

oppaga

PB² Commentary



January 2001

Report No. 01-05

Florida's Unit Cost Initiative Shows Promise, But Needs Further Development

at a glance

As part of its initiative to use performance-based program budgeting to improve program efficiency, the Florida Legislature requires agencies to report their unit costs. Unit costs facilitate reasoning because it is often easier to gauge appropriateness of the cost of one item than it is for the lot.

Unit costs are the costs of producing an output or outcome. These costs can be calculated in a number of ways, the most common of which are the

- direct costs of producing one unit of output and
- allocated costs, using a methodology that assigns indirect or overhead costs to each unit.

Direct, indirect, and allocated costs provide important information for managers and policy makers, and the type of cost data used depends on the purpose of the analysis. Direct costs that are separated from indirect costs are most useful for budgeting purposes and privatization decisions. However, cost comparisons are best done with allocated costs.

The categories that agencies are using to report costs are useful for budgetary purposes. However, the precision of agency cost estimates will vary. The estimates of agencies that structure their organizations around business practices will be more accurate than the cost estimates of agencies that structure their organizations in other ways.

In some programs, problems with the manner in which the outputs have been defined may limit the accuracy and usefulness of these unit costs. The extent to which this occurs needs to be determined by analyzing each agency's long-term program plan.

Florida's Unit Cost Requirements

Although performance-based program budgeting has improved information about the effectiveness of state programs, it has provided only limited information about the efficiency of these programs. To improve the information it receives about program efficiency, the 1999 Legislature required agencies to report their unit costs of providing services such as the average cost of providing institutional services to a person with developmental disabilities. Agencies are to report their unit costs in their long-range program plans. The Governor's Office and House and Senate appropriations committees have prepared instructions for how agencies are to develop these plans including how they report their unit costs.

Unit costs can provide legislators and managers with useful information. Legislators can use unit cost information to assess whether agencies are improving their efficiency over time or how their efficiency

compares with that of other entities providing similar services. They also can use unit costs to predict how changes in the demand for services will affect agency budgets or to make privatization decisions.

Managers can also use unit cost information to assess their program's efficiency. In addition, they can use more detailed cost information to learn how changes in operations would affect costs and to identify activities that need reengineering.

Unit Costs Can Be Calculated in Different Ways

Unit costs are the costs of producing an output or outcome, such as the cost to vaccinate a child (an output) or the cost to reduce air pollution to a designated level (an outcome).¹ They can be calculated in a number of ways, the most common of which are

- direct costs and
- allocated costs.

Direct costs

Direct or variable costs are the costs most readily ascribable to the production of a service or product. Direct costs are outlays for the labor and materials that vary with fluctuations in the number of outputs being produced. These are the costs that would likely be eliminated if the service were no longer provided. For example, if the state discontinued the certification of police agencies, the salaries, benefits, and expenses of the personnel doing the certification would be eliminated.

¹ Section 216.023(4)(j) provides that Florida agencies develop unit costs for their outputs.

Allocated costs

Allocated costs include both the direct costs of delivering a service and some portion of an agency's indirect costs that support the service.

Indirect costs are costs that cannot readily be associated with the production of an end product or service, but provide support for those activities. These costs are often referred to as overhead costs and can be classified as general overhead costs and program-specific overhead costs.

- General overhead costs commonly include the costs of providing executive direction, legal services, and administrative support services such as personnel, finance, and budgeting. In addition, they often include the cost of shared space, equipment, or services. For example, the costs of data centers that serve more than one program are often treated as general overhead costs because they cannot accurately be attributed to the various activities the data center supports.
- Program-specific overhead costs include the costs of program direction, program monitoring, rule making, and other activities that are essential to operate the program, but are not directly associated with producing a unit of output or outcome.

If a service or activity is eliminated, general and program-specific overhead costs will generally remain, although a portion of them may be eliminated if the service or activity represents a substantial proportion of an agency's total resources.

- For example, if the Department of Management Services contracts out all custodial activities, the direct costs of providing salaries and benefits to state employees for cleaning buildings will be eliminated. However, the program-specific overhead costs comprising the salary, benefits, and expenses of the individual

overseeing building maintenance activities, including custodial services, will usually remain. In addition, if the number of positions being privatized represents a small proportion of the agency's workforce, the general overhead costs of operating a personnel department will also remain. But if these positions represent half of the agency's workforce, some portion of the agency's personnel costs can also be eliminated.

In allocated costs, overhead costs are spread to different types of output through some type of allocation methodology. Common allocation methods include the cost per unit of direct labor, the cost per square foot of space taken up by program staff and materials, or the cost of unit of usage, such as miles driven, for equipment. The use of different methods for allocating indirect costs will result in different estimates of how much it costs to produce a product or service.

Different Types of Unit Costs Serve Different Purposes

Unit costs analyses usually serve one of two purposes:

- determining the relative efficiencies of operations over time or between entities and
- determining the potential effects budget decisions to increase, eliminate, or privatize services will have on operating costs.

The choice of using direct costs or allocated unit costs depends on the purpose of the analysis.

Allocated unit costs can help assess efficiency

Unit costs can be used to determine the relative efficiency of government operations by comparing costs over time or between entities that provide similar services. To assess overall operating efficiency, analysts should use allocated costs. This will help ensure that any changes in the ratio of overhead to direct costs due to changes in technology, organization, or cost classifications do not affect the cost comparison.

- For example, if a data center acquires new technology that enables program staff to reduce the amount of paperwork they handle, the direct costs of producing an activity will decrease because the people who formerly processed the paperwork are no longer needed. However, overhead costs may increase because the data center may need more programmers to maintain the new technology. To determine whether the new technology actually decreased total costs, an analyst would need to analyze allocated unit costs. If these allocated unit costs decrease, the new technology has improved overall efficiency and resulted in cost-savings, even though the ratio of overhead to direct costs has increased.

Direct and indirect unit costs can be useful for budget decisions

Unit costs can help agencies and the Legislature make budget decisions to increase, decrease, or eliminate services or activities by helping them balance the value these services provide against the cost of providing each service.

- For example, the Legislature may decide to retain a highly valued service even though the unit cost of providing this service is high. Conversely, the Legislature may

eliminate a low-cost service that is not highly valued.

To use unit costs to make budget decisions, analysts need to focus primarily on direct costs, because those are the most likely costs that would be increased, decreased, or eliminated by the decision.

However, if the increase or decrease in services affects a significant proportion of an agency's operations, some overhead costs may be increased or reduced. The proportion of these costs that could be eliminated would depend on factors such as the size and organizational structure of the agency. Thus, determining the potential effect of service increases or decreases on an agency's overhead costs must be made on a case-by-case basis.

Direct and indirect unit costs can be useful for privatization decisions

Agencies and the Legislature can sometimes use unit costs to make privatization decisions. To determine the potential effect that privatizing program services is likely to have on operating costs, analysts should focus on direct costs and then determine what impact the privatization will have on indirect costs. In addition, make-or-buy decisions must factor in other variables, including contract monitoring costs and the salvage value of unneeded equipment. Because these factors vary from program to program, these decisions also have to be made on a case-by-case basis.

However, even though agencies may have reasonably accurate unit costs, their costs may not be comparable to the prices private companies charge for their services.

- For example, a private sector company performing a certain laboratory test may charge extra for a test that takes longer than a certain amount of time. This would complicate the task of comparing the private sector cost to the state's unit costs of

performing the same type of test because additional information about the length of time state laboratory workers spend performing these tests would be needed. Since most state agencies do not track how staff use their time, this information likely would not be available.

In these cases, the best way to determine whether contracting for services would reduce operating costs may be to develop a detailed description of the work to be performed and to have the agency and private companies provide bids on how much they would charge to perform the work.

Current Methods for Calculating Unit Costs Need Improvement ———

The unit costs agencies are currently reporting in their long-range program plans are at best estimates of their direct costs for three reasons.

- Although the overall structure the Governor's Office and House and Senate appropriations committees have proposed for reporting unit costs is good, not all agencies are reporting similar costs in a similar manner.
- In some programs, problems with the manner in which the outputs have been defined may limit the accuracy and usefulness of these unit costs.
- Agencies cannot easily use existing information from the accounting system or personnel system to develop good units costs.

Each of these problems is more fully discussed below.

Cost reporting structure reasonable, but agencies report costs differently

In the instructions for the development of long-range program plans, the Governor's Office and House and Senate appropriations committees require agencies to report costs under several different categories. These include executive direction and support services, information technology (if provided by a stand-alone data center), non-operating (capital outlay), and program services.

This is a reasonable way of breaking out costs for budgeting purposes because it enables analysts to readily assess the likely effect budgetary decisions to increase or decrease service or activity outputs will have on operating costs.² However, analysts will need additional information to assess the effect of improved technology on service delivery costs or to determine the effect of service increases or decreases on overhead costs.

However, agencies are not handling their program-specific overhead costs in a uniform manner. Some agencies are showing these costs separately from direct costs, while others are allocating them as direct costs. If agencies allocate these overhead costs to direct unit costs, the Legislature will not be able to readily ascertain the likely effect changes in activity levels will have on the budget.

Moreover, the separation of direct and indirect costs may lead analysts to compare the ratio these costs between agencies or to reduce that ratio by decreasing overhead costs. Due to differences in agency organization or classifications of operating costs, such ratios are not good indicators of operating efficiency. In addition, trying to decrease overhead costs can

² Because direct costs do not always vary perfectly with volume of output, the actual impact of reducing or increasing outputs may not be equivalent to the unit costs for those outputs. For example, if a person can handle between 50 and 75 cases per month and actual caseload is 60, an increase caseload to 70 will not increase total operating costs.

lead agencies to decentralize activities that can more efficiently be centralized. This will result in greater inefficiency and increase total costs.

In some programs, the manner in which outputs are defined is problematic

A major problem with some of the unit costs in agencies' long-range program plans is that the costs are assigned not to the units of service agencies produce, but to subunits of activities that make up the services. This type of activity-based costing can be very useful to managers because it allows them to focus on the manner in which services are delivered and to look for ways of reengineering activities to reduce service costs. However, it is less useful for legislative budgeting purposes because it does not identify cost drivers such as demand for services.

Moreover, in an effort to limit the number of activity costs in long-range program plans, the Governor's Office and legislative appropriations committees have instructed agencies to list one output for each activity, although some activities have more than one output.

- For example, within the Department of Revenue, the output for taxpayer education and assistance is the number of customers receiving assistance. However, according to the agency's long-range program plan, this measure does not count outputs associated with DOR-initiated educational efforts, such as publishing brochures or maintaining its web page. Consequently, the costs associated with these activities are attributed to assisting taxpayers who request help. This understates the number of outputs related to customer assistance and overstates the direct costs of providing assistance to individual customers.
- In another example, the long-range program plan for the Department of Children and Families' Community Mental

Health Program combines diverse activities into summary outputs. For example, services such as individual counseling, group counseling, and medication are combined into the output *outpatient services*, while residential treatment services of three different levels of intensity are combined into the output *residential services*. Due to differences in units of measurement for the more discrete outputs, hours for counseling or doses for medications, the plan measures these outputs by the number of people they serve. However, this is a problematic unit of output for two reasons.

1. The mental health status of individuals served by the outputs varies significantly, with individuals with severe mental illnesses receiving more service outputs than individuals with mental health crises. Thus, a change in case mix can appear to cause a change in unit costs, even though the cost of the actual services delivered remains the same.
2. Some individuals are served by more than one output, making it impossible to sum the number of people receiving the outputs to determine cost per individual served.

These problems limit the usefulness of these outputs in predicting future program costs or in comparing the cost of community services to the cost of other programs that serve individuals with mental illnesses, such as mental health institutions. A better unit cost measurement system would separate the costs associated with serving different types of clients and would show costs for specified time periods, such as an average cost per client per month or day.

Agencies cannot easily use information systems to develop unit costs

A major limitation to Florida's unit cost initiative is that the state's existing systems for accounting for state expenditures and personnel assignments do not support the development of unit costs for program activities. According to instructions for the long-range program plans, agencies are to divide their expenditures budgets for each activity by the number of outputs produced by the activity. However, the current state accounting systems are designed to capture expenditures by organizational entity and object of expenditure rather than by activity or unit of output. Consequently, agencies must estimate how much they spend on these activities.

The accuracy of these estimates depends on how closely agency organizational structures match the activities in their long-range program plans.

- For example, Florida Department of Law Enforcement investigative and laboratory staff generally are organized by type of investigations or analyses they perform. Thus, the activities in the long-range program plan are carried out mostly by staff in different organizational units. This enables budget staff to use the Florida Financial Management Information System to determine the salaries, benefits, and expenses of those units, which reasonably match its expenditures in carrying out its activities. This enables FDLE budget staff to make fairly precise estimates of the direct unit costs of those activities.

However, in other departments, staff are not always organized by the activities in their long-range program plans.

- For example, in the Department of Agriculture's Division of Forestry, forestry staff perform more than one of the activities in the long-range program plan. Consequently, allocating staff time to the outputs "acres of land managed" and "number of visitors served" is likely to be based on staff memory of how they spent their time during the 1999-2000 fiscal year. At best, this makes their unit costs estimates for these activities an educated guess.

Recommendations

The identification of unit costs is an important new initiative in the performance-based program budgeting process that can enable the Legislature to assess the efficiency of public programs. Currently the system is under development, and it is expected to improve with the implementation of the new state accounting system.

The types of unit costs that agencies are asked to develop should depend on how the Legislature intends to use unit cost information. If the Legislature is going to build the budget using unit costs, the different categories in which agencies are currently required to report costs are reasonable. However, if the Legislature wants to track costs over time or compare costs of different entities, it should ask agencies to allocate their overhead costs to their units of output.

If the Legislature wants to determine whether it would be cost-effective to outsource an activity, it needs to look at direct costs. It then needs to request the agency to estimate how overhead costs would be affected by the outsourcing and how much it would cost the agency to administer the contract. Each

decision to outsource an activity should be supported by a separate make-or-buy analysis.

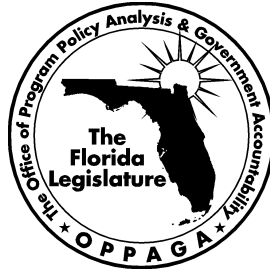
To ensure that the unit cost initiative provides useful information, the Governor's Office should work with legislative committees, OPPAGA, and state agencies to determine the most appropriate unit of outputs to put into the long-range program plans. This will require a separate analysis of each plan's activities. To avoid overloading the plans with too much detail, we suggest that the plans focus on outputs that are cost drivers, such as number of clients served in a given time period. Agencies should track more detailed activity costs internally and provide this information to the Legislature upon request.

To ensure that the new state accounting system supports both legislative and agency needs for unit cost information, the Legislature should carefully monitor development of the new system. This monitoring should ensure that activity costs could be accumulated into cost drivers for each state program. This will enable the Legislature to use cost drivers for budgeting decisions as well as to obtain more detailed cost information when needed to look for potential reengineering projects or to make privatization decisions.

OPPAGA will assist the Legislature in its analysis of unit costs and the use of these costs in making decisions about public programs.

The Florida Legislature

Office of Program Policy Analysis and Government Accountability



Visit [Florida Monitor](http://www.oppaga.state.fl.us), OPPAGA's online service. See <http://www.oppaga.state.fl.us>. This site monitors the performance and accountability of Florida government by making OPPAGA's four primary products available online.

- [OPPAGA publications and contracted reviews](#), such as policy analyses and performance reviews, assess the efficiency and effectiveness of state policies and programs and recommend improvements for Florida government.
- [Performance-based program budgeting \(PB²\) reports and information](#) offer a variety of tools. Program evaluation and justification reviews assess state programs operating under performance-based program budgeting. Also offered are performance measures information and our assessments of measures.
- [Florida Government Accountability Report \(FGAR\)](#) is an Internet encyclopedia of Florida state government. FGAR offers concise information about state programs, policy issues, and performance. Check out the ratings of the accountability systems of 13 state programs.
- [Best Financial Management Practice Reviews for Florida school districts](#). OPPAGA and the Auditor General jointly conduct reviews to determine if a school district is using best financial management practices to help school districts meet the challenge of educating their students in a cost-efficient manner.

Subscribe to OPPAGA's electronic newsletter, [Florida Monitor Weekly](#), a free source for brief e-mail announcements of research reports, conferences, and other resources of interest for Florida's policy research and program evaluation community.

OPPAGA provides objective, independent, professional analyses of state policies and services to assist the Florida Legislature in decision making, to ensure government accountability, and to recommend the best use of public resources. This project was conducted in accordance with applicable evaluation standards. Copies of this report in print or alternate accessible format may be obtained by telephone (850/488-0021 or 800/531-2477), by FAX (850/487-3804), in person, or by mail (OPPAGA Report Production, Claude Pepper Building, Room 312, 111 W. Madison St., Tallahassee, FL 32399-1475).

Florida Monitor: <http://www.oppaga.state.fl.us/>

Project supervised by Gary VanLandingham (850/487-0578)

Project conducted by Martha Wellman (850/487-2977)

John W. Turcotte, OPPAGA Director