

On Cost Analysis Comparisons: Government In-house Provision vs. Contracting Out

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Introduction

Most managers have no idea what their products and services really cost. At best, conventional cost accounting is marginally relevant to decisions about operations and management. At worst, it distorts reality and causes dysfunctional decisions.¹

Kehoe et al.

Activity-based Management in Government

Due to fiscal constraints and the opposition to new taxes, state governments are increasingly looking for cost-efficient and -effective ways to provide public services and products.² Contracting out, the most pervasive form of privatization,³ is today one such well-established way to provide governmental services.

The rationale for contracting out state government services is primarily cost savings. But there are other reasons as well. These include managerial flexibility, service quality, and speedy implementation.⁴

All states use contracting out for a wide-range of services, to a lesser or greater degree. In a 2002 survey conducted by the Council of State Governments, 12 states were found to contract out most often.⁵ These states included Arizona, Connecticut, Indiana, Massachusetts, Minnesota, Missouri, North Carolina, Oklahoma, Virginia, Washington, Wisconsin, and Wyoming.⁶

In order to make informed decisions about whether to provide a service in-house or contract out, state government officials must analyze or compare costs in a valid way. To do this, state governments must establish structured and accurate cost analysis methods or models. One generally accepted approach is activity-based costing.

In this brief paper, activity-based costing (ABC) will be examined as a tool for determining whether cost savings will result from contracting out vs. in-house provision of governmental services. The meaning and importance of ABC, therefore, will be discussed initially. Next, a discussion comparing costs between in-house provision and contracting out will be examined. Finally, some common mistakes associated with such cost comparisons will be touched upon.

Thus one aim of this paper is to provide a succinct discussion of *why* valid cost analysis is important to public decision making with regard to using in-house (government) or

contract (private) service provision. Another intent is to provide a concise discussion of *how* to compare costs between in-house and contracted out services.

Activity-based Costing

Research shows that most governments, especially state governments, have little or no knowledge (or data) of how much it costs, for example, to inspect an elderly residential facility, patch up a road surface, or counsel a troubled student. Indeed, the full and accurate costs of providing state governmental services is generally unknown since most states do not use accounting systems to capture “real” costs. Traditional accounting methods, which are typically used by state agencies and departments, only give the costs associated with broad categories such as “personnel,” “supplies and equipment,” and other such “line-item” expenditures. These agency-wide or programmatic costs do not reflect what it costs to deliver a distinct service unit or activity. As Governor Mark Sanford of South Carolina has remarked, “These expenditures reveal little about the actual activities that the people of South Carolina are purchasing or the benefits that they are receiving for their tax dollars.” Thus, without clear cut and detailed activity data and associated costs, public administrators and officials are in the dark as to the true costs of governmental services or products.

Further, without full cost accounting data, it is difficult or impossible to answer such questions as follows:

- Is this state governmental service (activity) of good value? Is it cost-efficient and –effective?
- Are the costs associated with this service competitive? In other words, can this service be provided by the private sector (contracted out) cheaper?
- Is this service even desirable or needed by the public (stakeholders)?

Activity-based costing (ABC) is the generally acknowledged approach to pin down the *full* costs—direct and indirect or overhead—associated with delivering a public service or product. ABC is defined as “an accounting method(s) that identifies, describes, assigns costs to, and otherwise details the activities of an organizational unit.”⁷ Sometimes alternately called a “full-cost accounting system,” ABC defines a unit of work, its inputs (resources) and outputs (outcomes or results), and all related costs, usually expressed as “cost per unit data.”

**Figure 1. Traditional vs. Activity Accounting Approaches
--Tax Processing Division--**

Traditional Line Item Accounting		Activity-based Costing	
Salaries	\$500,000	Prepare work plans	\$30,000
Telecommunications	100,000	Facilities and personnel planning	30,000
Enforcement expenses	50,000	Mail receipt and sorting	50,000

Facilities	30,000	Document and data preparation	180,000
Travel	20,000	Data entry	40,000
		Document and security control	130,000
		Data reconciliation	90,000
		Taxpayer file maintenance	110,000
		Refund requests/correspondence	40,000
TOTAL	\$700,000	TOTAL	\$700,000

Source: Kehoe, J. et al. (1995). *Activity-based management in government*. Washington, DC: Coopers & Lybrand, p. 19.

The definition of an “activity” is critical to ABC. Though the literature indicates some nuances in the meaning of a state agency or departmental activity, the states of South Carolina and Washington have established a widely accepted definition of the term. These states define an activity as follows:

An activity identifies a specific problem that needs addressing and explains how it is addressed by an agency function or operation. An activity is something an organization does to accomplish its goals and objectives. An activity consumes resources and produces a product, service, or result. One way to define activities is to consider how agency employees describe their jobs to their families and friends. On behalf of the state’s citizens, we basically want to know, “What do you do? For whom? Why is it valuable?” Activity descriptions tend to be better than program descriptions at revealing the nature and purpose of the work state government performs.⁸

Given this definition of an activity, the State of Washington—for example—defines one its “activity units” in the following way:

Early Childhood Education and Assistance

In FY 2005, approximately 68% of all three- and four-year olds were technically designated as “unready” in skills and behaviors to begin kindergarten. Many of these children live in households below established federal poverty income levels. In order to address this problem, the Early Childhood Education and Assistance Program (ECEAP) was established by in FY 2001 by RCW 28A.215 and is a comprehensive school-readiness program for three- and four-year-old children and their families living in poverty or otherwise at risk of failure in school. ECEAP’s value or purpose is to ensure all children are ready to succeed in school, regardless of family income or other historic barriers to achievement. Children receive early learning services in literacy, language, math, science, health, medical linkages, and social and emotional development. Since

parents are children’s first and most important teachers, ECEAP offers family support services to encourage parent involvement, provide education in child development, health and nutrition, and enable family self-sufficiency. ECEAP’s 33 public and private community contractors design services within flexible program standards to fit the specific needs and resources of their service area. The Department of Public Instruction monitors contracts to ensure compliance with statewide standards, and provides technical support, training and development to contractors.

Agency: 350 – Department of Public Instruction

Strategy Category: Provide for school ready kids and families

Budget: **FY 2005** **Total** \$26,277,000
 FY 2006 **Total** \$26,306,000

Expected Results:

5,804 children and their families will receive comprehensive early-learning services to prepare them for success in school and in life.⁹

Again, ABC provides detailed and useful data as to the complete cost of an activity and its results or benefits. With regard to *cost*, ABC provides the total amount of resources, measured in dollars, spent to deliver a service or make a product. And as to *benefit*, ABC provides the outcome or results, related to dollars, as tied to an activity, process, service or product.¹⁰

Technically, ABC can even be more refined than the definitions provided above. In Figure 2, it is illustrated how a government agency or department might use ABC to determine activity costs and associated outputs, cost per units, etc. of “receiving and processing fee payments.” The detail here is exhaustive, but the advantage is a full and clear understanding of costs of a process and its related activities.

**Figure 2. Receiving and Processing Fee Payments
--Annual Passes for State Parks--**

Activity	Output	Annual Volume Measure/Quantity	Cost per Unit	Total Cost
Accept fee payment	Accepted fee	150,000	\$1.00	\$150,000
Processing of payments by agency	Processed payments	150,000	.05	7,500
Processing of returned checks	Bad checks processed	1,500	25.00	37,500
Daily closeout and review of	Daily fees checked	1,320	3.00	3,960

collectors				
Consolidate and deposit receipts	Deposited receipts	220	2.00	440
Review and transfer funds	Transferred funds	3	250.00	750
Prepare account memo	Report	3	80.00	240
Reconcile accounts	Balanced account	3	250.00	750
TOTAL				\$201,400
Cost per payment received and processed				\$1.343

Source: Kehoe, J. et al. (1995). *Activity-based management in government*. Washington, DC: Coopers & Lybrand, p. 109.

Additionally, it should be noted that Figure 2 sums up or captures all costs associated with the fee process including facilities, administration, etc. under the various “activities” which are broken out. Hence every activity is clearly indicated along with its associated costs, outputs, and cost per unit. Also, the final cost of receiving and processing payments for annual park passes is clearly shown (\$201,400) and the final cost per unit is indicated (\$1.34 per fee received and processed).

Hence, ABC provides decision makers—governors, legislators, public officials and administrators—with valuable and important information and data. Detailed cost data are significant in that they give decision makers the opportunity to make optimal choices about how to allocate limited resources. ABC data also permit decision makers to streamline, re-engineer, and restructure state agency operations and processes to produce the maximum results at the best cost. And, equally important, ABC assists decision makers to compare, in a valid way, in-house service provision costs to the costs associated with contracting government services privately.

Comparing Costs between In-house and Contracted Services

As stated earlier, to make knowledgeable decisions as to use in-house services or to contract out (public vs. private service provision), it is necessary to make valid cost comparisons.¹¹ The comparison of costs of in-house and contract provision is somewhat complex and often problematic. One common problem is the underestimation of costs. Often indirect and overhead costs are not fully considered, and at times, conversion and tax expenditure costs (special tax privileges and tax and regulatory exemptions) are not factored in as they should be. Another problem often associated with in-house vs. contract service provision is the absence of consistent and structured cost analysis methodologies. Many state governments, for instance, use cost analysis methods that are not comprehensive, reliable, and/or well thought-out. This is due generally to inexperience or unfamiliarity with accepted activity-based cost methodologies.

This section discusses a systematic method for state governments to make cost comparisons for deciding between public (in-house) vs. private (contract) service

provision.¹² To do this, the determination of total costs associated with in-house service provision will be reviewed. After this discussion, the determination of total costs of contract service provision is examined. Lastly, the actual comparison between the full costs of in-house vs. contract service will be addressed.

The Determination of Total Costs Associated with In-house Service Provision

The total cost of in-house provision of a state governmental service or activity comprises all *direct* costs along with all *indirect* costs (a proportional share of agency or departmental overhead costs). The equation is thus: Direct costs + portion of associated indirect costs = Total in-house costs.

Figure 3. The ABC Formula*

$\text{Total Costs} = \text{Direct Materials Costs} + \text{Allocable Other Overhead} + \text{Activity Costs}$ <p style="text-align: center;">↓</p> $\text{Direct Labor} + \text{Service Overhead} + \text{Administrative Overhead}$ <p style="text-align: center;">With little allocable overhead remaining.</p>

*Note: “An ABC system reorganizes the overhead, adding general and administrative overhead to the extent possible, such that most of the overhead and labor costs are absorbed into the cost of activities.”
Source: Keller, J. (1997). *Activity-based costing and management tools in government and the private sector*. Altamonte Springs, FL: Institute of Internal Auditors, p. 8.

Direct costs are those costs that are entirely (100%) connected with a “targeted” service or activity. These include, for example, all salaries, wages, and fringe benefits. Direct costs also include rent, utilities, supplies, materials, travel, copying or printing, telecommunications, and any other costs used exclusively to provide the service or activity. Additionally, direct costs would include interest costs (interest on capital items that are financed such as buildings and vehicles), pension costs (regardless if fully funded by the government or not), and facility or equipment costs (depreciation should be considered for these capital costs).¹³

Indirect costs or overhead costs are expenditure items that contribute to the targeted service or activity and at least one other service or activity. In other words, indirect expenses provide a share or portion (< 100%) of an activity’s costs. These could be, of course, a proportional share of personnel costs or other costs (rent, utilities, supplies, etc.).¹⁴

Indirect costs are normally allocated by one of three methods. These are:

- Allocating by the number of FTEs in each activity (assuming that indirect costs are proportional to the number of employees).
- Allocating by the total dollars budgeted for each activity (assuming indirect costs are proportional to the budget of the targeted service).

- Allocating by one or more bases that serve as good surrogates for the costs caused by each activity, e.g., rent costs by the number of square feet.¹⁵

The Determination of Total Costs of Contract Service Provision

By definition, the total costs of contract service provision are calculated by adding together contractor costs, administration costs, and any related conversion costs. From this sum, any off-setting revenues¹⁶ are subtracted. Thus, the equation is as follows: Contractor costs + administration costs + one-time conversion costs (amortized) – off-setting (new) revenues = Total contract costs.¹⁷

Contractor costs are fairly straightforward. They are the costs a contractor pays to provide a service or activity. They include all personnel costs, materials and supplies, rent, equipment, etc. Normally, contractor costs are clearly identified in an RFP.

Contract administration costs, on the other hand, are elusive and difficult to calculate precisely. Contract administration costs include all actions taken by the contractor from the beginning to end of a contract. These costs include, for example, preparation of the RFP, procurement, contract negotiations, change orders and contract amendments, invoicing, and monitoring and oversight.¹⁸

One way to compute contract administration costs is fairly subjective and based on prior contractual experiences. The literature states that the cost of contract administration usually is within the range of 10 to 20%. Generally, the percentage of contract administration costs for *smaller* contract amounts is nearer to the high end or 20%, and contrarily, the percentage of administration costs for *larger* contract amounts is nearer the 10% range. Further, if contract monitoring is to be the primary responsibility of a state agency, department or other governmental unit, contract administration costs should be less.

Another way to compute contract administrative costs is to utilize the formula developed by the U.S. Office of Management and Budget. The formula was developed by extensive research by a well-known major accounting firm, Peat, Marwick and Mitchell. (This computation formula or method [OMB Circular No. A-76 Revised – Attachment C – Calculating Public-Private Competition Costs] can be found at http://www.whitehouse.gov/omb/circulars/a076/a76_rev2003.pdf).

Finally, one-time conversion costs are an integral part of contracting out. These are usually associated with personnel-related items (unemployment compensation, severance pay, etc.), material-related costs (transfer of property and equipment), and various other costs (penalty fees related to ending leases, costs associated with unused facilities and equipment).¹⁹

The Comparison between the Full Costs of In-house vs. Contract Service

Given the discussion above, the remaining cost comparison format (or analysis) is reasonably clear-cut. Several states have developed cost comparison formats or methods to make full assessments between the costs of in-house vs. contract services. Virginia’s Commonwealth Competition Council²⁰ has developed a much touted cost analysis format. (This computation or analysis format [Public/Private Performance Analysis Submittal] can be found at <http://www.vipnet.org/ccp/pppa.pdf>).

Figure 4 illustrates a common cost comparison format (analysis) for determining between in-house vs. contract services. The comparison format is essentially self-explanatory. However, it should be noted that special emphasis should be given to one-time conversion costs and off-setting revenues. The reasons for this special emphasis are twofold: Mainly, that *accurate* cost data here will aid significantly in the decision making process by providing for 1) “full costs” and, additionally, allow for 2) a “level playing field” for comparative purposes.

Figure 4. Cost Comparison Analysis Format

Dept:		Date:				
Service or Activity:		Prepared by:				
Performance Periods						
In-house Performance Costs	1 st (A)	2 nd (B)	3 rd (C)	4 th (D)	Total	Ref. #
1. Direct Personnel Costs						
2. Direct Non-personnel Costs						
3. Overhead Costs						
4. Depreciation or Use Allowance						
5. Total In-house Costs						
Contract Performance Costs						
6. Contractor Costs						
7. Contract Administration Costs						
8. Conversion Costs						
9. Off-setting Revenues						
10. Total Contract Costs						
Decision						
Cost Comparison	$\frac{\text{Total In-house Costs (Line 5, Column D)}}{\text{Total Contract Performance Costs (Line 10, Column D)}} = \text{_____} \%$					
Cost Comparison Decision (Check one)						
Accomplish in-house? <input type="checkbox"/>			Accomplish by contract? <input type="checkbox"/>			
Footnote Where Supporting Information Can Be Found:						

Source: Martin, L. (1993, March). “How to compare costs between in-house and contracted services.” How-to Guide No. 4. pp. 16-17.

Further, two additional things should be noted in the cost analysis in Figure 4. These include performance periods and the cost-comparison ratio.

Performance periods for four intervals are included. This is intended to allow for a better understanding of the cost savings over time due to, for example, conversion costs associated with contracting out. Also, a performance timeline—broken up into distinct periods—will permit an understanding of cost fluctuations due to changes in resource costs related to personnel, supplies, equipment, and so on.

The cost-comparison ratio is simply the ratio of total in-house costs to total contract costs. The significance of this cost-comparison ratio (expressed as a percentage) is based generally on the experiences of federal, state and local governments with contracting out. It is held by many governmental experts and practitioners that a threshold of 10% in cost savings should be achieved to warrant contracting with a private provider. Though an arguable precept, the rationale is that the cost savings must be sufficient enough to outweigh the “upheaval associated with any changeover.”²¹

Common Cost Analysis Mistakes

The discussion thus far has stressed the importance of calculating the *full* costs of both in-house service provision (i.e., by a state agency, department or unit) and contracting out that service. By doing so, within the context of a proper cost analysis, a precise and justifiable cost savings can be determined. As mentioned or alluded to previously in this paper, there are however common mistakes made in determining full costs. These common mistakes include 1) cross-subsidizing, 2) disregarding the allocation of overhead, 3) failing to capture capital depreciation or replacement costs, 4) discounting the cost of debt or interest, and 5) excluding or underestimating costs.²² The following narrative provides a checklist for identifying these frequent and recurring mistakes.

- *Cross-subsidizing* are any costs associated with a targeted government service or activity borne by some other in-house unit. Private contractors often point out that these costs are ignored in RFPs offered by in-house entities.
- The failure again to fully allocate indirect or *overhead costs* is a common mistake in the cost analysis of competing in-house vs. private bids. All overhead should be accounted for in such instances, including personnel costs, facilities, and so on.²³
- All capital items (e.g., buildings, vehicles, special equipment, etc.) should be depreciated. Schedules and formulas for *the depreciation of capital assets* exist in abundance. In all cases, acceptable methods should be used to calculate depreciation costs.
- *Interest* on any relevant debt should be calculated, as appropriate. Interest costs or payments are often not factored into the full costs of a service or activity.
- *Failure to include certain special costs* (e.g., under-funded pensions, legal costs, etc.) is a common mistake in cost analysis (comparisons) between in-house provision and contracting out. Even when included, certain costs are frequently underestimated.

Conclusion

Faced with ever-increasing needs and limited resources, state governments are searching for ways to balance budgets and provide essential public services. To do this, many state officials are using privatization when and where appropriate. The principal aim of such efforts is cost savings and the means—i.e., the particular form of privatization used—is usually contracting out.

Activity-based costing is an effective way to analyze or compare in-house vs. contract provision of governmental services. ABC provides ample details on the full resources used to produce a service output or result and further permits useful data on per unit costs. Armed with this detailed information, decision makers can ascertain true cost savings and even streamline processes or activities.

Cost analysis comparisons to privatize or not must be valid. This paper presents the fundamental framework for making such comparisons. Readers—especially government officials and administrators—are encouraged to think about competitive sourcing or privatization and to research more fully those sound and proven methods used to compare costs and achieve savings.

References

Chi, K., et al. (2003, October). *Privatization in state governments; Trends and issues*. Lexington, KY: Council of State Governments.

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Endnotes

¹ Kehoe, J. et al. (1995). *Activity-based management in government*. Washington, DC: Coopers & Lybrand, p. 25.

² See Eggers, W. (1993, January). "Rightsizing government: Lessons from America's public-sector innovators." How-to Guide No. 11. Retrieved November 9, 2004 from <http://www.rppi.org/htg11.pdf>.

³ The contracting out of specified governmental functions is the most frequently used form of privatization. For example, as regards state correctional services or functions, the GAO reports that "contracting out occurs in 92.09% of the cases vis-à-vis other forms of privatization." Other functional areas of state government which most often utilize contracting out—as opposed to other forms of privatization such as grants and subsidies, vouchers, etc.—include general administrative services (91.67% of the time), transportation (83.51%), education (81.29%), and social services (71.32%). It should be acknowledged also that state facilities associated with computer data centers as well as park and recreational facilities are regularly contracted out to private firms. See U.S. General Accounting Office. (1997, March).

Privatization: Lessons learned by state and local governments. Washington, DC: Author, pp. 22-23.

⁴ Some experts believe "managerial flexibility" and "speedy implementation" are often vehemently opposed to as acceptable methods of privatization, particularly by local government officials and administrators. Berger, A. (2004, December 10). Written comments.

⁵ On average, at least 6% of services were contracted out by each of 12 states.

⁶ Chi, K., et al. (2003, October). *Privatization in state governments; Trends and issues*. Lexington, KY: Council of State Governments, p. 1.

⁷ Op. cit., Kehoe et al, p. 6.

⁸ South Carolina Office of State Budget. (2004, August 9). "An instructional guide for developing agency activity inventory database." Columbia, SC: Author, p. 1.

⁹ State of Washington. (2004). "Agency activity inventory." For student achievement result area. See <http://www.ofm.wa.gov/budget/activity/activitydetail/agencyactivityinventorybyresult/studentachievebyresult.htm#genappport>.

¹⁰ Op. cit., Kehoe et al, p. 26.

¹¹ Obviously cost is one criterion in making such comparisons, and typically is considered to be the foremost rationale for considering and using private providers. However, service quality, operational flexibility or lack of red tape, speedy implementation, increased innovation, and increased support from political leadership are other reasons frequently mentioned in the literature.

¹² This section is based on a paper authored by: Martin, L. (1993, March). "How to compare costs between in-house and contracted services." How-to Guide No. 4. Retrieved November 11, 2004 from <http://www.rppi.org/htg04.pdf>.

¹³ Ibid., p. 3.

¹⁴ It should be noted that Kehoe et al (1995) defines overhead in a slightly different manner: "Overhead, also known as indirect costs, these are costs that cannot be assigned exclusively to any particular product, project, process, or activity. In traditional cost accounting, overhead includes most support services. ABC takes a much narrower view of overhead and strives to include only *organizational activities* in it. Organizational activities are done to support an entire organization, e.g., preparing a strategic plan."

¹⁵ Op. cit., S. C. Office of State Budget, p. 3.

¹⁶ "An 'off-setting revenue' is any new or enhanced revenue stream (income, sales, property taxes, etc.) that occurs as a result of contracting out." See Op. cit., Martin, p. 10.

¹⁷ Op. cit., Martin, p. 5.

¹⁸ Ibid.

¹⁹ Ibid., p. 9.

²⁰ See <http://www.vipnet.org/ccs/home.htm>.

²¹ Op. cit., Martin, p. 18.

²² The Reason Foundation. (2004). "Avoiding managed competition pitfalls." Retrieved November 12, 2004 from

http://www.privatization.org/database/practicesandstrategies/managed_competition_pitfalls.html.

²³ See earlier discussion in this paper regarding in-house overhead costs.