MEASURING FOR RESULTS

Key Questions and Tools for Analyzing and Understanding your Organization and its Performance

12 October 2015

HOMELAND SECURITY® STUDIES & ANALYSIS INSTITUTE
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HSSAI provides the U.S. Government with the necessary expertise to conduct: crosscutting mission analysis, strategic studies and assessments, development of models that baseline current capabilities, development of simulations and technical evaluations to evaluate mission trade-offs, creation and evolution of high-level operational and system concepts, development of top-level system and operational requirements and performance metrics, operational analysis across the homeland security enterprise, and analytic support for operational testing evaluation in tandem with the government's acquisition process. HSSAI also works with and supports other Federal, state, local, tribal, public and private sector organizations that make up the homeland security enterprise.

HSSAI's research is undertaken by mutual consent with the DHS and is organized as a set of discrete tasks. This report presents the results of research and analysis conducted under

Task 14-02.02, Performance Management Methodology Development

The purpose of this task is to build on foundational work conducted for the Performance Measurement Methodology Development core task and related HSSAI studies on performance measurement. In a recent core task, HSSAI successfully produced a high-level document entitled Measuring for Results: Key Concepts in Understanding the Performance of DHS Programs and Activities, to help DHS entities understand the problem and to pave the way for detailed follow-on efforts. This particular effort was developed as part of the study that produced Measuring for Results: Application of Key Concepts to Resilience Measurement. It is intended to provide tools to program managers to assist in their understanding of the process by which they can review particularly challenging problems in their programs. This method will help in measuring the effectiveness of investments and associated program activities and provides strategies to conceptualize such measurement.

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Contents

Introduction

Purpose

The purpose of this document is to offer an approach for conducting organizational management, which is deeply connected to organizational analysis, performance measurement, and performance management. It discusses the essential elements that will help you analyze the key factors that define your organization, program, or activity. It also provides guidance for conducting performance measurement activities with the ultimate goal of informing management activities that are important to your organization.

This publication is part of a larger series of documents on organizational management and performance management, providing detailed guidance on how to conceptualize your organization using the program logic model introduced in the first volume, *Measuring for Results: Key Concepts for Understanding the Performance of DHS Programs and Activities*.[1] This document takes a deeper systematic dive into those concepts.[2]

This document is not meant to be a set of instructions that prescribes the only way to analyze your organization or conduct performance measurement and management. Rather, it is an attempt to offer a discussion on the value of conducting such work. As such, it provides a framework that can aid you in telling the story of your organization—its processes, its value, and its potential for improvement.

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[1] Erin Goodykoontz et al., *Measuring for Results: Key Concepts for Understanding the Performance of DHS Programs and Activities*, (Falls Church, VA: Homeland Security Studies and Analysis Institute, October 2014).

[2] Although this documents builds on itself as it goes along, it can serve as a reference guide for each of the three topics. Therefore, steps that appear earlier in the document occasionally appear as guidance later in the document as well, so that each section can stand alone.

Throughout this document you will see the following graphic:

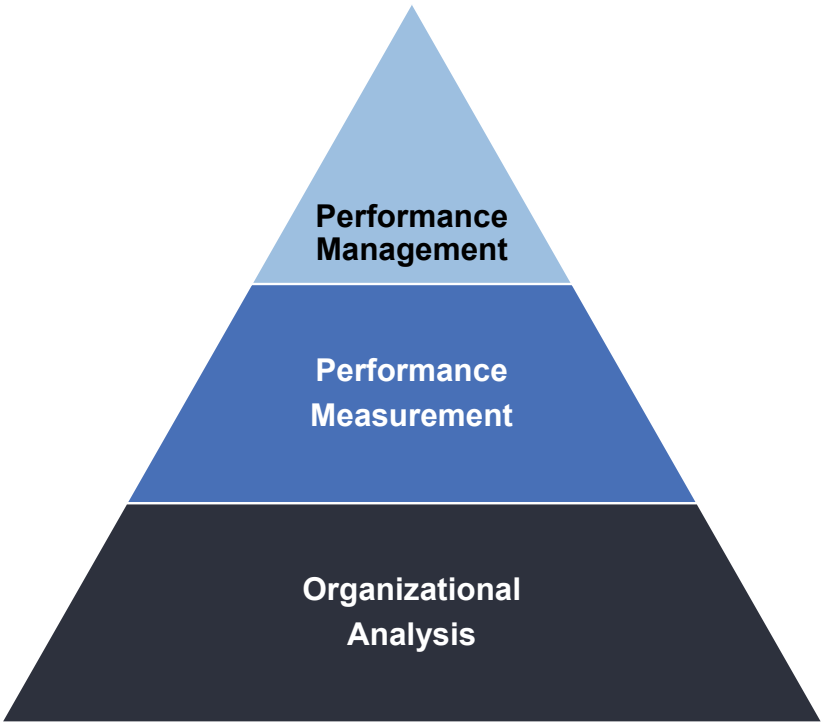

Figure 1: Methods for assessing organization and performance

We use the terms *organizational analysis*, *performance measurement,* and *performance management* in this document. The triangle above represents the relationship between these concepts. When we use the term *organizational analysis,* we mean an assessment or evaluation of the fundamental elements that enable your organization to accomplish its goals. *Performance measurement* is the quantitative and qualitative collection of information about these crucial elements. *Performance management* is the use of that information to make decisions about planning, programming, prioritizing, process improvement, or other things.

Document Overview

This document is divided into three sections: Organizational Analysis, Performance Measurement, and Performance Management. Each section contains key questions and discussions that provide elaboration and guidance. These questions and discussion are organized in the following manner:

- What are we talking about?
- Why is it important?
- How do you do it?
- Key questions and helpful hints
- Example

ORGANIZATIONAL ANALYSIS

The organizational analysis forms the basis for performance measurement and performance management activities. It is an assessment of an organization's key elements: goals, resources, activities, outputs, and outcomes.

These are the main components of this section:

I. What are the results you are looking for?
   a. What is your desired outcome?
   b. Can you define it?
   c. Can it be broken down into basic elements?

II. Ask yourself these essential questions:
   a. What is your organization's purpose?
   b. What are your activities for achieving the purpose?
   c. What resources are available to you?
   d. What do you produce?
   e. What are the results of your organization's efforts?
   f. What external factors affect your organization?

III. Analyze your organization:
   a. Program Logic Model
   b. Strategy Mapping

PERFORMANCE MEASUREMENT

After organizational analysis, performance measurement can proceed. Performance measurement is the quantitative and qualitative collection of information about the key elements that were identified as a result of the organizational analysis.

These are the main components of this section:

IV. Identify the key indicators of performance for your organization
    a. Are all the necessary stakeholders and process owners involved?
    b. How do you define acceptable/desired levels of performance?
    c. Can you identify key indicators of acceptable performance?
    d. Can you collect information on the indicators?

V. Collect data on your organization's performance
    a. Create a data collection plan based on the key indicators.
    b. Implement your data collection plan.

VI. Use the collected data to determine if your organization's performance is acceptable
    a. Analyze the data to determine levels of performance.
    b. Does your organization meet the acceptable level of performance that has been previously defined?

PERFORMANCE MANAGEMENT

After the organization's performance has been measured, performance management can occur. Performance management is the use of performance data to make decisions about planning, programming, prioritizing, process improvement, or other activities.

These are the main components of this section:

VII. Manage organizational performance
    a. Identify the purpose of your performance management efforts.
    b. Interpret performance measurement results.
    c. Devise a plan and take action (if necessary).

Organizational Analysis

The organizational analysis forms the basis for performance measurement and performance management. It is an assessment of the key elements of your organization. It illustrates your goals, resources, activities, outputs, and outcomes.

I. What are the results you are looking for?

a. What is your desired outcome?
b. Can you define it?
c. Can it be broken down into basic elements?

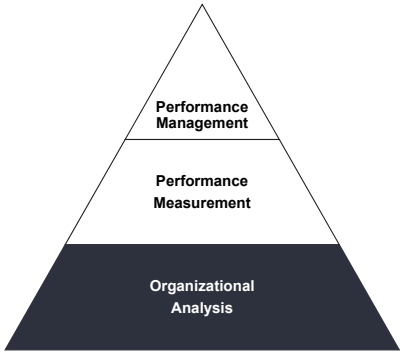

Figure 2: Focus on organizational analysis

WHAT ARE WE TALKING ABOUT?

We are talking about the desired outcome or impact of your organization's activities. They may be apparent in the near term, or they may not be evident until some point in the future. Whatever the case, you must be able to clearly identify and define what you are seeking to accomplish. It often helps to decompose your desired outcome into the simplest elements so that you can offer specific proof of your organization's value.

WHY IS IT IMPORTANT?

If you cannot clearly articulate and define your desired outcome, then it is impossible to determine the purpose of your organization. Furthermore, without this knowledge you cannot defend the resources that your organization uses or the activities it is engaged in. This lack of information also makes it incredibly difficult to explain how your organization contributes

to any higher-level missions, goals or objectives that connect to your organization.

HOW DO YOU DO IT?

How do you determine your desired outcome? Or, in other words, how do you determine the purpose of your organization? In some cases it is defined for you. In other cases you may be forced to research applicable guidance and devise your own purpose. Below, we present a few approaches for answering this question. In the next section, we will illustrate how this step is vital in determining everything else you do.

KEY QUESTIONS AND HELPFUL HINTS

It helps to think in terms of missions, goals, and objectives.

- Consider how your purpose aligns with long-term and/or high-level missions, goals, and objectives.

Where to go to identify your purpose—for government organizations

- planning documents
- congressional budget justifications
- organizational strategic documents
- external authorities and guidance: legislation, mandates, orders, etc.
- stakeholders
- leadership and strategic priorities
- past performance data
- Government Accountability Office (GAO), Inspector General (IG), and similar reports

Where to go to identify your purpose—for private entities or businesses

- business plan
- charter
- constitution
- board of directors

Think about these broad questions:

- What is your organization's mission?
- What do you produce?
- What is your impact?

PURPOSE AND OUTCOME

Purpose refers to the intended or desired outcome of your organization; *outcome* refers to the actual results that your organization yields. Ideally, your purpose and outcomes will match.

EXAMPLE

The Federal Emergency Management Agency (FEMA) is a component of the Department of Homeland Security (DHS). According to its website, the mission of FEMA "is to support our citizens and first responders to ensure that as a nation we work together to build, sustain, and improve our capability to prepare for, protect against, respond to, recover from, and mitigate all hazards."[3]

FEMA has also created a strategic plan—the *FEMA Strategic Plan 2014-2018*—that articulates its objectives and the strategies that it will employ to achieve them.[4] In the document, FEMA defines its strategic priorities and breaks them down into key outcomes. This document is a great example of a resource that can help anyone to determine their organization's purpose.

II. Ask yourself these essential questions

a. What is your organization's purpose?
b. What are your activities for achieving the purpose?
c. What resources are available to you?
d. What do you produce?
e. What are the results of your organization's efforts?
f. What external factors affect your organization?

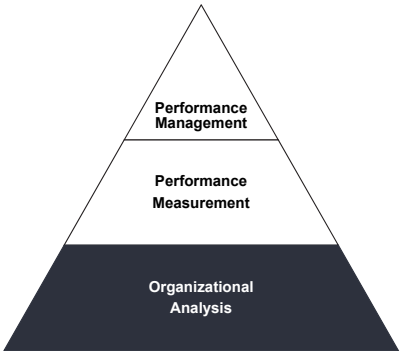

Figure 3: Focus on organizational analysis

WHAT ARE WE TALKING ABOUT?

To conduct an analysis of your organization, you must first understand how it works. What are its key elements, and what are the links between them? What are the factors that influence some or all of those elements? Thinking about and answering these essential questions will help to focus your attention on the factors that help to define your organization.

WHY IS IT IMPORTANT?

You may not be able to answer each of these questions in meaningful detail. However, thinking about them is the first step in analyzing your organization. It will provide the basis for all of your work going forward.

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[3] "About the Agency," Federal Emergency Management Agency, http://www.fema.gov/about-agency.

[4] Federal Emergency Management Agency, *FEMA Strategic Plan 2014-2018* (Washington: Federal Emergency Management Agency, 2014), http://www.fema.gov/media-library-data/1405716454795-3abe60aec989ecce518c4cdba67722b8/July18FEMAStratPlanDigital508HiResFINALh.pdf.

HOW DO YOU DO IT?

At this point, you may think of the questions above as the foundation for conducting a more rigorous organizational analysis. If you have the right people in the room, each essential question will probably lead to more detailed and specific questions. In the "Key questions and helpful hints" section below, we provide several examples of this. The list of questions is not exhaustive, but they should spur useful conversation.

KEY QUESTIONS AND HELPFUL HINTS

What is your organization's purpose?

- Does it align with higher missions/goals/objectives?
- Who sets it?
- How often do you revisit it?
- Why is it important?

What are your activities for achieving the mission?

- Can you map the processes?
- What are the activities?
- Who is responsible for doing what?
- When does each activity occur?
- Where does each activity occur?
- Why does each activity occur?

What resources are available to you?

- What do you use to accomplish your activities?
- Are they time or location-sensitive?
- Who provides them?
- How much do you use?
- What qualities must they possess?

What do you produce?

- Can you classify them—goods, services, etc.?
- Can you quantify them?
- Can you qualitatively characterize them?

What are the results of your organization's efforts?

- Are they near term, medium term, or long term?
- Are they tactical, operational, or strategic?

- Do they align with your organization's purpose?

What external factors affect your organization?

- What aspect of your organization do they impact?
- How do they impact your organization?
- To what extent do they impact your organization?

EXAMPLE

For this example, we draw on our research into federal programs that focus on improving resilience. The following descriptions represent a **notional** resilience program, the Federal Resilience Improvement Program (FRIP), first introduced in another publication in this series, *Measuring for Results: Application of Key Concepts to Resilience Measurement*.[5]

The purpose of FRIP is to reduce the impact of natural hazard events on state and local communities through the application of federal grant monies in targeted investments. Those investments are intended to help mitigate the effects of natural disasters and to help communities protect life and property during natural disasters.

Specifically, the goals of the FRIP are to:

- decrease the risk of future losses to communities due to natural disasters,
- reduce the costs and consequences to communities of natural disasters, and
- reduce the downtime for critical services after natural disasters.

The purpose and goals of the FRIP closely align with DHS's core mission 5, which is to ensure resilience to disasters. In addition, the FRIP supports priority 3 and priority 4 of FEMA's *Strategic Plan*. Priority 3 is to posture and build capability for catastrophic disasters. Priority 4 is to enable disaster risk reduction nationally.

Public Law xxx-x, the Federal Resilience Improvement Program, was passed to enact a program that would outline specific best practices for resilience improvement measures for state and local communities. Those communities could then apply for grants that would be used to implement the measures.

Public Law xxx-x also provides for $25 million in grant money to be disbursed each year. In addition, $5 million will be provided for program operations. This

[5] Erin Goodykoontz et al., *Measuring for Results: Application of Key Concepts to Resilience Measurement*, (Falls Church, VA: Homeland Security Studies and Analysis Institute, October 2015).

total budget is subject to congressional approval and renewal each fiscal year. Public Law xxx-x directs Federal Department X to administer the program.

A headquarters staff of five people within Department X is responsible for implementing the operations budget and approving grant requests. One person from each of the 10 regional offices of Department X is responsible for overseeing the disbursement of grant monies and tracking their use. All of the federal personnel involved in the program will receive the education and training necessary to administer a federal grant program.

The program manager of the FRIP is responsible for ensuring that the following activities occur:

- Provide Guidance for Conducting Vulnerability Assessments.
    - Help communities identify natural disaster risks to communities.
    - Help communities identify and map vulnerabilities in communities.
- Provide Guidance for Developing Risk Management Strategies.
    - Review community development of risk management strategies.
    - Review community adoption and implementation of resilience improvement measures.
- Provide Specific Best Practices for Resilience Improvement Measures.
- Grant Administration
    - Administer community membership in the FRIP.
    - Promote the FRIP grant application process.
    - Set grant parameters for acceptable resilience improvement measures.
    - Maintain the grant approval process.
    - Provide grants.
    - Monitor grant expenditures and implementation of resilience improvement measures.
- Measurement
- Develop and maintain measures and metrics for program effectiveness.

The resources available to the program manager include $25 million in grant money to be disbursed each year. In addition, $5 million will be provided for program operations. The program manager has a headquarters staff of five people. This is in addition to the 10 regional staff members responsible for overseeing the disbursement of grant monies and tracking their use. All of the federal personnel involved in the program will receive the education and training necessary to administer a federal grant program.

There are three main desired outcomes of the FRIP. The first is to strengthen national resilience. The second is to reduce the impact of natural disasters on communities. The third is to encourage communities to adopt resilience improvement measures. There are several potential measures associated with each desired outcome. They are listed below:

- Strengthen national resilience.
    - Reduce the downtime of key services in state and local communities.
    - Reduce the damage to critical infrastructure in state and local communities.
- Reduce the impact of natural disasters on communities.
    - Decrease the loss of life and loss of property for state and local communities based on comparisons to past similar natural disasters.
    - Decrease the number of disaster declarations for state and local communities based on comparisons to past similar natural disasters that were declared disasters.
    - Reduce the downtime of key services in state and local communities based on comparisons to past similar natural disasters.
    - Reduce the damage to critical infrastructure in state and local communities based on comparisons to past similar natural disasters.
- Encourage communities to adopt resilience improvement measures.
    - Increase the number of state and local communities that have adopted resilience improvement measures.

These desired outcomes reflect a focus on long-term impact. The FRIP is designed to help communities immediately, but the program managers in charge of it realize that the activities and results will have a benefit that plays out over time as more and more communities adopt the standards and strategies. Because the FRIP is a federal program, it is subject to some basic external factors namely, budget and political support. If either of these wane, then the program will likely suffer in terms of grant monies available.

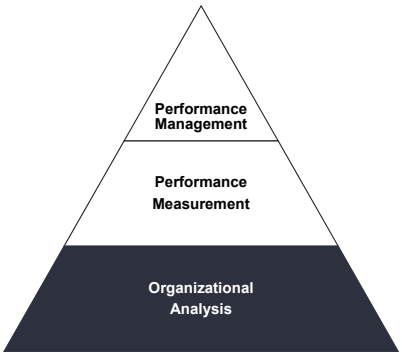

Figure 4: Focus on organizational analysis

III. Analyze your organization

a. Program Logic Model

b. Strategy Mapping

WHAT ARE WE TALKING ABOUT?

To know whether your organization is efficient, effective, or impactful, you must first understand the basic elements of your organization. Once you know these things, then you can begin to measure your organization's activities and communicate their impact.

WHY IS IT IMPORTANT?

To show your organization's value and impact, you have to be able to show proof that it is producing the results that it has set out to produce. And to do this, you must first be able to illustrate all of the key elements of your organization as well as the relevant relationships between those elements. When you have done this, you can then begin to measure your organization's performance and prove its impact.

HOW DO YOU DO IT?

Throughout this series of documents, we propose the use of a program logic model. A logic model tells you about the relationships between the key elements of your organization. Specifically, our logic model framework looks at an organization's purpose, inputs, processes, outputs, outcomes, and external factors.

We also advocate strategy mapping. It is known as part of the Balanced Scorecard method championed by Kaplan and Norton.[6] In our usage, strategy mapping can show the organization's relationship to higher-level goals and objectives. In addition, it can demonstrate the vertical and horizontal linkages between the key factors within the organization.

KEY QUESTIONS AND HELPFUL HINTS

Define key terms (we use the program logic model)

- Purpose: what your organization intends to accomplish
    - also known as mission, goals, or objectives

[6] Paul R. Niven, *Balanced Scorecard Step by Step: Maximizing Performance and Maintaining Results*, 3rd ed. (Hoboken, NJ: John Wiley & Sons, 2006), 27.

- Inputs: the resources used to accomplish the organization's purpose
  - includes finances, people, investments, etc.
- Processes: the actual organizational activities or efforts
- Outputs: the products, goods or services produced by the organization's activities
- Outcomes: the desired results of an organization's efforts
  - can also be thought of as impact
- External Factors: factors that exist outside an organization's sphere of influence but that may impact the organization's inputs, processes, outputs, or outcomes. For government organizations, external factors could include politics, budgetary constraints, public opinion, and even other organizations. For nongovernment organizations, external factors could include the economy, the stock market, or the news cycle.

Use a framework to conduct organizational analysis (we use the program logic model approach—see the following)

Purpose

Be sure to involve all of the relevant stakeholders, process owners, and customers.

It helps to think in terms of missions, goals, and objectives.

Map your purpose to higher-level missions, goals, or objectives.

- strategy mapping

Inputs

What resources are necessary to conduct the organization's activities?

- Where do the resources come from?
- Who provides them?
- How much is needed?
- How are they used?
- Is there a time requirement involved?

How are resources affected by the purpose?

Processes

Document all of the activities that are conducted by the organization in pursuit of the purpose.

Tools for documenting processes:

- flowcharts
- process maps

Key questions:

- Who owns the process, or why does it exist?
- What value does the process create?
- What output is produced?
- Who provides inputs to the process? What are they?
- Who benefits from the process?
- Are there sub-processes?

There may be a single process or multiple processes. Identify, define, and describe all of them. When the process is measured, it will allow you to establish the process baseline, which is necessary for performance measurement.

Clearly illustrate the links between inputs and processes.

- Identify which resources are used to conduct which processes.

Outputs

Document the outputs of each process or sub-process.

Clearly illustrate the links between processes and outputs.

- Identify which processes produce which outputs.

Outcomes

Identify the actual results of the organization's efforts.

- Remember, there may be near-term outcomes that can be assessed immediately, and longer-term outcomes that may not visible for a long time.
- Remember that outcomes may also exist at a tactical, operational, or strategic level; or all three.

Clearly illustrate the links between outputs and outcomes.

- Identify which outputs produce which outcomes.

Demonstrate the alignment between outcomes and purpose.

- Identify which outcome aligns with which purpose.

Illustrate linkages and relationships (we use strategy mapping)

Strategy mapping is often used in performance measurement, particularly the Balanced Scorecard method of Kaplan and Norton, as mentioned earlier. In their use, a strategy map articulates an organization's objectives that will help it to achieve its strategy. It also utilizes cause and effect to demonstrate the relationships among an organization's objectives and its various performance measures.[7] In our usage, strategy mapping shows the organization's relationship to higher-level goals and objectives. In addition, it demonstrates the vertical and horizontal linkages between the key factors within the organization. For performance measurement, strategy mapping will tell you whether or not your organization is aligned with its higher-level direction. It can also depict the relationships between the key elements of your efforts.

EXAMPLE

For this example, we continue with our notional federal program—the Federal Resilience Improvement Program (FRIP). Below is a notional depiction of the FRIP, drawing on the earlier program description, that illustrates how it can be characterized using the program logic model approach.

Purpose: The purpose of FRIP is to reduce the impact of natural disasters on state and local communities through the application of federal grant monies in targeted investments.

- Specifically, the program goals of the FRIP (connected to larger goals in higher-level documents) are to:
  - decrease the risk of future losses to communities due to natural disasters,
  - reduce the costs and consequences to communities of natural disasters, and
  - reduce the downtime for critical services after natural disasters.

Inputs

- Guidance
  - Legislation: Public Law xxx-x, Federal Resilience Improvement Program
  - Authorities: Resilience improvement measures for state and local communities
- Finance
  - Budget: $5 million (operations); $25 million (grants)

[7] Ibid.

    - Schedule: Budget subject to congressional approval for renewal each fiscal year.
- Organization
    - Division of labor: Federal Department X is responsible for administering the FRIP.
        - A headquarters staff within Federal Department X is responsible for implementing the operations budget and approving grant requests.
        - 10 regional offices within Federal Department X are responsible for overseeing the disbursement of grant monies and tracking their use.
    - Personnel: Five personnel at Federal Department X headquarters and 10 personnel in the regional offices.
- People
    - Training: education and training for personnel to administer a federal grant program
    - Knowledge/Skills/Ability: federal program management
        - reviewing grant applications
        - approving grant applications
        - administering grant monies
- Equipment
    - Material: office equipment
    - Technology: office equipment

Processes

- Provide Guidance for Conducting Vulnerability Assessments.
    - Help communities identify natural disaster risks to communities.
    - Help communities identify and map vulnerabilities in communities.
- Provide Guidance for Developing Risk Management Strategies.
    - Review community development of risk management strategies.
    - Review community adoption and implementation of resilience improvement measures.
- Provide Specific Best Practices for Resilience Improvement Measures.
- Grant Administration
    - Administer community membership in the FRIP.
    - Promote the FRIP grant application process.

    - Set grant parameters for acceptable resilience improvement measures.
    - Maintain the grant approval process.
    - Provide grants.
    - Monitor grant expenditures and implementation of resilience improvement measures.
- Program Performance Measurement
- Develop and maintain measures and metrics for program effectiveness.

Outputs

- community membership in FRIP
- community natural disaster risks identified
- community vulnerabilities assessed
- community risk management strategies developed
- community adoption of resilience improvement measures
- number of grant applications received
- number of grant applications processed
- number of grant applications approved
- amount of grant dollars disbursed
- life and property damage assessments after natural disasters
- disaster declarations for natural disasters
- damage assessments for key services and critical infrastructure

Outcomes

- Strengthen national resilience.
    - Reduce the downtime of key services in state and local communities.
    - Reduce the damage to critical infrastructure in state and local communities.
- Reduce the impact of natural hazards on communities.
    - Decrease the loss of life and loss of property for state and local communities based on comparisons to past similar natural disasters.
    - Decrease the number of disaster declarations for state and local communities based on comparisons to past similar natural disasters that were declared disasters.
    - Reduce the downtime of key services in state and local communities based on comparisons to past similar natural disasters.

    - Reduce the damage to critical infrastructure in state and local communities based on comparisons to past similar natural disasters.
- Encourage communities to adopt resilience improvement measures.
    - Number of state and local communities that have adopted resilience improvement measures.

Performance Measurement

After you have conducted an organizational analysis, you are ready to begin performance measurements. Performance measurement is the quantitative and qualitative collection of information about the key elements that were identified as a result of the organizational analysis.

IV. Identify the key indicators of performance for your organization

a. Are all the necessary stakeholders and process owners involved?

b. How do you define acceptable/desired levels of performance?

c. Can you identify key indicators of acceptable performance?

d. Can you collect information on the indicators?

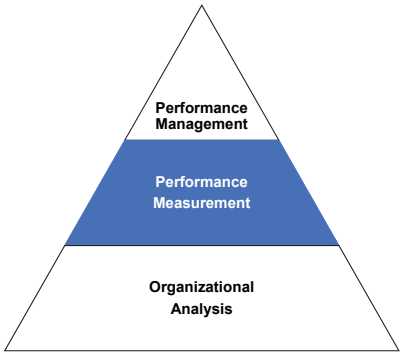

Figure 5: Focus on performance measurement

WHAT ARE WE TALKING ABOUT?

Once you have analyzed the crucial elements of your organization (shown in the program logic model), and you understand the processes and relationships between each, you are ready to measure performance. When we talk about measurement, we mean the quantitative and qualitative collection of information about these crucial elements. To conduct measurement, you must have a set of key indicators that you can use that tell you about organizational performance. These indicators are the factors that impact actual results. When you have identified the key indicators, you can devise measures to gauge them.[8]

[8] For more information on this topic, refer to Goodykoontz et al., *Measuring for Results: Key Concepts*, chapter 5.

KEY INDICATOR

Observable aspects of an organization that have been determined to impact the desired results.

MEASURE

Quantitative and qualitative information collected on key aspects of an organization. Measures can tell you things about an organization's performance such as quality, cost, timeliness, customer satisfaction, or efficiency.

WHY IS IT IMPORTANT?

These key indicators are the things you need to measure to understand your organization's performance toward its purpose and outcomes. Therefore, they must accurately reflect the processes and results that the organization is focused on. If they are inaccurate, or if they are the wrong ones, then it will be difficult to gain any insight into either the organization's functions or how well you are meeting desired outcomes.

HOW DO YOU DO IT?

Key indicators should be directly linkable to purpose and desired outcomes. Once you have identified your purpose and decomposed it into its basic components, then you can identify those indicators that are critical to achieving each of those components.

KEY QUESTIONS AND HELPFUL HINTS

Know your purpose

Your organization's purpose will drive the selection of key indicators, and indicators should not be selected without a clear sense of purpose. For government organizations, this might mean a close examination of mission, goals, and objectives. For nongovernment organizations it might include a thorough understanding of a customers' wants and needs.

Review the key indicators

Once you have developed key indicators, review them to determine the feasibility of collecting information to measure against that indicator.

Know how to define acceptable levels of performance against the selected indicators.

Understand what is acceptable and what is unacceptable in terms of performance.

EXAMPLE

The goal of the Department of Power for Anytown, USA, is to make sure that after a natural disaster, the electrical power provided to residential and commercial customers is quickly restored with minimal loss of downtime.

Practically speaking, the Department of Power has determined what this means for an area affected by a normal natural disaster: within 12 hours of

losing power, at least 50 percent of customers will have power; within 18 hours, 75 percent will have power; and by 24 hours, 100 percent of residential and commercial customers will have power restored.

Based on their goals and specific objectives, the Department of Power has determined that their **key indicators** will include the following:

- comparison of customers affected by power outage to total number of customers (percentage without power)
- comparison of customers who regain power to those who do not (rate of restoration)

V. Collect data on your organization's performance

a. Create a data collection plan based on the key indicators

b. Implement your data collection plan

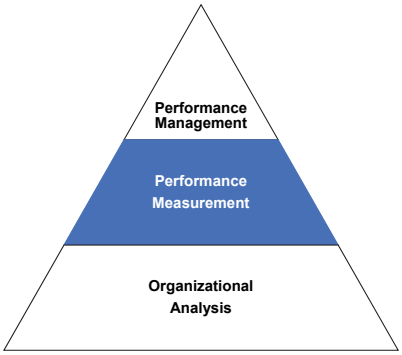

Figure 6: Focus on performance measurement

WHAT ARE WE TALKING ABOUT?

Here, we are concerned with (1) developing a plan for collecting data on the key indicators, and then (2) implementing that plan. Ultimately, we will use the data to determine performance.

This step is only possible after you have documented the key elements of your organization. Characterizing the purpose, inputs, processes, outputs, and outcomes will tell you the basic story of your organization. This leads to another benefit: once you have identified those factors, you can then focus on the elements of them that are most important. These are the key indicators that you have created based on the input of all relevant stakeholders, process owners, and customers. You can then collect data on, or measure, those key indicators.

WHY IS IT IMPORTANT?

The most obvious way to determine how well your organization is doing is to collect the data that you will use to measure its performance. Until you collect the data, you cannot begin to assess your performance. To collect the data, you need to come up with a plan that will guide you through the process.

HOW DO YOU DO IT?

Here are several steps that will help you to collect data for performance measurement, drawing on organizational analysis and measurement activities introduced earlier.

1. Analyze your organization: characterize the purpose, inputs, processes, outputs, and outcomes of your organization's efforts.
2. Develop the list of key indicators: identify and list the aspects of your organization's efforts that have been determined to have the most impact on your desired results.
3. Create measures/metrics: determine the specific measures/metrics that will tell you what you want to know about the key indicators.
4. Collect data on key indicators: measure your organization's efforts using the measures/metrics for each of the key indicators.

KEY QUESTIONS AND HELPFUL HINTS

Optimize measures/metrics

Optimize your measures/metrics[9]

- Don't have too many. One to three per indicator is good.
- Make yourself accountable for those measures.
- Ensure that everyone knows them.
- Simplify, simplify, simplify.

Ask some key questions

When you have developed your measures/metrics, ask yourself these questions:[10]

- What am I trying to accomplish with them?
- Will my team be able to explain and perform to this measure/metric?
- Will this measure/metric help me better assess and manage my team?
- Do my processes support this measure/metric? If not, what needs to be changed?

MEASURES VS METRICS

In the world of performance measurement, you may run across the term *metrics*, in addition to the term *measures*, which is what we've been using in this resource. Some people see value in drawing a clear distinction between measures and metrics as concepts; others use the two terms interchangeably.

Complicating matters further, different people define the two terms in different ways. For instance, some (e.g., the DHS/NIST Software Assurance Metrics and Tool Evaluation project) equate metrics with constructs and measures with indicators; others use the two interchangeably.

In this resource, we don't take a hard-line stance on the definitions of measures and metrics as the quantitative and qualitative aspects of indicators. Rather, we recommend that organizations adopt the preferred terminology of their stakeholders when discussing their performance measurement systems.

[9] Adapted from Alex McClafferty, "How to Improve Customer Satisfaction and Avoid Metric Overwhelm," Forbes.com, http://www.forbes.com/sites/alexmcclafferty/2015/10/01/customer-satisfaction/2/.

[10] Adopted from Ibid.

Create a data collection plan

Before you collect the data to assess performance against the measures/metrics associated with each key indicator, have a plan. At a minimum, your plan should document:

- why you are collecting the data
- what aspect of the organization's key elements that you will be measuring
- the key indicators to be measured (and how you define them)
- the measurement tool that will be used to collect data
- who is responsible for collecting data
- when and for how long the data collection process will occur
- where the data collection will take place
- sources for the data collection
- to whom the information will be reported

EXAMPLE

The goal of the Department of Power for Anytown, USA, is to make sure that after a natural disaster, the electrical power provided to residential and commercial customers is quickly restored with minimal downtime.

Practically speaking, the department has determined what this means for an area affected by a normal natural disaster: within 12 hours of losing power, at least 50 percent of customers will have power; within 18 hours, 75 percent will have power; and by 24 hours, 100 percent of residential and commercial customers will have power restored.

Based on its goals and specific objectives, the Department of Power has determined that its **key indicators** will include the following:

- comparison of customers affected by power outage to total number of customers (percentage without power)
- comparison of customers who regain power to those who do not (restoration rate)

The associated **measures/metrics** for these indicators are as follows:

- Classification of natural disaster
    - type of natural disaster
    - category or rating (if applicable) of natural disaster

- Comparison of customers affected by power outage to total number of customers
    - total number of customers
        - number of residential customers
        - number of commercial customers
    - total number of customers without power
        - number of residential customers without power
        - number of commercial customers without power
- Comparison of customers who regain power to those who do not
    - total number of customers who regain power
        - number of residential customers who regain power
        - number of commercial customers who regain power
    - time elapsed between power loss and power restoration
    - how many minutes, hours, days, weeks until power restoration for affected customers
        - time elapsed for residential customers
        - time elapsed for commercial customers

The Department of Power has a **data collection plan** in place. It is organized into seven sections. The following is a brief outline and some key information.

Purpose of this Plan

- The purpose of this data collection plan is to identify key responsibilities and approaches for measuring the performance of the Department of Power during power outages that occur in the course of natural disasters.
- After a natural disaster occurs, the Department of Power will conduct an assessment of its performance during the disaster. The department will collect data on its performance using the guidelines set forth in this plan.
- The specific aspect that will be measured by the Department of Power is power restoration time.

Point of contact

- This data collection plan shall be maintained by the Department of Power chief risk officer.
    - The chief risk officer shall be responsible for ensuring that the data collection plan will be enacted as appropriate.

Key indicators and associated measures

- The Department of Power has identified these key indicators for performance measurement and created the following measures/metrics:

- Indicator: comparison of customers affected by power outage to total number of customers
    - Measure/Metric: total number of customers
        - number of residential customers
        - number of commercial customers
    - Measure/Metric: total number of customers without power
        - number of residential customers without power
        - number of commercial customers without power
- Indicator: comparison of customers who regain power to those who do not
    - Measure/Metric: total number of customers who regain power
        - number of residential customers who regain power
        - number of commercial customers who regain power
    - Measure/Metric: time elapsed between power loss and power restoration
        - how many minutes, hours, days, weeks until power restoration for affected customers
            - time elapsed for residential customers
            - time elapsed for commercial customers

Table 1: Example data collection plan

INDICATOR	MEASURE/METRIC	POC	SOURCES/TOOLS	WHEN	DURATION	LOCATION	COMMUNICATIONS
Comparison of customers affected by power outage to total number of customers	Total number of customers • number of residential customers • number of commercial customers	Director of Maintenance and Operations	Office of Director of Maintenance and Operations Intra-office communications	Numbers collected and reported hourly from the beginning of disaster operations until the cessation of all disaster operations	Numbers should be tracked throughout the duration of the disaster and updated as necessary	Numbers are collected in the office of the Director of Maintenance and Operations; numbers made available via the departments' internal and external website	Numbers are reported to the general manager, chief risk officer, all components and units of the department, and the general public
	Total number of customers without power • number of residential customers without power • number of commercial customers without power	Director of Maintenance and Operations	Customer reporting Field operations teams and reporting Power grid monitoring software	Numbers collected and reported hourly from the beginning of disaster operations until the cessation of all disaster operations	Numbers should be tracked throughout the duration of the disaster and updated as necessary	Numbers are collected in the office of the Director of Maintenance and Operations; numbers made available via the departments' internal and external website	Numbers are reported to the General Manager, Chief Risk Officer, all components and units of the department, and the general public

INDICATOR	MEASURE/METRIC	POC	SOURCES/TOOLS	WHEN	DURATION	LOCATION	COMMUNICATIONS
Comparison of customers who regain power to those who do not	Total number of customers who regain power • number of residential customers who regain power • number of commercial customers who regain power	Director of Maintenance and Operations	Customer reporting Field operations teams and reporting Power grid monitoring software	Numbers collected and reported hourly from the beginning of disaster operations until the cessation of all disaster operations	Numbers should be tracked throughout the duration of the disaster and updated as necessary	Numbers are collected in the office of the Director of Maintenance and Operations; numbers made available via the departments' internal and external website	Numbers are reported to the general manager, chief risk officer, all components and units of the department, and the general public

	Time elapsed between power loss and power restoration
	• How many minutes, hours, days, weeks until power restoration for affected customers
	  • Time elapsed for residential customers
	  • Time elapsed for commercial customers
		Director of Maintenance and Operations	Customer reporting
			Field operations teams and reporting
			Power grid monitoring software
				Numbers collected and reported hourly from the beginning of disaster operations until the cessation of all disaster operations	Numbers should be tracked throughout the duration of the disaster and updated as necessary	Numbers are collected in the office of the Director of Maintenance and Operations; numbers made available via the departments' internal and external website	Numbers are reported to the general manager, chief risk officer, all components and units of the department, and the general public

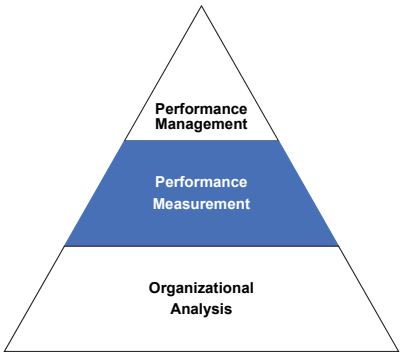

Figure 7: Focus on performance measurement

VI. Use the collected data to determine if your organization's performance is acceptable

a. Analyze the data to determine levels of performance

b. Does your organization meet the acceptable level of performance that has been previously defined?

WHAT ARE WE TALKING ABOUT?

This is really about comparing desired performance to actual performance. Are you providing the good or service that you say you provide? Are you doing it at the level that you say should be? Another way to think about this is to ask yourself, "Are we actually achieving the goals that we have set for ourselves?"

WHY IS IT IMPORTANT?

There is no way to know how well you are performing unless you have data on your actual performance. These data are what you will use to make vital decisions for your organization, decisions like setting priorities, allocating resources, or identifying problems that must be fixed. The measurements you collect will allow you to make data-driven decisions.

However, in a larger sense, when you collect these data, your focus should be to assess how well your outcomes achieve the purpose of your organization. Measuring your organization's performance will help you to determine whether your actual results—the outcomes—are aligned with the intended results—the purpose. If you know this, then you can decide on any changes that your organization needs to make.

HOW DO YOU DO IT?

If you have been diligent about identifying your organization's key factors, and you have developed sufficient indicators of your performance for measurement, then this assessment should be easy. It is simply a matter of comparing your actual performance to your desired purpose.

KEY QUESTIONS AND HELPFUL HINTS

Conduct a gap analysis

This is essentially a gap analysis. That is, you are comparing your current state to a desired "to-be" state. Wherever the two do not align, you have a gap.

Consider other performance measurement tools

The Balanced Scorecard is a performance measurement methodology that emphasizes measurements in four areas: customer, financial, internal processes, and learning and growth.[11] Focusing on these areas allows managers to ensure that internal processes and objectives stay aligned with a strategy or vision. It gives them information that can be used to manage organizational performance.

Illustrate linkages and relationships (we use strategy mapping)

EXAMPLE

After a recent EF4 tornado, the Department of Power for Anytown, USA, assessed its performance. The goal of the department is to make sure that after a natural disaster, the electrical power provided to residential and commercial customers is quickly restored with minimal loss of downtime.

Practically speaking, the department has determined what this means for an area affected by a normal natural disaster: within 12 hours of losing power, at least 50 percent of customers will have power; within 18 hours, 75 percent will have power; and by 24 hours, 100 percent of residential and commercial customers will have power restored.

Their performance after the tornado:

Table 2: Example of customer power restoration measurement

	Goal	Actual	Difference
0 – 12 hours	50%	35%	15
0 – 18 hours	75%	75%	-
0 – 24 hours	100%	100%	-

Based on its data, the department has determined that its performance within the first 12 hours was unacceptable and therefore deserves a closer inspection.

[11] Niven, *Balanced Scorecard Step by Step*, 12.

Performance Management

Once you have measured the performance of your organization, you are in a position to manage. Performance management is the use of your performance data to make decisions about planning, programming, prioritizing, process improvement, or other activities.

VII. Manage organizational performance

a. Identify the purpose of your performance management efforts
b. Interpret performance measurement results
c. Devise a plan and take action (if necessary)

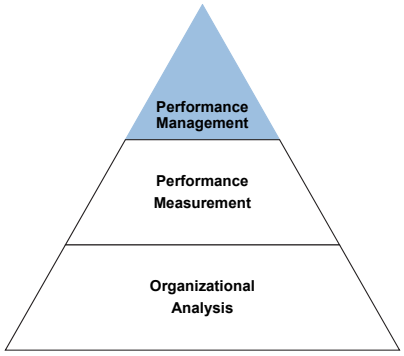

Figure 8: Focus on performance management

WHAT ARE WE TALKING ABOUT?

Once you have collected data on your organization's performance and performed a gap analysis, you will know whether or not you are meeting your goals. If you are, then your documentation should help you tell the story of your organization's success. If you are not, then you have the information you will need to begin the process of improving your organization's performance.

You can also use your performance measurement data for activities other than process improvement. Your organizational analysis and data collection can help you answer important management questions about planning, programming, and prioritizing.

"Performance management is "the use of performance information to affect programs, policies, or any other organization actions aimed at maximizing the benefits of public services."

– Harry Hatry, "Performance Measurement: Fashions and Fallacies," *Public Performance & Management Review* 25, no. 4 (June 2002), 352.

WHY IS IT IMPORTANT?

Performance management includes making organizational decisions such as prioritization, resource allocation, or process improvement. Ultimately, the focus of your management efforts will depend upon what objective you hope to achieve.

HOW DO YOU DO IT?

First, figure out what your objective is. Is it to align your organization's purpose with higher-level missions, goals, or objectives? Or do you want to identify the resources you use for certain activities? Or do you need to improve performance in some key area? Once you have answered that question, collect data. Hopefully, by now, you see the importance of using data to inform any decision that you need to make. Then, after you have figured out your objective and found the data that tell you what you want to know, you can interpret them and figure out the answer to your question.

KEY QUESTIONS AND HELPFUL HINTS

Involve all of the right people

Be sure to involve all of the relevant stakeholders, process owners, and customers.

Determine what you want to manage

Begin by determining what aspect of organizational performance you are interested in managing:

- documenting
- planning
- programming
- prioritizing
- process improvement
- other?

Analyze the data

Analyze the performance data you have on hand.

Consider process improvement tools

You may be called upon to improve some element of your organization's performance. Often, that entails some sort of process improvement effort.

The following broad guidelines can help frame that effort. These guidelines are based on the process used in the Six Sigma methodology.

Identify your organization's problems/deficiencies.

- Can you define and explain them?
- Why are they a problem?

Characterize the nature of each problem.

- What is the impact of the problem?
- Can you quantify it?

Develop solutions to the problem.

- Is there a process improvement method that can help you to correct the problem?
- Can a process improvement method be implemented?
- What resources will be required?
- Who will be responsible?
- What is the plan for correcting the problem?
- How will it correct the problem in a measurable way?

Implement the solution.

- How will you monitor the implementation?
- How will you measure results?
- How will you control the process to ensure acceptable performance in the future?

EXAMPLE

Based on their performance after a recent EF4 tornado, the Department of Power for Anytown, USA, has decided to initiate a study and possible process improvement effort. It has devised an initial plan that addresses the problem.

Problem: The department only restored power to 35 percent of affected customers within the first 12 hours after the tornado. This fell short of the goal of 50 percent. This is a problem because the 15 percent difference represents 15,000 individuals impacted by the power outage, including two hospitals and an airport. The hospitals and airport were able to switch over to generators for power, but that only sustained their operations for 12 hours.

There was a time lapse of approximately 30 minutes when there was no power available at all. Fortunately, there were no casualties.

Potential solution: To prevent another such lapse, the department proposes an in-depth study to identify the causes of the poor performance. Based on the outcome of the study, the department is prepared to implement a process improvement effort. The general manager has dedicated resources to a team that is composed of Six Sigma practitioners who will study the department's performance failures and then recommend a course of action.

Conclusion

This document, *Measuring for Results: Key Questions and Tools for Analyzing and Understanding your Organization and its Performance*, is the third in a series created by the Homeland Security Studies and Analysis Institute. It provides a framework that can aid you in telling the story of your organization—its processes, its value, and its potential for improvement. The hints and examples presented throughout illustrate some specific steps that can be taken conduct an organizational analysis, measure performance and plan for process improvement.

For more information on the topics discussed in this document, consult the following:

- Federal Emergency Management Agency. FEMA Strategic Plan, 2014-2018. Washington: Department of Homeland Security. 2014. Accessed October 6, 2015. http://www.fema.gov/media-library-data/1405716454795-3abe60aec989ecce518c4cdba67722b8/July18FEMAStratPlanDigital508HiResFINALh.pdf.
- Goodykoontz, E., et al., *Measuring for Results: Key Concepts for Understanding the Performance of DHS Programs and Activities*. Falls Church, VA: Homeland Security Studies and Analysis Institute. October 2014.
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- Niven, Paul R. *Balanced Scorecard Step by Step: Maximizing Performance and Maintaining Results*, 2nd ed. Hoboken, NJ: John Wiley & Sons. 2006.
- Pyzdek, Thomas, and Paul Keller. *The Six Sigma Handbook*, 3rd ed. New York: McGraw-Hill Companies, Inc. 2010.

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