily available for that. The outcomes then become the focus for performance measurement, because if those are being achieved, then the impact will follow.

This approach of using the strategic plan and/or logic model as the guide posts for developing performance metrics will result in the metrics being aligned (Stage 2).

Stage 2: Develop Metrics and Align
The logic model will identify the outcomes of interest. The staff of the organization should be able to assist in noting what data they are currently gathering, what data may be gathered by other departments of the organization that can be relevant, and whether it is feasible to gather additional data. It is too easy at this stage to fall into the trap of using what is readily available. Often those data do not directly relate to the impact or the outcomes of interest. If that is what the organization uses, then it will move in a direction contrary to what is noted in the strategic plan.

Metrics can be a double edged sword. On the one hand they serve as a tool to measure progress. On the other hand what is measured is what gets done. Therefore, if you are measuring the wrong thing that is what will get done; and the right thing will not be accomplished.
Stage 3: Implement  
Once the metrics (definition, source, and how frequently they will be gathered) have been determined, the next step is to implement the data collection. If grantees or other organizations are involved in the data collection, it is useful to let them know why this is being done and provide them guidance on how to gather the information and what definitions to use.

Stage 4: Analyze  
Contrary to common opinion, data speak; and for statisticians this is accomplished by a thorough data analysis. Before analyzing the results, program personnel need to review the data to determine whether they are reliable. For example, did all the reporting entities use the same definitions? This may seem trivial but it is not. If the outcome of interest is increased exercise, determined by the percentage of program participants who exercised for thirty or more minutes three times per week, the following questions may arise:

1. Do the thirty minutes have to be consecutive?
2. Is walking to school exercise, or does exercise have to be something else? If the latter, how is that defined?

Another aspect of reliability is “Are the data accurately reported?” One may want to periodically examine the trends in reporting at the level of the unit reporting (i.e., grantee, school district, etc.) to determine whether the 63% reported this period is a typo and should really be 36%, the same as reported last period. Large changes in outcomes should always be suspect.

Stage 5: Make Changes  
Changes can be of two types. One, the data being gathered are not meeting the needs and different metrics should be developed. The other change is that the data indicate a program is not performing as envisioned and there need to be changes to the program to enhance its performance. The latter is performance management, making changes based on performance information to enhance the impact of the program. If changes are made to the program, it then becomes necessary to go through stages 1-3 to verify that the changes being made are consistent with the mission of the program, that you have the proper metrics, and have defined the metrics so that data are gathered consistently.

Stage 6: Internalize  
If Stage 6 is done correctly, it will impact the inner circle as well, the internal environment. “Internalize” means that the organization uses the information gathered to both monitor performance and to improve performance. The various components of the organization see the value of this and support its use on a regular basis. As new programs are developed a logic model should be developed for the program and a plan should immediately be put into place to gather performance metrics.

What do organizations need to do? If your organization is regularly gathering analytics and generating performance metrics, jump to Stage 5. Examine whether the metrics derived from the analytics are meaningful or merely being gathered because they are convenient. Do the metrics help the organization move forward to meeting its strategic objectives? If your organization is not gathering analytics and generating performance metrics, then the model presented here should help you get started. Regardless of where your organization is in the process of performance measurement and management, DRC has an experienced staff of evaluators and organizational psychologists who can work with you to improve existing systems or work with you on cost effective methods for beginning.

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