

Performance Measure Guide

State of Washington

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Office of Financial
Management



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What is a performance measure?

A performance measure is a numeric description and results of an agency's work. Performance measures are based on data and tell a story about whether an agency or activity is achieving its objectives, and if progress is being made toward achieving policy or organizational goals.

In technical terms, a performance measure is a quantifiable expression of the amount, cost, or result of activities that indicate how much, how well, and at what level, products or services are provided to customers during a given time.

“**Quantifiable**” means the description can be counted more than once or measured using numbers.

“**Activities**” mean the work, business processes and functions of state government agencies.

“**Results**” are what the agency's work is intended to achieve or accomplish for its customers.

Examples of performance measures:

- Average days to process a permit per quarter
- Number of acres cleared per year
- Percentage of graduates finding work within one month

Why we need performance measures

There are several reasons to measure, monitor and report performance of our work.

It's the right thing to do. We measure many things in our lives outside work.

- Our children regularly bring home objective measures of their performance at school (i.e., test scores and report cards).
- We get monthly measures of performance at home: investment performance, water and electricity usage, etc.
- We monitor our health through a variety of measures of how well our body is performing: weight, blood pressure and cholesterol levels.

Work performance is another aspect of our lives and measuring it should be what we do.

It's the law. Washington's budget law requires agencies to measure performance and report measures to OFM:

[RCW 43.88.090 \(2\)](#) Each state agency shall define its mission and establish measurable goals for achieving desirable results for those who receive its services and the taxpayers who pay for those services. [. . .]

(3) For the purpose of assessing activity performance, each state agency shall establish quality and productivity objectives for each major activity in its budget. The objectives must be consistent with the missions and goals developed under this section. The objectives must be expressed to the extent practicable in outcome-based, objective, and measurable form.

[. . .] Objectives must specifically address the statutory purpose or intent of the program or activity and focus on data that measure whether the agency is achieving or making progress toward the purpose of the activity and toward statewide priorities.

Budget decisions. OFM requires agency budget requests to be linked to performance measures so budget analysts can understand what results or improvements to expect from an investment of resources. This carries out the Legislature’s policy that each agency's budget recommendations must be directly linked to the agency's stated mission, goals and objectives, and that agency budget proposals must integrate performance measures “that allow objective determination of an activity's success in achieving its goals.” [RCW 43.88.090\(5\)](#). In addition, OFM uses performance data as criteria for assessing which activities are most effective and should be the highest priority for investment.

OFM has built data systems to help agencies meet these requirements. Agencies use the Activity system to describe their work activities and expected results, and then create performance measures in the Results through Performance Management (RPM) system to tell a story about this work. Budget requests must describe incremental changes in performance that can be expected from the investment.

Better management. Performance measures tell managers something important about the agency’s products, services, and business processes. Measures are a tool to help understand, manage and improve.

Effective performance measures enable us to:

- Monitor performance to judge how well we are doing.
- Know if we are meeting our goals and if our customers are satisfied.
- Take action to affect performance or improve efficiency if improvements are necessary.

Performance measures provide the necessary data and information to make informed decisions. Performance measures provide a snapshot of current performance capabilities and track whether actual performance is getting better, staying the same or getting worse over time.

The best performance measures start conversations about organizational priorities, allocation of resources, and ways to improve performance. They offer an honest assessment of effectiveness.

Accountability. Government needs to be accountable to our shareholders and board of directors (i.e., the taxpayers and Legislature) about what return we provide on investment, and our effectiveness in accomplishing our mission. Spending reports talk about the investment of funds; we use performance measures to communicate the return on that investment.

Performance audits by the State Auditor, the Joint Legislative Audit and Review Committee (JLARC) and Results Washington rely on performance measures to determine agency effectiveness at achieving results.

References

[OFM Performance and Results](#)

Results Washington: <http://results.wa.gov>

JLARC, [Audits and Study Reports](#)

Robert Behn, [Eleven Better Practices to Ratchet Up Performance](#). IBM Center for the Business of Government (2006).

Shelley H. Metzenbaum, [Performance Accountability: The Five Building Blocks and Six Essential Practices](#), pp 22-32, IBM Center for the Business of Government (2006).

Washington State Auditor, [Performance Audits](#)

Characteristics of good performance measures

Good performance measures are:

- relevant
- understandable
- timely
- comparable
- reliable
- cost-effective

Although performance measures may have other characteristics, these have been established by the Governmental Accounting Standards Board. OFM uses these as criteria in performance assessments and they are used in almost every kind of performance audit.

- **Specific measures are well-defined and focused.** A specific goal has a much greater chance of being accomplished than a general goal. To set a specific goal, one must answer the six “W” questions: Who, what, where, when, which and why.
- **Relevant** measures matter to the intended audience and clearly relate to the activity being measured. Logic models are a way of establishing relevant measures.
- **Understandable** measures are clear, concise and easy to comprehend. This applies to terms used in titles and descriptions, and technical aspects of the measure such as the scale used in charts or selection of performance targets.
- **Timely** measures have information available frequently enough to have value in making decisions and assessing accountability.
- **Comparable** measures have enough data to tell if performance is getting better, getting worse or staying about the same. They also provide the reader with a frame of reference or context to tell if current performance meets or exceeds expectations.
- **Reliable** measures have data that is verifiable, free from bias and an accurate representation of what it is intended to be.
- **Cost effective** measures justify the time and effort to collect, record, display and analyze the data given the measure’s value. Another aspect of cost-effectiveness is *feasibility*. For instance, an ideal metric may require data collection, the scope and scale of which is far beyond its potential usefulness.
- **Time bound measures have set deadlines.** A goal should be grounded within a time frame. Without it, there’s no sense of urgency.

Performance measures may have other desirable characteristics, such as:

- **Useful** measures help people doing the work understand what is happening with their business process, and how to get better results for customers.
- **Influence** relates to the ability of an agency to influence a measure, to “move the needle on the dial when they push on the pedal.” Some measures are important enough to society that we want to track them, even though a single agency’s influence on them may be difficult to discern. These are often called *indicators*. For budget development, OFM is most interested in measures that an agency can affect.
- **Significant** measures are those that are most important to representing performance. For instance, we can measure an almost infinite number of things about our body (weight, bicep size, body mass, resting heart rate, etc.), but medical science has identified a significant few that are appropriate to use under given circumstances.
- **Feasible** data is on hand or the agency can reasonably expect to collect it.

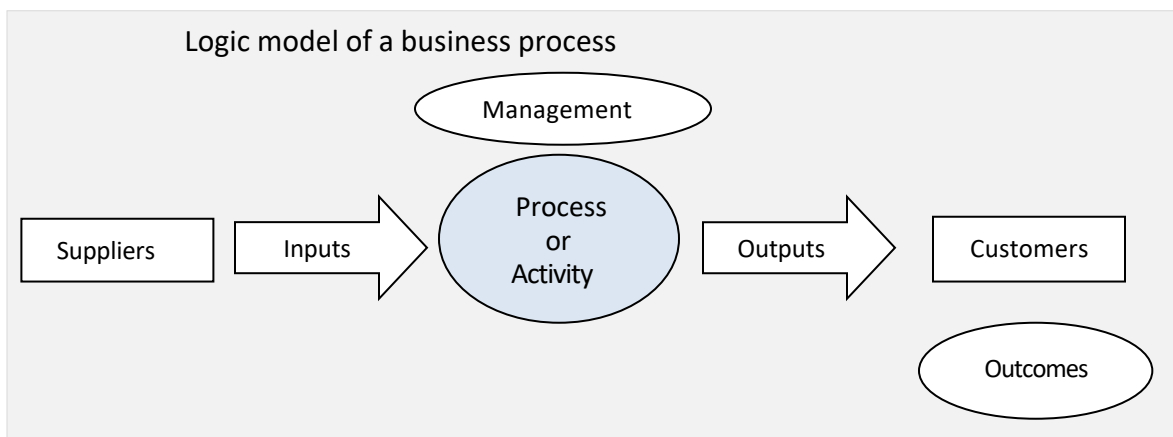
References

Government Accounting Standards Board (GASB), Performance Reporting for Government, [Characteristics Performance Information Should Possess](#), adapted from GASB Concepts Statement No. 2, *Service Efforts and Accomplishments Reporting* (2008).

Developing performance measures

In the best performance management systems, actions and results are logically related to one another by a theory of causality, or “logic model.” Potential measures come from understanding the purpose of the organization and what is being done to accomplish the organization’s mission. Logic models are a useful tool for this. For more ideas, see “What is a logic model?” below.

Agencies exist to carry out certain lines of business or activities. Each activity is accomplished through a business process. We can model almost any business process using the diagram below:



This is sometimes called a “SIPOC” model, for **S**upplier, **I**ntput, **P**rocess, **O**utput, **C**ustomer. Two additional elements of the model are *management* – the individuals in the organization who are responsible for the process, and *outcomes* – what the customer wants to accomplish with the product.

To use this model, write down details for each element. Analysis usually starts with the *business process or activity*, which creates products or services. Any process has several stages or steps that add value by transforming inputs to products or services. *Suppliers* are the groups and organizations that provide materials, equipment and information needed to do the work. *Inputs* are things used by the business process to create products. Examples of inputs are people, buildings, tools, data and computer systems. Another input to a process is customers or clients, sometimes called *workload* or *caseload*.

Outputs, or “widgets,” are tangible, specific products produced by the business process or activity. *Customers* are people who receive the products.

Outcomes are, in general, the purpose or result that customers want from the product or service. We can distinguish several types of outcomes. *Immediate outcomes* are what the customer wants the product or service to do (e.g., customers don’t want electricity; they want light or heat).

Intermediate outcomes describe longer-term changes resulting from the work. *Ultimate outcomes*, or *results*, are broad social goals that the work is supposed to affect or accomplish (e.g., improved health, lower crime rates, reliable transportation, or improved public safety). *Indicators* are high-level measures of progress toward a goal.

Managers can measure at every point in this model. A common way of classifying measures is based on which part of the system is being measured.

Major performance measure types	Description	Example
<i>Input measures</i>	A measure of resources used by an activity or process. Some inputs relate to workload. Others relate to the number of resources used in a process.	Applications received Dollars spent Staff hours used
<i>Output measures</i>	The number of units of a product or service produced or delivered.	Eligibility interviews conducted Children immunized Number of non-compliant woodstoves replaced
<i>Process measures</i>	Describe aspects of the business process, such as completion rate, processing time, backlog, error rates, and so on.	Days to issue a permit
<i>Outcome measures</i>	Measures of ultimate benefits associated with a program or service. Also known as results.	Reduction in deaths Improvement in air quality in areas with wood-stove compliance program

Types of performance measures to consider

Several other types of performance measures relate to elements of the service delivery model and the major performance measure types above:

Other measures	Description (and associated model element)	Example
<i>Efficiency</i>	The unit cost to produce or deliver a product or service – inputs divided by outputs or outcomes – is an attribute of a <i>process</i> .	Cost per successful foster home placement
<i>Quality</i>	The percentage produced or received by customers that meet standards, specifications, or customer needs the first time, without any reworking.	Percent of permits issued that were not appealed
<i>Error rate</i>	The percentage produced or received that do not meet quality standards or specifications the first time, without any reworking.	Percent of decisions returned with a request for clarification
<i>Revenue</i>	The amount collected (may be an <i>input</i> or an <i>outcome</i>).	Revenue from timber sales
<i>Compliance</i>	The percent that voluntarily conforms to legal, financial, or timeliness standards (<i>immediate outcome</i>).	Percentage of permit holders who meet critical water quality requirements
<i>Benchmark or benchmarking</i>	Comparing the performance of a service or business process against peers or leaders in that field.	

References

Fairfax County, Virginia, [Fairfax Measures Up: Basic Manual for Performance Measures](#) (June 2007), p.13.

Government Accounting Standards Board (GASB), [Reporting Initiatives by Service Area. Results Washington](#)

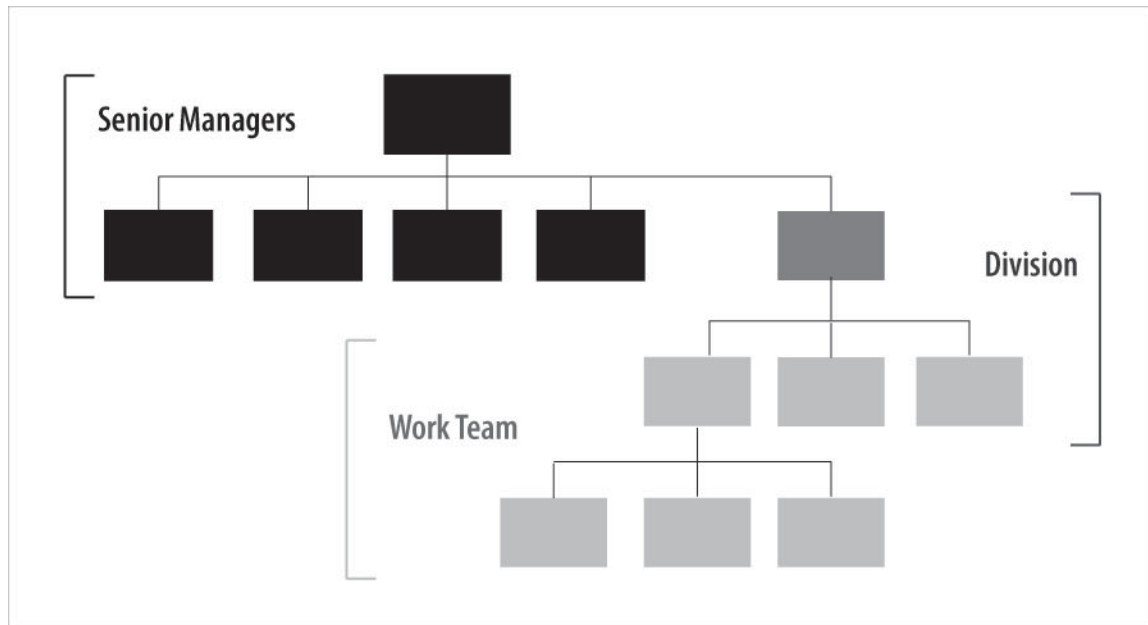
How many performance measures should we have?

There is no set number or formula to determine how many performance measures an agency should have. A study found that tracking too many performance measures at once may cause managers and workers to lose sight of which ones contribute directly to strategic objectives. On the other hand, having too few measures may not tell a good story about your work.

Keep these things in mind when thinking about the number of measures to engage:

- Performance measures cost money, time and staff resources. The more you use, the more it will cost to collect, store, report, monitor and analyze the data.
- Having just one performance measure would be like driving a car with only a gas gauge. You would have no idea how fast the car was traveling or if there were problems with the engine.
- Using too many measures would be like driving a car with a dashboard that has as many dials and gauges as a jet plane. You would be trying to figure out what is happening while being bombarded by information from dozens of different instruments, dials, gauges and warning lights.

One rule of thumb is that it's difficult to simultaneously manage more than 10-15 measures at any given level of the organization. Each level (senior management, division and work team) may have 10 to 15 measures that include some measures used by lower levels. Different levels in an organization will use performance measures. In the diagram below, boxes represent performance measures. Some measures are used at both the senior management and the division level, and by both a work team and at the division level.



Consider developing a balanced, but limited, set of measures that cover many organizational perspectives, such as the Baldrige criteria for performance excellence. Keep the focus on things that matter most, such as:

- Are we accomplishing our mission?
- Are we achieving our strategic goals and objectives?
- Are our customers satisfied?
- Are our main production processes working properly?
- Are we managing our projects and finances?
- Are we as cost-efficient as the national leader in our line of business?

References

Baldrige Program, [Criteria for performance excellence](#)
 Kathy A. Paulson Gjerde and Susan B. Hughes, "[Tracking Performance: When Less is More,](#)"
Management Accounting Quarterly, Vol. 9, No. 1 (Fall 2007)

Narrowing down the list of potential performance measures

Reducing the list of performance measures to a vital few that really mean something to the intended audience (relevance) requires judgment and knowledge about the organization's systems and customers. Keep in mind that the audience who receives the information sets the standard for what is relevant and important.

Typically, internal audiences are interested in *process*-level measures and production *outputs*. Surveys may be measurement tools of last resort for qualitative subjects that defy attempts to measure them quantitatively, such as customer satisfaction. Survey scores can be useful to internal audiences, but usually mean little to external audiences.

External audiences involved in budget and policy development are more interested in *efficiency* and *outcome (results)* measures. Because ultimate outcomes are often influenced by many factors besides an agency's work, the most meaningful measures for judging effectiveness may be *immediate* or *intermediate outcomes*.

References

[Results Washington](#)

National Partnership for Reinventing Government, [Balancing Measures: Best Practices in Performance Management \(1999\)](#)

Writing performance measures

Performance measure titles should be concise and easy for someone not educated in your profession to understand.

- Since performance measures are numeric descriptions of work, start each measure by clarifying the unit of measure, for instance:
 - ♦ “The number of . . .”
 - ♦ “The percentage of . . .”
 - ♦ “The ratio of . . .”
- Next, describe what is being measured. This is usually an attribute of work performance identified in an activity description, expected results statement, or logic model:
 - ♦ The number of days to fill a job vacancy . . .
 - ♦ The percentage of trainees finding a job . . .
 - ♦ The ration of wetland acres cleaned of invasive species . . .
- Finally, when possible, use the word “per” to clarify the reporting cycle:
 - ♦ Average number of days it takes to fill a posted job vacancy per quarter.
 - ♦ Percentage of trainees finding a job within 30 days of training per quarter.
 - ♦ The ratio of wetland acres cleaned of invasive species per year.

Writing performance measures is like any other writing, so expect to have several drafts. Show examples to other people, such as OFM budget or performance assessment staff or agency communication staff, to get feedback about the clarity of the writing.

Common mistakes to avoid in writing performance measures:

- A performance measure should not include explanations of why the measure is important or how the data is collected. Those comments belong in operational definition or relevance fields in OFM's RPM system.
- Avoid jargon and acronyms in performance measure titles, so readers who are not subject matter experts can understand what is being measured.
- Don't word the performance measures as objectives. Objective statements include words such as “increase” or “decrease,” which imply change. Objective statements are not performance measures, although performance measures can tell us whether we are meeting our objectives.

Examples of activities, objective statements, and measures:

Activity	Objective	Performance measure
Teach resume writing to job seekers	Increase resume skills of job seekers	Percentage of trained job seekers finding work within one month
Process applications for permits	Decrease time to review and approve applications	Average number of days to process applications per quarter
Identify user requirements for software	Increase accuracy of gathering user requirements	Number of change requests after delivery (an error rate indicating that initial user requirements were not accurate)

Setting meaningful performance targets

Targets express to the reader what good performance should be. Readers compare targets to actual performance to judge if performance is where they want it to be.

Actual performance capability is a term for the performance level being achieved by an activity or business process. This is what the organization is capable of doing or achieving under status-quo conditions. If there is a large gap between the target and actual performance capabilities, the assumption is that management is working on a solution to bring the two performance perspectives into alignment.

Use the following steps to set meaningful targets.

Step 1: Understand the current (as-is) performance.

- Look beyond normal variation (ups and downs) in the data to determine if the general data direction is increasing, decreasing, or staying the same.
- Determine the average or median of past and current performance. This baseline is the actual performance capability of the activity or process.
- What level of performance is possible given current resources?

Step 2: Gather information about ideal (should-be) performance levels.

- What level of performance do customers want?
- What level of performance do external stakeholders, regulators, or budget developers expect?
- What levels of performance do similar organizations achieve (benchmarking)?

Step 3: Compare the results of Steps 1 and 2.

- If there is no difference, no more work is needed to set a target.
- If there is a gap between actual and desired performance, go to Step 4.

Step 4: Strategic priorities and resource allocation questions.

- Is improvement an organizational priority?
- What resources do you have to invest in changing the process and to integrate the changes into the everyday way the work is accomplished?

Step 5: Set the improvement target level.

- If improvement is an organizational priority **and** if necessary, resources are available to change the system, set an achievable target at the desired level of performance and establish a timeframe for when actual performance must consistently operate at that level.

- If no resources are available, or if this area is not an organizational priority, set the target level low enough to where the current performance level can be achieved regularly.

Reference

[Results Washington](#)

The difference between targets and estimates

A *target* is a statement about what the organization intends to do, and its commitment of resources to do that. An *estimate* is a best guess about what future performance will achieve, regardless of the strategic intent and implementation of any changes.

If an organization sets a target at a level different from current performance capabilities, it implies that the organization will improve the process or adjust resources needed to accomplish the changes that will result in improved performance.

For instance, I can estimate how much I will weigh six months from now. If I don't do anything differently, my estimate of my future weight will be pretty much equal to my current weight. If I set a target to lose 20 pounds, however, that implies I will do something to change my process to achieve my desired weight (eat less, eat better, exercise more, etc.).

How performance measures relate to OFM budget processes

Performance measurement makes accountability possible. It attempts to answer a simple question: "Are we making progress towards achieving our targeted results?" A credible answer to this question is backed by evidence, which comes from performance measures.

Information about the effectiveness of a budget activity is important to gauge whether the investment is worth the cost. Analyzing performance can help agencies and budget analysts learn how to improve that performance and whether other strategies can contribute more toward statewide results.

OFM uses performance measure information at every stage of the budget process:

- **Strategic plans.** Strategic planning creates the foundation for all other management activities. Resources can't be properly allocated without goals, objectives, and priorities. Goals and objectives can't be achieved without assessing progress, that is, without measuring performance.
- **State priorities.** The Governor establishes the top priorities for their administration. OFM uses performance data as a criterion for assessing which activities are most effective at achieving the statewide goals that citizens want and should be the highest priority for investment.
- **Budget requests.** The Legislature wants all agencies' budget recommendations directly linked to their stated mission and program, quality, and productivity goals and objectives. "Consistent with this policy, agency budget proposals must include integration of performance measures that allow objective determination of an activity's success in achieving its goals." [RCW 43.88.090\(5\)](#). To carry out this policy, OFM requires agency budget requests to be linked to performance measures so budget analysts can understand what improvements to expect from a proposed investment of resources. OFM expects agency budget requests to be anchored in strategic plans and clearly support implementation of strategies and the achievement of performance targets.

- **Spending plans (allotments).** Allotments are detailed plans of the scheduled revenue and expenditures authorized in the enacted budget and related cash receipts and disbursements. Allotments must reflect the priorities in agency’s strategic plan. Performance measure targets show desired outputs and outcomes related to that plan. Information about the effectiveness of an activity is important to gauge whether the investment has proven worth the cost. Tracking actual performance against targets provides benefits like those in tracking actual expenditures against estimates. Measuring performance can help agencies identify successful strategies, identify which activities are not meeting objectives, and decide when to intervene to solve problems. After the budget is enacted, it is important for agencies to revisit the proposed performance measures and targets submitted as part of the Governor’s proposed budget and revise them as needed to ensure that they reflect the activities, funding and expectations of the enacted budget.
- **Activity inventory.** The activity inventory describes all activities funded in the agency budget. Activity descriptions tend to be better than program descriptions at revealing the nature and purpose of work performed by state government. The activity inventory is used in budget development to provide a citizen-oriented view of budget investments. Agencies should describe the expected results of each major activity and propose performance measures for activities. Agencies are required to report actual performance for each measure approved by OFM and tracked in the RPM system. Each activity does not need a unique measure; an agency may associate one measure with several activities.
- **Performance assessments.** OFM is required to conduct regular formal reviews of performance measures to determine whether the objectives and measurements submitted by agencies demonstrate progress toward the purpose of the activity and statewide priorities ([RCW 43.88.090\(4\)\(a\)](#)). These performance assessments include recommendations to agencies about how to improve the quality of performance measures, including alternative or additional measures. OFM performance staff also provides training and technical assistance to agencies on performance measurement and related topics.

References

[OFM activity guide](#)

[OFM strategic plan guidelines](#)

How Results Washington, OFM budget and strategic plan performance measures relate to each other

Measures in an agency’s strategic plan should be the handful of vital measures that the senior management team regularly reviews to monitor the progress of organizational strategies and performance. Occasionally, an agency’s strategic plan will include process or output measures that the agency believes are critical indicators of success.

Measures submitted to OFM in the budget activity inventory should be very similar to, or closely related to, measures in the agency’s strategic plan. OFM is primarily interested in relatively high-level outcomes, measures of efficiency, and, in some instances, measures of workload. If the OFM budget activities are structured properly, they should describe major systems and business processes the agency uses to achieve its mission. There should be at least one performance measure per activity, ideally an outcome measure.

Results Washington reports focus on statewide priorities and are designed to take a multi-agency and cross-goal perspective. An important part of Results Washington is that it requires agency directors and managers to clearly articulate how the agency activities will lead to results for customers and the public. Individual agency measures are expected to be part of a logic model that shows how agency activities and outputs (things it can control) connect to high-level outcomes (things it can influence.) Occasionally, Results Washington expands to include measures related to a new initiative, or when outcomes are unstable or not improving.

Ideally, an agency should develop a common set of core measures that it can use for all management and reporting purposes.

Reference

[Results Washington](#)

Reporting performance measure information

Agencies use the RPM system to define performance measures, link them to activities, and update tracking amounts. An agency can propose a new performance measure at any time. Opportune times to propose changes to measures include:

- Considering new performance measures when refining an agency's activity inventory
- When an agency is undertaking new strategic initiatives or submitting a budget request for additional resources
- To implement changes suggested during an OFM Performance Assessment review of an agency's activities and measures.
- Reviewing performance targets as part of the allotments process.

Agencies should consult with their [assigned budget analyst](#) and [Results Washington senior performance advisor](#) before finalizing new performance measures or making significant changes to existing performance measures. Analysts and senior performance advisors can help the agency better focus its measurement efforts, improve the credibility of agency performance measures, and anticipate reaction to changes in performance measures used in prior biennia. OFM budget analysts review and approve certain measure changes, so involving them in a conversation beforehand can help speed the process by allowing them to understand the rationale for new proposals.

Although many agencies rely on their budget staff to enter performance data in RPM, almost any agency staff can be given permission to enter performance data or release measurement data to OFM. Just fill out a permission slip for the designated staff showing the security role they will have for RPM (available online at: <http://bass.ofm.wa.gov/BASSPR/library/security.pdf>). Instructions on how to use the RPM system can be found in the budget system library at: <http://bass.ofm.wa.gov/BASSPR/library/RPMAgencyUserGuideFinal.pdf>.

When to report performance measure data

The more data points you have, the better information it provides. OFM prefers quarterly reporting to annual data for budget reporting. The performance measure system will also accommodate monthly, weekly and annual performance data.

Because variation is normal whenever anything is measured, it is difficult to tell a compelling story about achieving results with only three or four data points. This is because any change in the data may be due to random variation. Quarterly data require one or two complete biennia to see patterns.

When working with annual data, about a decade is needed. Infrequent measurement cycles have limited value for managers and planners because the data gets stale, and it takes too long to see if changes occur. For instance, Results Washington prefers the most current possible data and improvement plans to assess if strategies are working.

If an agency must use infrequent measurement cycles due to how data is collected, the best recourse is to report as many data points as possible to show performance over time. OFM's performance measure tracking system allows agencies to add historic data by adding a biennium, then choosing a previous period. This will create places to enter historic data.

Enter data for a performance measure in the quarter during which services were provided. Data is due within one month following the performance period. For quarterly data, this is by the end of the months of October, January, April or July. If data cannot be collected and reported within 30 days, the agency should include a footnote that describes the expected time lag to receive and report the data. Another approach to such lagged data is to enter estimates and preliminary actual amounts in the quarter when services are provided and indicate in the *Comments* field that the data are preliminary. When final data are available, revise the actual amounts and indicate in the *Comments* field that the data are final and the date when they were revised.

What is a logic model?

A logic model is a diagram of a process or system. Logic models have several uses.

- The model provides a convenient way to think about performance measures.
- Managers can use logic models to describe and analyze a business process.
- Models help create a *theory of causation* that can connect work within an organization's direct control (e.g., its processes or outputs) to high-level outcomes of that work, things over which the agency has little influence.

Although all logic models are basically the same, there are several varieties, including:

- "Supplier-input-process-output-customer" (SIPOC) model used to describe parts of a business process and develop possible performance measures.
- "So-That" logic model used to connect things that are within an agency's control (such as outputs) to outcomes or results that may be outside an agency's control.
- "Value chain", a combination of the SIPOC and So-That models.
- Maricopa County uses a simple logic model that connects activities to customer outcomes by having agencies fill in four blanks in a sentence.
- The Baldrige criteria for performance excellence are a type of logic model.

Almost all these logic models feature common elements that focus on an organization's work and connect work to outcomes.

- 1. What is the SIPOC logic model?** See "Where do we start if I want to develop performance measures?" page 4.
- 2. What is the "So-That" logic model?** Things that are easiest for an agency to measure (outputs and processes) do not tell a compelling story to an audience of decision makers or the public. However, the things that these audiences want to know – outcomes and results – are often beyond the organization's ability to control. Because so many intervening factors

impact results, most organizations can only hope to influence immediate and intermediate outcomes.

“So-That” logic models are used in the Results Washington process and elsewhere to establish a theory of causation that connects things an agency can control and measure (e.g., its products) to things it can influence (i.e., outcomes and results).

When properly done, this logic model allows reviewers to start at an intended outcome and “drill down” to measures that the organization can control and leverage to influence the intended results. It is also useful for communicating how basic outputs (widgets) contribute to results. Finally, analysts or managers can use this to think about possible performance measures for immediate, intermediate and ultimate outcomes.

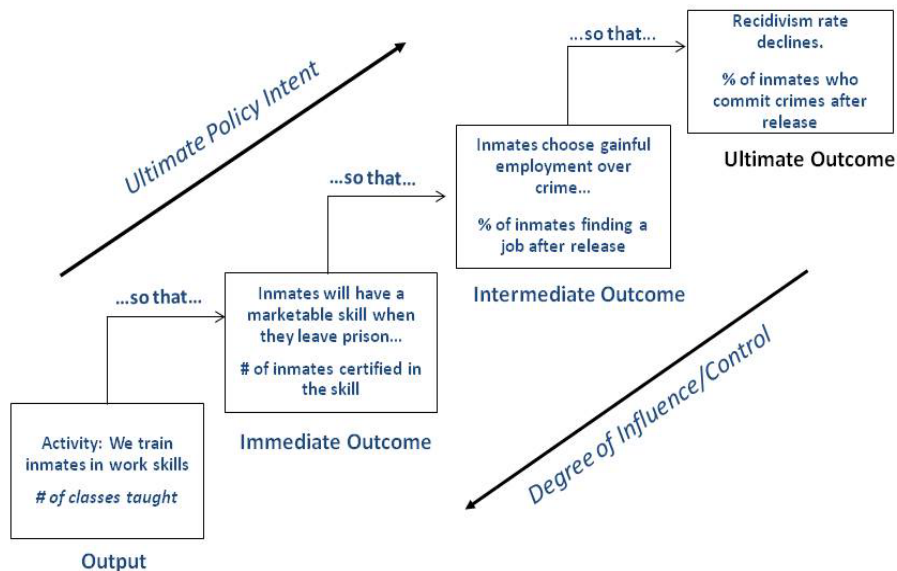
The basic model consists of a set of boxes connected by **so that** arrows. The analysis starts by writing part of the business process (outputs, process or inputs) in the first box, then asking, “Why do we do that? Why do we care about that? What do we want to happen because of that?”

The answer to these questions should be something along the lines of, “We do this thing **so that** something else happens.” Write the “something else” in the next box in the series and ask the question again.

Repeat this cycle – asking “Why do we care?” and getting “So that . . .” answers – until the final box is a statewide result or ultimate outcome.

After the So-That logic model is completed, the analyst can go back and write possible performance measures next to each step in the logic model.

Department of Corrections Logic Model



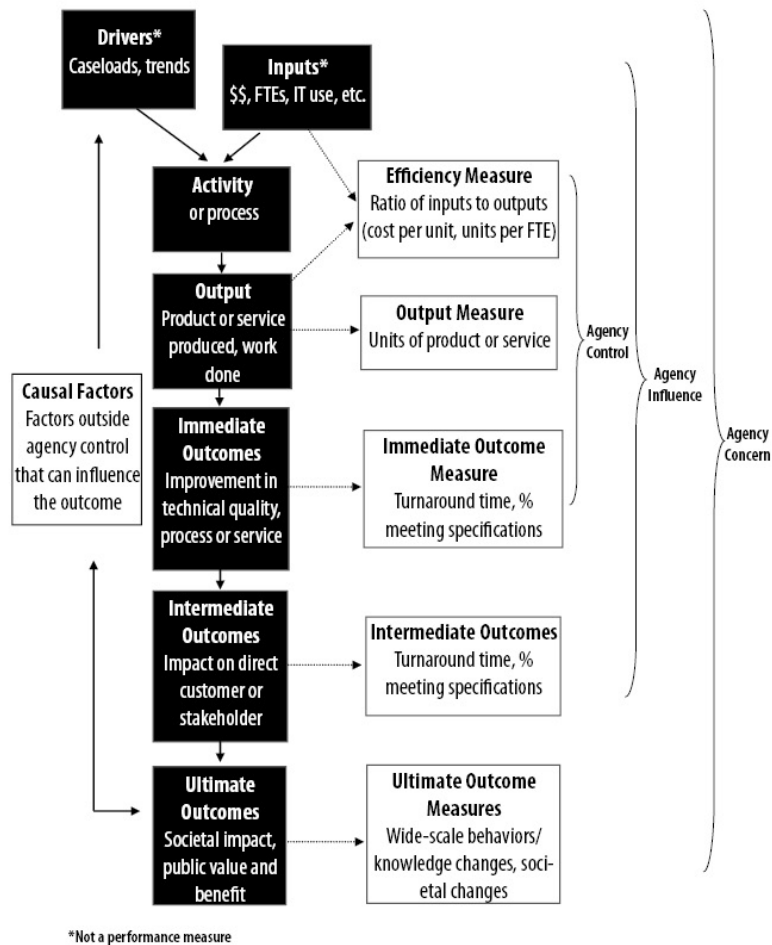
This doesn't have to be drawn, as the following text example shows:

- We want to increase the number of people who complete their application correctly the first time (input) **so that** . . .
- We can reduce the time it takes to process the application (process), **so that**
- We can increase the number of permits issued (output), **so that**
- We can reduce toxins entering the water table (immediate outcome), **so that**
- We can increase the number of salmon that successfully spawn in the stream (intermediate outcome), **so that**
- Salmon populations recover and are no longer endangered (ultimate outcome).

3. What is the value chain logic model?

The value chain is a model that shows linkages between budgeted inputs to an agency's activity and desired results. Agencies may find it useful in illustrating how the output or the immediate outcome of an activity contributes to higher-level outcomes.

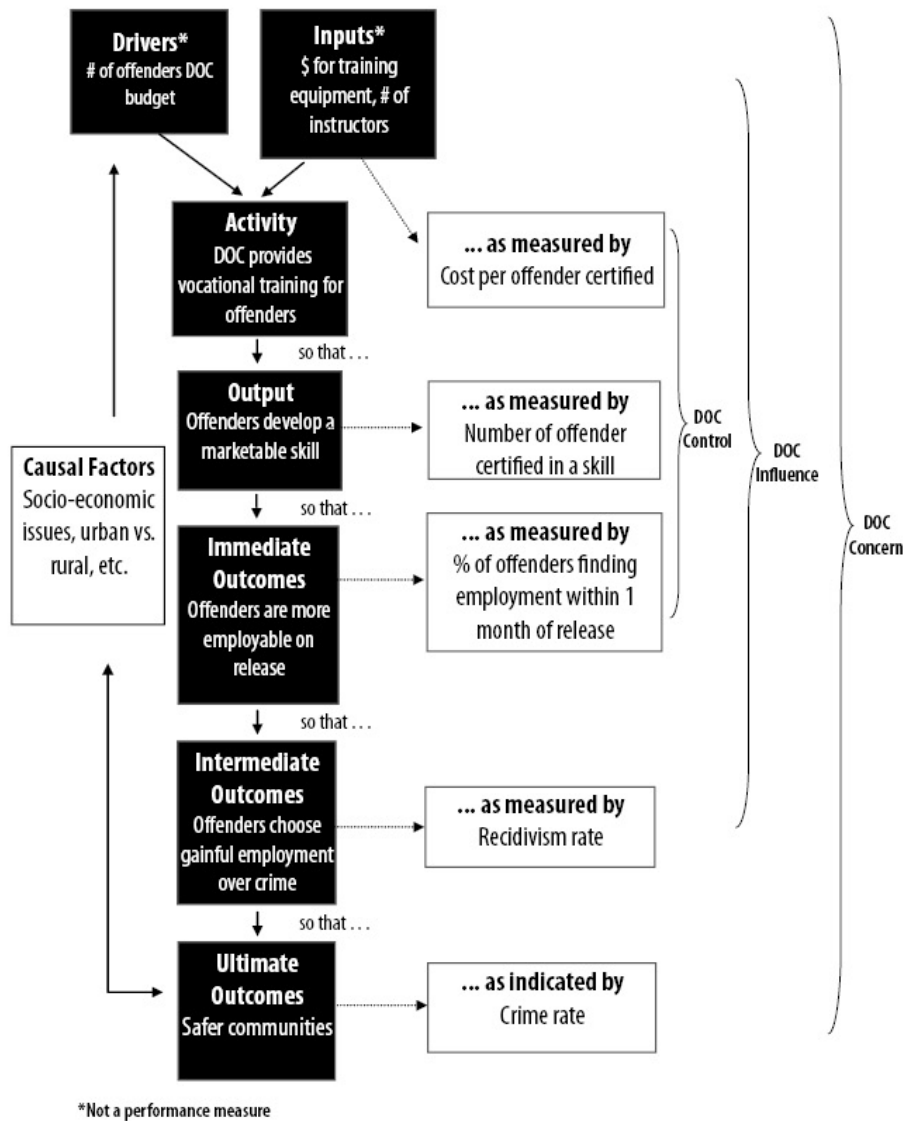
The value chain is very helpful in differentiating between the various levels of performance measures and demonstrating how they are related. It is also useful in showing the degree of control that the agency has at each level, and the impact of other factors on the outcomes.



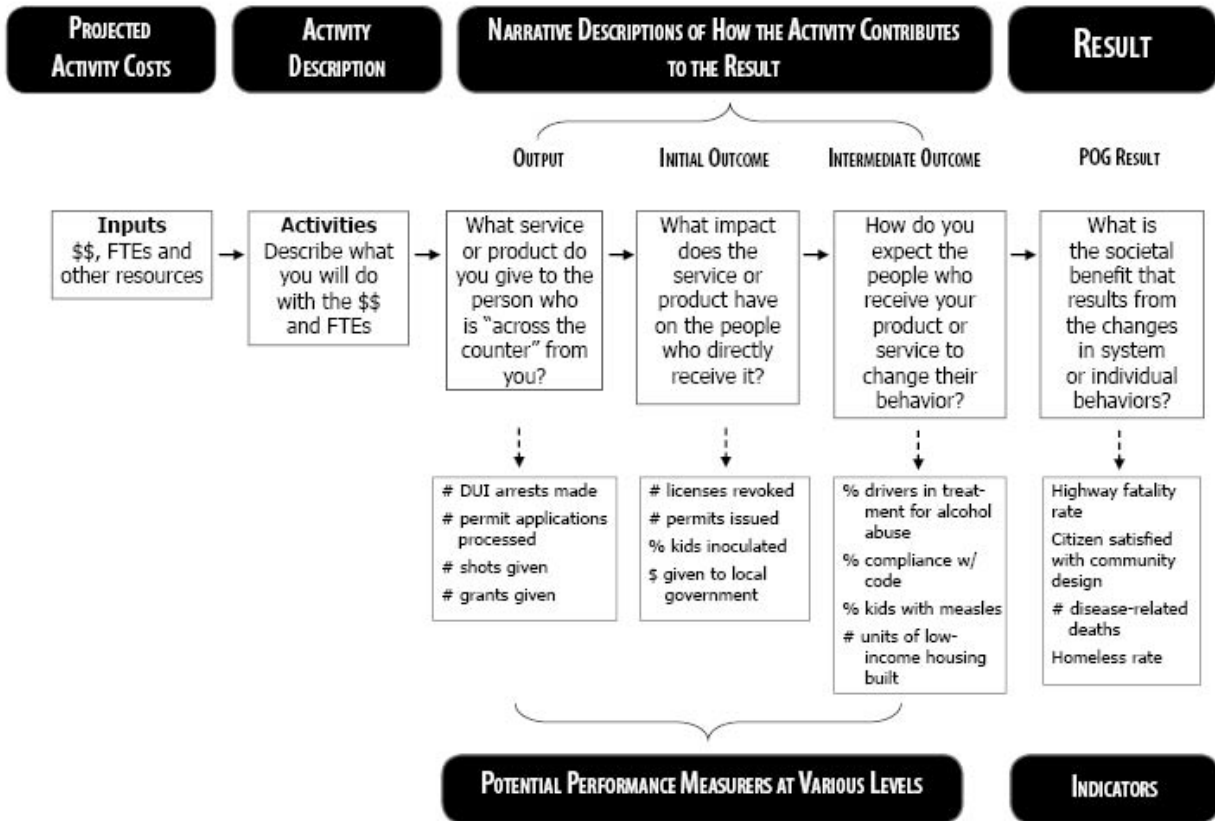
Example: Value chain for the Department of Corrections

The following example is intended to illustrate a value chain for DOC activity of providing vocational training to offenders. The ultimate outcome (recidivism rate, fewer offenders returning to prison) is clearly affected by many other factors, few of which are in the control of DOC. However, the value chain helps explain why the agency engages in that activity and how it leads to the desired result.

The example includes some *possible* measures for each link in the chain. Note that it is not possible or required to collect measures at every level for every activity. Managers must decide which measures to collect depending on the possible audience and their needs, availability of data, and usefulness of the measures. (See “How many performance measures should we have?” on page 6.)



Value-chain logic models can also be used horizontally, as in the following example:



4. How does Maricopa County use logic models?

Maricopa County, Arizona, uses a simple logic model. Each major activity in the county fills in four blanks in a sentence, known as a “result statement,” to describe the activity, its product and customers, and the results that customers want:

❶ The purpose of the _____ activity
 (activity name)
 ❷ is to provide _____
 (summary of services provided)
 ❸ to _____
 (specific customer or customer group)
 ❹ so they can _____.
 (results/benefits experienced by customers)

Managers in charge of the activity then develop four standard measures, related to the four elements in the results statement:

Result = performance that specific customers want from the product or service (from the purpose/results statement above)

Output = number of things delivered to customers this period

Demand = input measure, the number of units requested by customers during a period
Efficiency = unit cost per thing completed.

Example: Maricopa County medical examiners' result statement:

The purpose of Decedent Medical Examinations activity is to provide examination services as to the cause and manner of death for families of decedents so they can proceed with funeral and internment arrangements in a timely manner.

Medical examiner measures:

Result: % of cases closed within 45 days

Output: # of exams completed

Demand: # of exams required

Efficiency: \$ cost per exam completed.

5. What are the Baldrige criteria?

Baldrige refers to the Malcolm Baldrige National Quality Award established by the U.S. Congress in 1987. Applicants for the award prepare detailed assessments of their management systems, using criteria organized in seven categories that describe a process model:

- leadership
- strategic planning
- customer focus
- measurement, analysis and knowledge management
- workforce focus
- process management
- results

These criteria are used by the Washington state quality award in its independent review of state agency quality management, accountability and performance systems required by [RCW 43.17.390](#).

References

Baldrige National Quality Program (U.S. Dept. of Commerce) [Criteria for Performance Excellence](#)
Canada has been in the forefront of developing logic models for government agencies:
Mark Schacter, *Not a Tool Kit: Practitioners Guide to Measuring the Performance of Public Programs*: Institute on Governance, Ottawa, Canada (2002), [page 37](#).