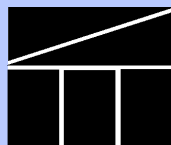


Commonwealth of Virginia

Agency Productivity Measure  
Guidebook



**Department of Planning and Budget**  
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# Agency Productivity Measure Guidebook

## Instructions and Tips for Developing and Tracking Productivity Measures in State Agencies

The purpose of this guidebook is to communicate productivity measurement requirements for Virginia state agencies and to provide tips, suggestions, and examples for developing and tracking productivity measures. These instructions apply to all executive branch agencies other than institutions of higher education.

### **WHY MEASURE PRODUCTIVITY?**

Virginia Performs, the Commonwealth's performance leadership and accountability system, has been recognized as an important contributor to Virginia's status as a 'best managed' state. To build on that success, the Commonwealth's Performance Management Group recommended that state agencies begin to develop and use productivity measures in FY 2009. Productivity measures represent the third component, along with agency key objectives and measures and the Management Scorecard, of Virginia's outcome-driven performance management system. The objective of productivity measurement is for agencies to focus attention on their use of resources by measuring how productive they are and finding ways to optimize resource use and further increase efficiency in their operations, while maintaining or improving results.

### **HOW IS PRODUCTIVITY DEFINED?**

Productivity is a measure of the efficiency and effectiveness of an organization in serving its customers. More specifically, it provides a basis for assessing how specified resources are managed to produce acceptable outputs.

Productivity is a ratio of a volume of output to a volume of input. A commonly used productivity formula is *output divided by input*. However, the ratio can also be set up as *input divided by output*.

- *Fictional Example - output divided by input:* 350,000 claims adjusted (output) ÷ 234 claims adjusters (input) = 1,496 claims adjusted per adjuster
- *Fictional Example - input divided by output:* \$967,000 total cost (input) to provide training to prevent construction worker injuries ÷ 5,000 construction workers who worked injury-free (outcome) = \$193.40 per worker

Broadly, productivity measures can be classified as single factor productivity measures (relating a measure of output to a *single measure of input* such as labor costs) or multifactor productivity measures (relating a measure of output to a *bundle of inputs* such as labor and capital).

The major categories of inputs are labor, materials, and capital in the form of buildings, machines, and computer systems. Typical measures of these inputs include cost and time. That is, one can measure the labor hours (or Full Time Equivalents - FTEs) directly associated with producing a certain output or the cost of those labor hours. Unless otherwise approved, costs should be used for measuring the value of the inputs used in calculating reported productivity measures.

The most common type of output that is used in calculating productivity is the final output produced from a process (e.g., # of inspections performed). Agencies may also choose to use outcomes (e.g., # of sites passing safety inspections; # of jobs created) in their productivity measures instead of outputs.

### EXAMPLES OF PRODUCTIVITY MEASURES

- ❑ Unit cost of issuing site licenses (total costs required to issue the licenses ÷ # of site licenses issued)
- ❑ Unit cost of screening applications (total costs required for screening the applications ÷ # of applications screened)
- ❑ Unit cost of job creation (labor cost of employees involved in job creation activities ÷ # of jobs created)
- ❑ Percentage of work time spent on providing value-added services to other agencies ( $\frac{\text{\# of hours spent on value-added work}}{\text{total number of hours worked}} \times 100$ )

### VIRGINIA STATE AGENCY EXAMPLES

- ❑ **Department of Motor Vehicles (DMV):** Unit cost of processing vehicle registration renewals (total costs required to process renewals ÷ # of vehicle registration renewals processed)
- ❑ **Department of Medical Assistance Services (DMAS):** Unit cost of processing a claim (total costs required to process claims ÷ # of claims processed)
- ❑ **Department of Mines, Minerals and Energy (DMME):** Cost of activities to prevent permitted sites from having off-site environmental impacts (total prevention-oriented costs ÷ # of permitted sites)

The DMV and DMAS productivity measures can be broken down further, as follows:

- ❑ **DMV:** Unit cost of processing vehicle registration renewals by renewal method; i.e., in-person renewals at customer service centers, Internet renewals, mail renewals
- ❑ **DMAS:** Unit cost of processing a claim by submission method; i.e., paper, electronic, web-based

The breakdowns reveal whether productivity differences exist in registration renewal or claims submission methods. Thus, the measures provide valuable input for the agencies as they make decisions about where to invest efficiency improvement dollars.

### WHAT ARE AGENCIES REQUIRED TO DO?

Requirements for state agencies regarding productivity measurement are as follows:

- ❑ Assign a staff resource to work with the Cabinet and the agency's Department of Planning & Budget (DPB) analyst to develop a productivity measure for your agency.
- ❑ Develop one productivity measure. Agencies have the option of developing more than one measure, but **the emphasis should be on doing one measure well.**
- ❑ The measure should be tied to the agency's key processes, key measures, or key objectives. Key processes are those that produce the agency's most important services or products for customers. Therefore, they have a significant impact on the agency's customers, budget, or

performance outcomes. The productivity measure should not be for internal agency processes such as payroll processing.

- ❑ The measure should be cost-related (i.e., cost per unit). However, other types of productivity measures will be considered (e.g., the input could represent a level of effort such as hours or the number of people). Agency personnel should discuss alternative types of productivity measures with their DPB budget analysts.
- ❑ Where possible, the measurement data should be reported quarterly.

### **IMPORTANT DATES**

- ❑ By June 30, 2008, a half-day training class on productivity measurement will be conducted for the agency staff resources assigned to develop productivity measures.
- ❑ By August 1, 2008, agencies must enter in the Virginia Performs website their proposed productivity measures. The measures will not be available to the public at this time.
- ❑ During August 2008, DPB, working in consultation with Cabinet secretaries, will provide feedback to agencies on their productivity measures. When necessary, agencies will resubmit their productivity measures in the Virginia Performs website.
- ❑ During September 2008, the Governor's office will review and approve agency productivity measures.
- ❑ By October 1, 2008, approved agency productivity measures will be posted for public access on the Virginia Performs website.
- ❑ By October 1, 2008, agencies will begin collecting data on approved productivity measures.
- ❑ By January 31, 2009, agencies must publish their first productivity measure results on the Virginia Performs website. The results should be for the second quarter of FY 2009 for those agencies that are doing quarterly reporting.

### **HOW SHOULD AGENCIES DEVELOP PRODUCTIVITY MEASURES?**

Some agencies may already have well-developed productivity measures in place. In that case, review the measures and determine which one has the strongest link to a performance outcome defined in a key measure or represents a process that comprises a substantial part of the agency's budget. Select the measure (or measures) you wish to report and develop the required measurement information, as noted in steps 5 and 6 below.

Certain agencies, particularly those that provide services rather than easily quantifiable outputs, might find the development of productivity measures challenging. We encourage all agencies to share ideas with each other, conduct research, or consult with DPB to facilitate the development of the productivity measures.

Consider the following steps as general guidelines and ideas for developing your agency's productivity measure. Additional details about the guidelines will be provided in a productivity measurement training class for agencies that will be scheduled prior to June 30, 2008.

1. Review the following agency information:
  - a. The productivity section of the Executive Progress Report in your strategic plan
  - b. The product and service list (outputs) in your strategic plan
  - c. Key objectives and key measures outlined in your strategic plan

- d. Critical agency processes identified in Phase I of the Armics Internal Control Program
2. Consider which agency processes have the greatest impact on important performance outcomes defined in your key measures or comprise a substantial part of your agency's budget. What outputs do these processes produce? Can you quantify the outputs? Can you determine the cost of producing the outputs?
3. Determine where efficiency is most critical in your agency. Where do you most need to use resources wisely to produce quality outputs or desired performance outcomes? Can you quantify the resources consumed to produce the outputs that ultimately impact performance outcomes defined in your key measures?
4. Where appropriate, research what other states or similar private sector organizations use to measure productivity.
5. Once you have decided where to focus, select a measure that substantially impacts your agency's operations. Set up the productivity formula and develop definitions for the outputs and inputs you choose. For example, you may decide to measure the unit cost of issuing professional licenses.
  - a. Define the output. What is included/excluded from "professional licenses?" Does it include all types of licenses issued from your agency or only some of the licenses? Does it only include correctly issued licenses, which fits the definition of productivity (i.e., how specified resources are managed to produce acceptable outputs)? Subtract the number of incorrect items produced from the total produced.
  - b. Define the input. Where possible, use cost as the input. What costs will you include, labor costs only or total costs?
6. Develop additional information required for the measure. The measurement information required for productivity measures is the same as what is required for performance measures in your strategic plan.
  - a. Measure – For example, unit cost of issuing professional licenses.
  - b. Measure class – Productivity
  - c. Measure type – Grayed out
  - d. Measure frequency – Quarterly, if possible.
  - e. Data source and calculation method – Agencies will record formula calculations, definitions, and the source of the data.
  - f. Target – The desired level of productivity (if determined).

A comments field will be available in Virginia Performs to provide additional information about the measure that can help to ensure people have the correct understanding of the measure.

7. Gather the input and output data for the measure and calculate the productivity. Will the measure, as defined, help your agency monitor productivity in a meaningful way? Will the measure point the way for making operational improvements in your agency?

8. Enter the productivity measure into the Virginia Performs website work area for DPB and Cabinet review. *Details concerning productivity measurement submission will be forthcoming.*
9. Secure approvals from the Governor's office (via DPB).
10. Report and review your productivity measure at regular intervals to identify efficiency improvements and opportunities.

### **TIPS & SUGGESTIONS**

- ❑ When designing a measure, it is important to understand the key cost drivers and impacts of the measure as well as the degree to which your agency can influence, control or manage the drivers.
- ❑ If appropriate, provide an overall productivity measure and break it down by type (e.g., delivery channel, submission channel, geographic location, demographic categories).
- ❑ If your agency has done activity-based costing, you may already have useful information for the input portion of the productivity measure.
- ❑ Being more productive does not always mean cutting costs. Your agency might choose to measure the length of time it takes to provide a service to a citizen and then seek ways to streamline the service process in order to operate more efficiently.
- ❑ If you decide to compare your productivity measurement results to other states or organizations, exercise caution because other states may have different rules and formulas. You must be able to explain the measure to ensure no improper comparisons are made.

### **SUMMARY**

Although measuring productivity in state government can be difficult, the information agencies obtain can be vital in communicating to the public that we are using resources as wisely as possible. Productivity measures help agencies identify what they can do to use resources better, to enhance results, and to improve service. Productivity measures can help people understand how much things cost. Through these measures, agencies can demonstrate that they care about how they spend their resources and want to measure it so that they can see if they are operating efficiently and effectively.

### **ACKNOWLEDGEMENTS**

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