



Activity-Based Cost Management in the Public Sector

Enabling “more for less” initiatives with fact-based decision making

WHITE PAPER

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Executive summary

There is a growing desire among organizations to understand their costs and the behavior of factors that drive costs. However, there is also confusion over how to understand costs and how to distinguish competing cost measurement methodologies (e.g., activity-based costing, standard costing, project accounting, etc.). The result is that managers and employees are confused by mixed messages about which are the correct costs. Upon closer inspection, various costing methods do not necessarily compete; they can coexist, be reconciled and be blended.

In order to overcome the overgeneralizations of traditional costing systems, with their excessively simplified cost allocations and resulting hidden indirect cost visibility, organizations have been adopting activity-based costing (ABC) systems. These systems are based on cost modeling that traces an organization's expenses, both direct and indirect, to the products, services, channels and customers that create those expenses.

In recent years, government organizations have begun to look to private industry for ideas on how to improve business practices and efficiency in resource use. Activity-based cost management (ABC/M) is one of the most important tools being introduced in the effort to achieve these ends.

ABC/M provides fact-based data. In the absence of facts, anybody's opinion is a good one. The biggest opinion usually wins, which may be the opinion of your supervisor or the supervisor of your supervisor. To the extent that the decision makers are making decisions based on intuition, gut feel or misleading data, your organization is at some risk.

Many senior managers have gotten used to making decisions without good information, so they think they do not need it. But the pressure to make better decisions and use resources more intelligently has increased. ABC/M provides valuable information that can be used to make a broad range of decisions, from outsourcing to operational planning and budgeting.

ABC/M has often met with a mixed response in its initial stages, despite widespread discontent with traditional accounting mechanisms and its proven track record elsewhere. This paper describes what ABC/M is intended to do – and what it is not – in the hope that such enlightenment will help in applying ABC/M principles to the critical problems now facing much of the public sector.

Activity-based concepts are very powerful techniques for creating valid economic cost models of organizations. By using the lens of ABC/M, organizations of all sizes and types can develop the valid economic models required for their executives and managers to make value-creating decisions and take actions to improve their productivity and resource use – and ultimately to better serve their constituencies.

In this paper, I discuss the pressures for improved cost accounting in government, misapprehensions and other sources of resistance against ABC/M, and successful applications of this system in the public sector. In the end, it will be proposed that ABC/M in government is an idea whose time has come, if only because it makes sense.

Political pressures to hold down costs

Public sector organizations at all levels and of all types are facing intense pressure to do more with less. Governments at all levels in almost all the countries in the world are feeling some sort of fiscal squeeze. This includes departments, administrations, branches, foundations and agencies.

The pressure on spending has many sources. It can come from politicians aiming to win taxpayers' approval or directly from taxpayer special-interest groups. There is pressure from the competition with other cities to attract homebuyers or with other counties, states or nations to attract businesses. In the United States, the cities don't just compete against other cities – each city competes against its own suburbs, and the suburbs often have an advantage in attracting residents and businesses. They may offer lower taxes, better schools and less crime. As residents and businesses relocate, the cities and towns they departed from lose a little more of their tax base. Less money is available unless tax rates are raised.

Additional pressure may come from declining demand, regardless of the reasons. An example is rural road maintenance. In these cases, economies of scale are less easily achieved, and the fixed costs become more expensive.

In the United States, the federal government is shifting some responsibilities to state and local governments but providing only limited funding to fulfill those obligations. Regardless of where the pressure is coming from, the message is: better, faster, cheaper – hold the line on taxes, but don't let service slip.

Meeting this daunting challenge often requires governments to:

- Determine the true and actual costs of services.
- Implement process improvements.
- Evaluate outsourcing or privatization options (i.e., is it better to deliver internally or purchase from external organizations?).
- Align activities to the organization's mission and its strategic plan.

The solution for governments under pressure cannot be to simply uncover new sources of revenue or to raise tax rates again. Some have succumbed to these quick fixes, only to meet with a downward spiral as more businesses and families move to more economically attractive locations. Governments must get a handle on their problems. Holding the line on raising taxes will need to be more than a hollow campaign slogan; it may become an absolute requirement to retain the tax base. This restriction creates more reasons to understand costs. Efficiency and performance, once reserved for the private sector, will increasingly be part of the language of the public sector.

ABC/M and its integration with strategy mapping and balanced scorecards (i.e., performance measures) offer potential solutions to the problem. Providing meaningful, fact-based information to government officials, managers, and employee teams can be a cost-effective means of bringing about beneficial change and improved performance in government and not-for-profit environments. Intuition and political persuasion are becoming less effective as means for decision making.

An excessive focus on functions

When a newly elected mayor takes office in a city, he or she may be told by the city managers that the finances are reasonably healthy. Expenditures and resources are in balance; there is no fiscal deficit. But can those same managers tell the new mayor how much it costs to fill a pothole, process a construction permit, or plow a highway mile or kilometer of snow?

The reference to the cost of outputs will repeatedly resonate throughout this paper. It is inescapable. The need to consider outputs – not simply the level of manpower, equipment and supplies – is what is forcing the awareness and acceptance of ABC/M. At a very basic level, ABC/M is simply a converter and translator of expenditures restated as outputs, and more specifically, the costs of outputs.

ABC/M answers fundamental questions such as “What do things cost?” and “Why?” It answers “Why?” by displaying the drivers of activity costs. It also answers the questions “Who receives the costs?” and “How much of the costs did they each receive?” Examples of output costs are the cost per each type of processed tax statement or the cost per each type of rubbish disposal pickup. ABC/M serves as a calculation engine that converts employee salaries, contractor fees and supplies into outputs. The work activities are simply the mechanism that produces and delivers the outputs. The work is foundational; all organizations do work or purchase it. All work has an output. The topic of outputs is a critical aspect of ABC/M.

The dilemma for many not-for-profit and government agencies, branches, administrations and departments is their fixation with determining budget levels for spending without many facts to go from. From the budget requester’s perspective, an annual budget negotiation is usually an argument to retain or increase the level of resources relative to the existing level. Regardless of whether this behavior is due to an ego display by ambitious or fearful managers or a lack of any better means to determine resource requirements, it is the rare manager who accepts a reduction in anything – except maybe a reduction in headaches caused by his daily problems.

An advanced application of ABC/M data is to use its calibrated consumption rates from past periods to apply against the future volume and mix of expected outputs and services to determine the future level of resources required. In this way, ABC/M enables better budgeting.

A fixation on inputs

The actual or planned spending levels reported by the general ledger or fund balance accounting system eventually emerge as the primary financial view for each of the functional managers. This has become the typical way that functional managers think about what level of spending can satisfy the needs of people relying on them for good service. Most managers are reasonably confident in the reported numbers underlying this view. They roughly know their employee salaries and benefits, have authorized most of the purchasing requests, and understand (but may despise) the allocation for support costs that they are internally charged. That is, the managers understand the bookkeeping system, including its archaic cost-chargeback schemes. Figure 1 illustrates the limited view that many managers have of their fiscal condition.

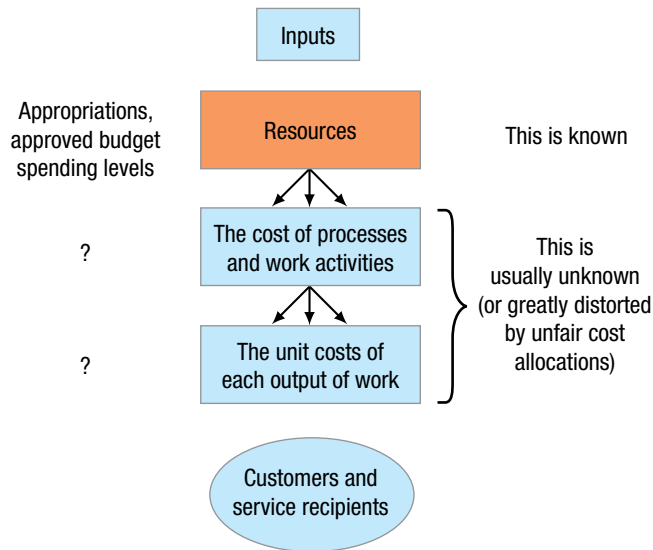


Figure 1 – The primary view of most managers

The traditional accounting structure mirrors the hierarchical organizational structure. Each function is a cost center of sorts, and the accountants consolidate the functional expenses into totals with elegant roll-up procedures. But is managing a cost structure all about focusing on the supply side of resources, which is basically the organization's capacity to serve? Or should the focus begin with reacting to the demands for work placed on the organization from service recipients and customers? ABC/M brings visibility and understanding to the latter – fulfilling the needs of the service recipients and customers consuming the organizational outputs. It focuses on the demand side for resources.

Removing the blindfold – outputs, not just resources and expenditures

The traditional financial accounting system has evolved in such a way that all public sector managers reasonably know what expenditures they have made in past time periods. But none of them knows what the costs were, either in the aggregate or for the individual outputs. So what are the costs of outputs? What is the cost of each output? How does one accurately calculate these costs?

Expenses and costs are not synonymous. To simplify semantics, resources are used and expenses or expenditures are incurred when money is exchanged with third-party suppliers and with employees. In contrast, costs are always “calculated” costs that restate and transform the expenses as work activities or as outputs. Expenses and costs equate in total, but are not the same things.

Figure 2 illustrates how management’s limited view can be fruitfully extended beyond the resource/expenditure level. Traditional financial management systems focus on the expenses of labor, supplies, etc., rather than on what work within processes is performed and the outputs resulting from using these resources. ABC/M makes visible what has been missing in financial reporting.

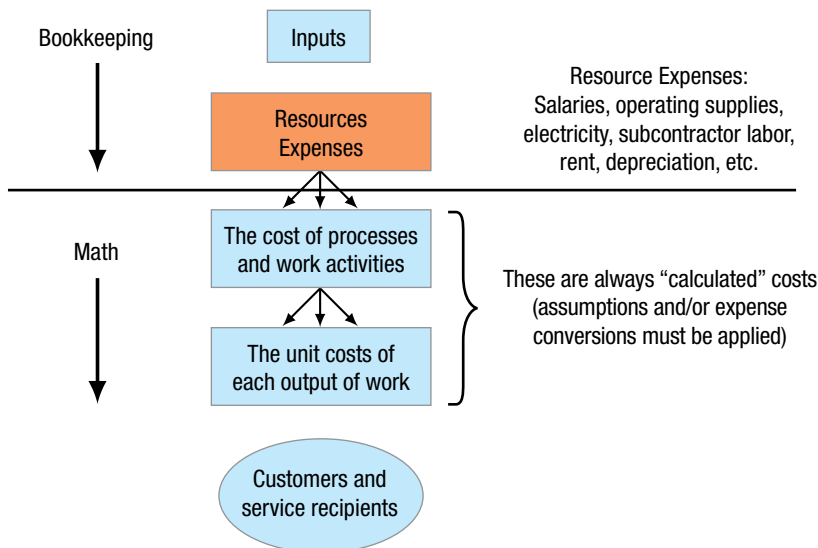


Figure 2 - Expenses and costs are not the same thing

Governments adhere to and comply with standard government accounting principles. For example, fund accounting is similar to the general ledger bookkeeping that commercial businesses use, except that fund accounting adds an extra step. In most simple terms, fund accounting first establishes a planned or budgeted spending ceiling for various funds and their accounts. (Funds are comparable to responsibility cost centers in general ledger accounting.) Approved spending often comes in the form of appropriations.

The extra step in fund accounting involves requisitions. Managers basically use requisitions for spending; if the spending ceiling has been reached, or if the requisition fails other tests, then the purchase is prohibited. In effect, government and not-for-profit accounting adds an extra level of spending control. However, although these extra controls deter government managers from committing fraud or stealing money, they do little to stop them from wasting it.

In many cases, the accounting system calculates overhead or support costs and arbitrarily allocates them based on broad-brushed averages (such as the number of units delivered) to the final outputs of the organization. This basis for how the cost allocation is distributed is usually convenient for the accountants but does not reflect the unique and relative relationship between resource consumption and the final outputs, much less the work processes involved. That is, different types of outputs uniquely consume work activities in varying ways, but the arbitrary averaged cost allocation does not reflect it. Hence, some outputs are overcosted and others must be undercosted – because it is a zero-sum situation.

A simple way to understand ABC/M

Here is a simple way to understand the basic principles of ABC/M. Imagine that you and three friends go to a restaurant. You order a small salad and they each order the most expensive item on the menu – a prime rib steak. When the waiter or waitress brings the bill the others say, “Let’s split the check evenly.” How would you feel? You would feel this is unfair and inequitable. This is similar to the effect on many products and service lines in the cost accounting system when the accountants take a large amount of indirect and shared support overhead expenses and allocate them as costs without any logic. There is little or no relationship to how the products or service lines uniquely consumed the expenses. This is inequitable and unfair to each product’s or service’s cost. It is somewhat like taxation without representation. ABC/M gets it right. In the restaurant example, ABC/M is equivalent to the waiter or waitress providing four individual checks – you are only charged for what you ordered.

Allocating costs using broad averages is flawed, inaccurate and misleading. In the end, many managers dismiss the calculated cost from their accounting system as a bunch of lies. It may accurately reconcile in total for the organization, but not for individual pieces. Unfortunately, these same managers have little choice but to go along with these flawed costs. They have little influence or control over the accountants. The accountants count the beans, but they are not tasked to grow the beans. Activity-based costing resolves this problem by tracing activity costs to products using factors that reflect cause-and-effect relationships.

When managers and employee teams do not reliably know what the costs are for their current outputs, they have a difficult time knowing what the future costs may be for future levels of demand or for changes in requests for their outputs. Most managers consciously or subconsciously stick with the primary view of the costs they are familiar with – their spending. And the accounting system, structured to report spending this way, reinforces this view. As mentioned, no managers willingly volunteer to start a year with fewer resources, so they fight for the same, or (usually) more, resources at budget planning time.

From the spending view to the activity and output view

When managers receive their monthly responsibility center report calculating the favorable or unfavorable variance between their actual spending and their budget, what does that information really tell them? When they look at their variances, they are either happy or sad, but they are rarely any smarter. ABC/M extends the minimal information in the departmental spending reports to make managers and employee teams smarter. This extended information is then used for making decisions – better decisions than are made without the ABC/M data.

Decisions always affect the future. The past has already happened. ABC/M's strength is giving insights based on understanding past costs, not just spending, and then applying the same data to make better decisions.

Let's add some more realities to this description of government and defense organizations as service providers. Let's now include the key players – public sector workers, taxpayers and users of the government services:

- The civil service worker or military member might simply prefer the status quo or whatever may be a little bit better for him or her.
- The taxpayer prefers to be taxed less.
- The user of government services desires more and higher-quality service.
- The functional manager is defending the existing level of resources and fiscal budget.

It is a no-win situation. Something has to give. The combination of these disparate interests creates tension and conflict. How does one untangle the knots? Untangling is difficult when the primary financial view that is used by management only shows spending for resources. There must also be an equivalent financial view of the outputs. Questions and discovery begin when the costs of outputs can be made visible and compared. A more reasonable discussion about spending levels occurs when you can equate the spending and what the service recipients get for the spending with the costs of outputs and outcomes.

And even if two outputs, such as the unit cost per rubbish disposal for two neighboring houses per month, appear to be the same amount, each house may have consumed differently. One may have had fewer containers but with cumbersome items, like wood blocks and metal rods, for the material handlers to deal with. The other may simply have more containers, but with standard contents. Alternatively, compare two municipal rubbish disposal services with the identical number of residential stops and identical work crew staff at similar weekly wages. All things being equal, if one crew averages seven hours per day while the other averages eight hours, the cost per each house disposal is equal for each municipality, but the material handling is not. One has more unused capacity than the other. One has a higher disposal cost.

Outputs are the linkage to the external recipients, such as citizens, as well as to the internal work activities. The distribution of workload adapts to changes in demand levels for outputs. Output costing can also benefit the cross-functional processes. An ABC/M information system gives visibility to all of these relationships (and even more with the additional capability to score or tag costs with ABC/M's "attributes," such as value-added versus non-value-added costs, which will later be described in this paper).

ABC/M is a cost assignment network

Why do some public sector managers shake their heads in disbelief when they think about their organization's cost accounting system? I once heard a public official complain, "You know what we think of our cost accounting system? It is a bunch of lies – but we all agree to them." Of course, he was referring to the misallocated costs based on broad averages that result in flawed and misleading information. What a sad state it is when the users of the accounting data simply resign themselves to a lack of hope. Unfortunately, many accountants are comfortable if the numbers all reconcile in total; they care less if the parts making up the total are correct. The total is all that matters, and any arbitrary cost allocation can tie out to the total.

How can traditional accounting that has been around for so many years be considered so bad all of a sudden? The answer is that the data is not necessarily bad so much as somewhat distorted, woefully incomplete and partly unprocessed. Figure 3 provides the first hint of a problem. The left side shows the classic monthly report that responsibility-center managers receive under the general ledger system. Note that the example used is a back-office department of a license bureau, such as for driver or hunting licenses. It is a factory, too, only its outputs are documents. This is to demonstrate that, despite misconceptions, white-collar workers produce outputs the same as factory workers. You can substitute any department, government or commercial, for the license bureau department in the example, and the lessons will hold.

From: General Ledger				To: ABC Database	
Chart-of-Accounts View				Activity-Based View	
License Processing Department				License Processing Department	
	Actual	Plan	Favorable/ (Unfavorable)	Key/scan licenses	\$31,500 ← # of —
Salaries	\$621,400	\$600,000	\$(21,400)	Analyze licenses	121,000 ← # of —
Equipment	161,200	150,000	(11,200)	Suspend licenses	32,500 ← # of —
Travel expense	58,000	60,000	2,000	Receive licensee inquiries	101,500 ← # of —
Supplies	43,900	40,000	(3,900)	Resolve member problems	83,400 ← # of —
Use and occupancy	30,000	30,000	—	Process batches	45,000 ← # of —
Total	\$914,500	\$880,000	\$(34,500)	Determine eligibility	119,000 ← # of —
				Make copies	145,000 ← # of —
				Write correspondence	77,100 ← # of —
				Attend training	158,000 ← # of —
				Total	\$914,500

Activity cost drivers
↓
← # of —
← # of —
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← # of —
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← # of —
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← # of —

Products/Citizens

\$914,500

Figure 3 – The language of ABC/M

If you ask managers who receive this monthly report, “How much of these expenses can you control or influence? How much insight do you get into the content of your employees’ work?” they will likely answer both questions, “Not much!” This is because salaries and fringe benefits usually make up the largest portion of controllable costs, and all the manager sees are those expenses reported as lump-sum amounts.

When you translate those “chart-of-account” expenses shown under the general ledger or fund accounting system into the actual work activities that consume these expenses, a manager’s insights begin to increase. The right side of Figure 3 is the ABC/M view that is used for analysis and as the starting point for calculating the costs both for processes and for diverse outputs such as services. In effect, the right-side ABC/M view begins to resolve the deficiencies of traditional financial accounting by focusing on work activities. ABC/M is very work-centric, whereas general ledger and fund accounting systems are transaction-centric.

Another key difference lies in the language used to depict cost allocations (i.e., absorption costing). ABC/M describes activities using an action verb/adjective/noun grammar convention, such as “process building permits” or “open new taxpayer accounts.” This gives ABC/M its flexibility. Such wording is powerful because managers and employee teams can better relate to these phrases, and the wording implies that the work activities can be favorably affected through change, improvement or elimination. General ledger and fund accounting systems use a chart of accounts, whereas ABC/M uses a chart of activities as its language. In translating the data from a general ledger or fund accounting system into activities and processes, ABC/M preserves the total reported budget funding and costs but allows the individual elements to be viewed differently.

To be further critical of the left side chart of accounts view, notice how inadequate the data is in reporting the costs of processes that run cross-functionally and penetrate through the vertical boundaries of a government agency's organization chart. The general ledger and the fund accounting system are organized around separate departments or cost centers. This presents a real reporting problem. For example, with a city's department of public works, what is the true total cost for processing equipment repair requisitions that travel through so many hands? For a service organization, what is the true cost of opening a new account for a citizen or service recipient?

Many organizations have flattened and de-layered such that employees from different departments or cost centers frequently perform similar activities and multitask in two or more core workflow processes. Only by reassembling and aligning the work-activity costs across the workflow processes, like "process homebuyer permits" or "open new taxpayer accounts," can the end-to-end process costs be seen, measured and eventually managed.

The structure of the general ledger and fund accounting system is restricted by cost-center mapping to the hierarchical organization chart. As a result, this type of reported information drives vertical and hierarchical behavior, not the much more desirable process behavior that customers consume. In effect, with traditional accounting systems, public sector managers cannot see the costs that belong to their end-to-end workflow processes – and what is driving those costs.

How do cost drivers work?

Additional information about what drives costs can be gleaned from the right-side view of Figure 3. Look at the second activity – “analyze licenses,” at a total cost of \$121,000 – and ask yourself what would make that cost significantly increase or decrease? The overall answer is the number of licenses analyzed. That is the activity driver. Figure 3 illustrates that each activity, on a standalone basis, has its own activity driver. At this stage, the costing is no longer recognizing the organization chart and its artificial boundaries. All the employees’ costs, regardless of their department, have been combined into the work performed. The focus is now on the cost of that work and on what influences and affects the level of that workload.

There is yet more that can be gained from this view. Let’s assume that 1,000 licenses were analyzed during that period for the department shown. Then the unit cost per each analyzed license is \$121 per license. If one specific group – senior citizens over the age of 60, for example – were responsible for half those claims, then we would know more about the sources of demand (i.e., workload). The senior citizens would have caused \$60,500 of that work (500 claims multiplied by \$121 per claim). If married couples with small children required another fraction, married couples with grown children a different fraction, and so on, then ABC/M will have traced all of the \$121,000. If all of the other work activities were similarly traced, using the unique activity driver for each activity, ABC/M will have piled the entire \$914,500 into each group of beneficiaries. This reassignment of resource expenses will be more accurate than any broad-brush cost allocation applied with traditional accounting systems that use averages. Like the restaurant example, your cost is for what you uniquely consumed.

Note that the expense and costs are equal in the resource, activity and cost object views; they must reconcile in total. This is comforting to accountants who by nature desire some sense of control, or at least the knowledge that they have not left something out or made a math error. But the more important message is that the general ledger and fund accounting chart of accounts view only answers “What was spent?”, whereas by transforming expenses into calculated costs in the next two views, there are more valuable and useful answers to the questions “Why was it spent?”, “What caused the rate of spending?” and “Who or what was it spent for?”

This cost assignment network is one of the major reasons that ABC/M calculates costs of outputs more accurately. The assignment of the resource expenses also demonstrates that all costs actually originate with the end user, service recipient or beneficiary of the work. That location/origin of costs could be a citizen, welfare recipient, new homebuyer seeking permits or another government agency relying on those services. This is at the opposite end from where people who perform “cost allocations” think about costs.

Cost allocations are structured as a one-source-to-many-destinations redistribution of costs. They ignore that the destinations are actually the origin for the costs. The destinations, usually outputs or people, place demands on work, and the work draws on the resource capacity (i.e., the spending) – hence the costs measure the effect by reflecting backward through the ABC/M cost assignment network.

In one sense, the report on the left side of Figures 3 represents more of an “accounting police” or “budget police” command-and-control tool. This is the most primitive form of control. Have you overspent your budgeted target? If you have, who says that budgeted target amount was fair when it was initially imposed? As stated previously, when managers receive the left-side report, they are either happy or sad *but rarely any smarter*. That is unacceptable in today’s world, which expects much more out of organizations than in the past.

We will all witness the emergence of “learning organizations,” not ones that are straightjacketed with spending restrictions. The right side of Figure 3 restates the same expenses as the left side, but the costs are reported in a much more useful format and structure for decision support.

When expenses are expressed as activity costs, they are in a format that can be traced into outputs. Expenses are transformed into calculated costs. As a result, employees won’t say, “We could not care less about what anything costs.” Employees care more when they know what things cost and believe in the accuracy of those costs. Cost accounting is outside their comfort zones. ABC/M makes cost understandable and logical.

The modern movement toward managing with a process view has created a growing need for better managerial and costing data. Managing processes and managing activities (i.e., costs) go together. By current definition, a workflow process comprises two or more logically related work activities intended to serve end-receivers and beneficiaries; thus, a means of integrating processes, outputs and measured costs has become an even more important requirement for managers and employee teams. ABC/M data provides a logical way to visualize and report on these linkages.

In summary, ABC/M resolves the structural problems inherent in the general ledger and the fund accounting system by first converting account balances into activity costs. ABC/M then assigns the activity costs to cost objects or reassembles the activity costs across processes. This new and transformed cost data can be used to identify operating relationships that are key to making good decisions affecting products, service lines and customers.

Multiple-stage ABC/M approach

To adequately trace costs using the ABC/M method requires more stages than the two-stage assignments displayed in Figure 3. Rather than simply tracing the cost of resources to activities and then to cost objects, the multiple-stage approach models cost flows in a manner that more closely reflects the actual flow of costs through an organization. Often there are support people who support other support people who ultimately support the primary workers who make products for, or deliver services to, external parties such as citizens or other agencies. These cascading stages of indirect and shared costs should not use arbitrary, broadly averaged cost allocations, but should follow ABC/M principles. The multistage cost assignment approach includes an understanding of the relationships between indirect work activities and other activities, as well as between those activities and cost objects. Costs are traced from activity to activity in a series of stages, all based on cause-and-effect relationships.

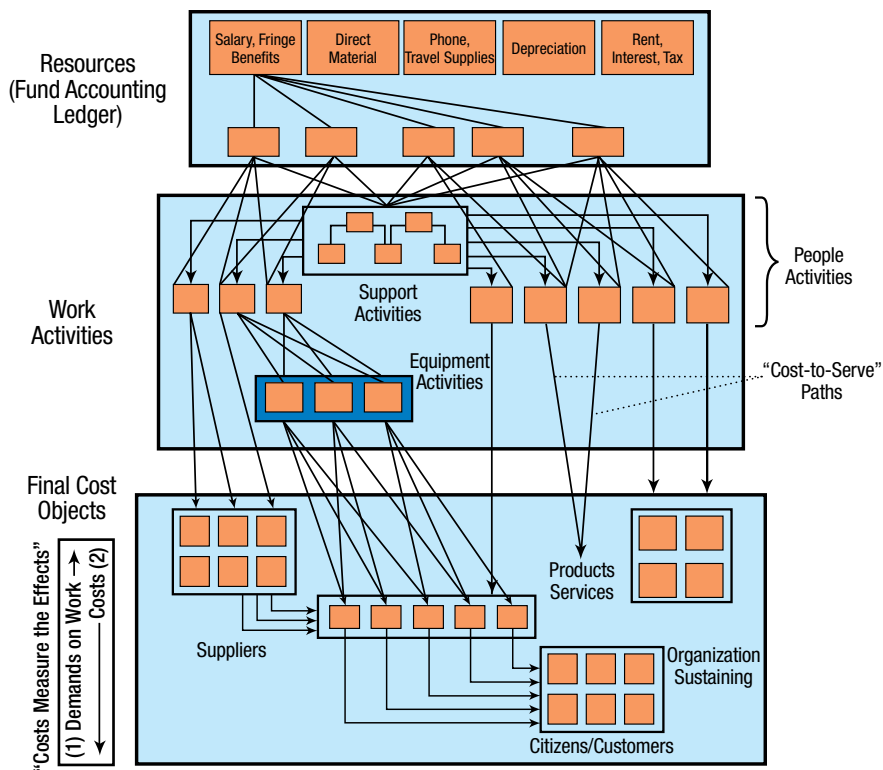


Figure 4 – The expanded ABC/M cost assignment network

Figure 4 breaks up and expands Figure 3's two-stage view, but rotates it 90 degrees to a vertical view to reveal a generic ABC/M structure that is a good representation of a universal costing model for any organization. To understand Figure 4, imagine the cost-assignment paths (the arrows) as pipes and straws where the diameter of each path reflects the amount of cost flowing. The power of an ABC/M model lies in the fact that the cost assignment paths and their destinations provide traceability to segment costs from beginning to end, from resource expenditures to each type of (or each specific) customer – which is ultimately the origin for all costs and expenses. The cost assignment network captures and reflects the diversity and variation on how cost objects uniquely consume activities and resources on which they draw. To understand costing, it is useful to mentally reverse all the arrowheads in Figure 4. This reveals that all expenses originate with a demand-pull from customers. The calculated costs simply measure the effect. Costs are always a measure of effect – a basic principle in costing.

The bottom portion of Figure 4 reveals multiple final-cost objects – supplier-related activity outputs, products/services and citizens/customers. It displays a nested consumption sequence of final cost objects. A metaphor for this consumption sequence is the food chain where herbivorous animals eat plants and predators eat the herbivores. The final cost object, which in this figure is the citizens/customers, ultimately consumes all the other final costs except for the organizational sustaining costs.

Organizational sustaining costs are activity costs not caused by making products or delivering services to customers. The consumption of these costs cannot be logically traced to products, standard service lines, channels or customers. (They can be arbitrarily allocated but not with a causal relationship.) An example would be when the accountants close the books each month. These activity costs would be traced respectively to senior management as an example of an organizational sustaining cost object. Allocating them to products, services or customers is misleading, because they did not cause these activities and would overstate those costs – which sends wrong signals to employees who use product cost information for decision making.

The direct costing of indirect and shared costs is no longer an insurmountable problem, given the existence of commercial ABC software products. ABC allows intermediate direct costing to a local process, an internal customer or a required component that is causing the demand for work. In short, ABC connects customers to the unique resources they consume – and in proportion to their consumption. Visibility to costs is provided everywhere throughout the cost assignment network.

Case study: Canada Passport Control

In the mid-1990s, approximately 25 percent of Canadians owned a passport. Today that number has more than doubled to roughly 65 percent. And while Passport Canada is a government organization, it doesn't receive any funding, which means it has to generate enough revenue to cover its expenses – from employees to real estate – without making a profit. With constant fluctuations in demand for passports, the agency needed to improve its forecasting accuracy of demand and translate that into capacity planning, including staffing its service locations.

For Passport Canada, forecasting is essential in determining revenues and required resources. Demand during the past few years has been inconsistent, however, partly due to new US regulations that require Canadian citizens to have a passport to cross the border. As a government agency, Passport Canada makes efficient service delivery a priority. By employing analytics, it ensures the quality and timeliness of its passport application process.

“Buying a passport is not something you do every day,” says Hubert Laferrière, Acting Director General of Policy, Research and Communications Bureau with Passport Canada, who is responsible for economic analysis and business planning. “You don't plan to buy a passport. You plan to go on a trip, and then if you need a passport you'll buy it.”

That means demand is inconsistent. Similar to a retail business, Passport Canada is selling a product – which in this case consists of new passports and renewals of previous passports – and it needs to manage the revenue and understand its costs of that product for its operations.

When the first phase of the American passport requirement began in 2007, Passport Canada predicted a 7 to 8 percent increase in demand. The actual increase was 20 percent. This poor forecast served as a catalyst for change for forecasting patterns of demand. The analytics team was spending most of its time capturing and cleaning data, rather than using that data to develop models and forecasts or developing a true business intelligence capability.

These forecasts (combined with applying activity-based cost management methods to calibrate the consumption rates to deliver the agency's products and services) help determine the staffing levels and operating budget, which affects all other functions of the organization – from HR to IT.

“Using SAS® Forecast Server, we've started to understand behaviors of applicants,” says Laferrière.

Passport Canada has learned, for example, that people in Ontario have a tendency to buy a passport three to four months in advance, while people in Quebec and the Maritimes buy at the last minute.

“The behavior in terms of acquiring a passport is different across the country, and this information helps us align our resources with these patterns,” Laferrière says. “And at a regional level, we can use different parameters to adjust demand.”

When there is a slowdown or increase in demand, the agency can adjust to shifts through the use of part-time and casual employees. This data can also be used to model new initiatives, determine if a new delivery channel is necessary, make adjustments to a current channel or make improvements to products.

The analytics team provides forecasts with fresh cost data three times a year (for the upcoming 12 to 18 months), but also provides monthly reports at the national, regional and office level. These reports provide specific indicators in areas such as production, capacity, human resources and costs versus revenues and are sent to all directors of the organization so key decision makers receive information regularly.

There are also benefits for its most important stakeholder: the Canadian public. Analytics is being used to improve services, such as determining the shortest wait times in specific passport offices across the country. Passport Canada is able to turn around a five-year passport in less than 10 business days, which ranks as one of the fastest secure systems in the world.

“We don’t have a lot of resources, so we have to be careful how we spend money, and that’s why it’s important for us to have these tools and develop a discipline to use that information,” says Laferrière. “For us it’s about producing sound forecasts and having the right information at the right time to make decisions. Ultimately, it’s about improving the service we provide to Canadians.”

Operational ABC/M for productivity

Managers and employee teams are seeking more transparency and visibility of their costs. Just reliably knowing ABC/M’s unit costs of their work output is useful for benchmarking to search for best practices or report trends to measure performance improvement. ABC/M removes the illusion that support overhead (i.e., indirect) expenses are necessary and therefore appear to be free – they are not free. The costs of an output, product or service (i.e., a final cost object) can be reduced by:

- Reducing the quantity, frequency and intensity of the activity driver (e.g., fewer inspections reduces the “inspect product” activity cost).
- Lower the activity driver cost rate from productivity improvements (e.g., shorten the time for each inspect product event).
- Understand the sources and causes of waste that lead to non-value-adding activities in order to reduce or eliminate them (e.g., solve the problem that requires an inspection in the first place).

These three are examples of how ABC/M data leads to cost management for productivity improvement. The idea is to do more with less. That is, produce more outputs with the same amount of resources or the same amount of outputs with fewer resources. Note how these actions support the continuous improvement principles and lean management initiatives that are embraced by the operations and quality communities.

ABC has a bonus (available with commercial ABC software) referred to as ABC/M attributes. It can report another dimension of costs – the “color of money” spent. It applies cost attributes, usually to an activity, by tagging or scoring each activity with a code. This dimension of cost does not exist in general ledger accounting systems because attributes are tagged to activities or to cost objects, not to resource expenses.

An example of a tag would be if an activity is deemed as value-adding or non-value-adding. Another example is the five sequential “cost of quality” (COQ) categories of work that increase in severity: error-free, prevention-related, appraisal-related, internal failure work and external work. Attributes do not alter the cost of anything calculated by ABC/M. But attributes facilitate grouping activity costs into various categories that in turn help focus (e.g., non-value-added costs) and can suggest actions. Commercial ABC/M software can keep track of a work activity’s attribute and trace it to cost objects. So, for example, one may discover that the unit cost of delivering two similar service lines is relatively similar, but one consumes much more non-value-added activity costs than the other. Presuming operational improvements will reduce those non-value-added costs, this means the one service line has a greater likelihood of being a lower cost in the future. This insight could never be detected using general ledger cost center reporting and/or traditional broadly averaged cost allocations.

‘But our department does not have outputs’

It is a bogus statement by some departments that, presumably due to the nature of their work, they have no outputs. There is no dichotomy between workers who think and plan and workers who deliver services and tangible products. Managers and workers who think, plan and give direction conclude that because their work deals with intangibles, not things, then there is no definable work output. But outputs can be intangible; many are. What is the output of a university education? Is it the diploma? Is it each professor’s course? Is it the learning by each student? These may all appear to be intangible. But the financial cost for each one is measurable.

Several years ago at one of the US government laboratories where well-paid physicists wrestle with theory and advances in their field, a business-process effectiveness study was conducted. Debate surrounded how to map inputs, processes and outputs. Some of the physicists believed their work was unmappable. The physicists argued that one could not rigorously define the brain’s thinking process when it comes to innovation. That is not the point with ABC/M.

All work has outputs. For example, when one of this same government laboratory's experiments is conducted, there is a completed experiment. When a research paper is written and submitted by a physicist, there is a completed research paper. There may have been lots of thinking, preparation, tests, typing and copying support, and so on to finish the research paper, but these costs can be appropriately assigned. When the report is done, the aggregate output can be described as a completed research paper – including the costly tests.

Moreover, all completed research papers are not equal in the time, effort and support required. There can be great diversity and variation. ABC/M measures the variation and links the costs back to how much the organization spent for salaries and supplies. The focus is not on who funded that spending, although there is a clear audit trail back to the source. ABC/M recognizes that spending did occur and went somewhere and into something for somebody.

Seeing the true cost of outputs can produce some organizational shock. Here is an exaggerated example. If a completed report – after all the time, effort and support is traced into it – costs, for instance, \$325,000, that may be a surprise. If it is read by only three young advisors to a US senator, and they brief the senator in a quick hallway conversation without any more use of that report, it makes you wonder whether the report was worth it. You cannot be sure, but at least you have a significant piece of information that you did not have before – the true cost to produce that particular report. The \$325,000 price tag would clearly make some other government service provider – let's say one that may be strapped for budget and whose mission is feeding and caring for children in need – really think about whether appropriations are fairly distributed. Employment by government is not an entitlement program for its workers. Understanding the value of the contribution of work must be understood and compared among alternatives.

The purpose here is not to get emotional or political or to tug on heartstrings. ABC/M does not take sides. It just reports the facts. People can then debate the value of it all. But ABC/M does provide the basis for determining cost/benefit tradeoffs and thus allows comparison with other services competing for tax dollars. This type of dialogue and discussion cannot easily occur when funding is simply stated in the form of salaries, supporting expense and supplies (e.g., budgets). Dialogue is better stimulated when costs are stated in other terms, such as unit costs per each output, permitting comparisons to be made.

A recognized need to shift emphasis from inputs to outputs is leading some civilian and defense organizations to adopt financial funding relationships based on *pay for performance* – rather than simply disbursing cash to service providers as if they were entitled to it. As an example, one city government had historically funded one of its social service agencies based essentially on inputs. The mission of this particular social service organization was to prepare and place unemployed people into jobs as workers. Historically, the agency billed the city’s central funding authority based on the number of unemployed candidates interviewed and the number of hours of job training provided. Whether any of these candidates actually got a job was irrelevant to the agency getting paid. The basis for payment to the agency was events involved in the process, rather than the relevant results – successful hirings – that the city had hired the agency to produce.

The city government altered the payment arrangement to one based on the number of jobs lasting for at least six months that were secured for these former welfare recipients. This output-based solution worked much better. The agency recognized that it needed to customize its training according to individual needs and shortcomings. In the end, the agency benefited as well – its revenues are now increasing at a 20 percent annual rate.

ABC/M uses (and some pitfalls)

A significant lesson learned from previous implementations of ABC/M is the importance of working backward with the end in mind. That is, management benefits from knowing in advance what it might do with the ABC/M data before the calculation effort is undertaken. The end determines the level of effort required.

Although ABC/M is basically just data, one of its ironic shortcomings is the wide variety of ways the data can be used. Different uses require more or less detail or accuracy. Accordingly, the system should be built with a clear idea of the types of decisions or assessments that the ABC/M data will be asked to support. Some ABC/M implementations may miss the mark by being initially designed as either overly detailed or not detailed enough.

Eventually, as the ABC/M data is applied as an enabler for multiple uses, the size of the system and level of effort to maintain it stabilizes at an appropriate level. Through using the data, the ABC/M system self-balances the tradeoff between the level of administrative effort to collect and report the data and the benefits as it meets various users’ needs.

Here are examples of the more popular uses of ABC/M by governments and defense organizations:

- **Fees for service/cost-to-serve** – to calculate costs of specific outputs as a means of pricing services provided to customers and other functions/agencies.

- **Outsourcing/privatization studies** – to determine which specific costs will actually remain or go away if a third party were to replace an existing part or all of an organization. Increasingly, commercial companies are positioning themselves to perform services once viewed exclusively as a public-sector domain. Some government agencies are learning that it is better to proactively measure their costs to prevent the possibility of a poor decision by an evaluation team. For example, the team may mistakenly conclude that outsourcing makes the most sense and discover after the fact that more accurate data would have reversed that decision. ABC/M can also help a government organization bring its costs in line with those of a commercial provider; its governing authority may allow a grace period for doing so.
- **Competitive bidding** – Increasingly, commercial companies are positioning themselves to perform services (such as operating prisons) that were once exclusively the domain of the public sector. But the reverse is also possible. Some government departments, such as those performing road maintenance or tree trimming, may excel and compete with commercial companies.
- **Merging/diverging agencies or functions** – to identify administrative services that could be shared or combined among multiple agencies or functions.
- **Performance measurement** – to provide some of the inputs to weighted and balanced scorecards designed to improve performance and accountability to taxpayers.
- **Process improvement/operational efficiency** – to optimize resource use and, at times, to serve as a key to an agency's survival. Some agencies are facing budget cuts (or taking on additional activities due to consolidation) and are unclear about the costs of their internal outputs. What does it cost to process a new registrant versus a renewal? Why might these two costs be so different? Do both costs per each event seem too high?
- **Budgeting** – to routinely plan for future spending not based on the current rate of spending but, more logically, on the demand volume and mix of services anticipated.
- **Aligning activities to the strategic plan** – to correct for substantial disconnects between the work and service levels that an organization is supplying and the activities required to meet the leadership's strategic goals. It can be shocking for organizations to discover to what extent the things they do well are deemed unimportant to the strategic plan.

There are many uses for managerial accounting data. The idea here is not to start an ABC/M implementation process just because it feels right or because an authority commands or dictates it. Know in advance what problems the data will be solving.

Multiple views of costs are empowering

When senior leadership, managers and employee teams are provided reliable views of their resource spending, the costs of work activities, the costs of processes involved in these activities, and the total and unit costs of various outputs deriving from the activities, they have much more of a basis for making decisions. Compare that to what they have today. They have the spending view but no insight to how much of that spending is (or was) really needed or why. Managers need to know the causal relationships. When employees have reliable and relevant information, managers can manage less and lead more.

An ABC/M system provides a good starting point for any nonprofit or government organization to model its cost behavior. It is a solution looking for problems – and all organizations have problems. ABC/M provides a top-down look at how an organization's resources get used, why, by whom and how much.

Visualize dividing resource spending into two categories: resources used and resources unused (i.e., idle capacity). For the first category (resources used), a cost can only be incurred if some person or piece of equipment does something. In other words, if one wants to understand your cost behavior, one must understand which activities your organization performs, what other work activities or services these activities support, what outputs derive from these activities, and the characteristics of who is requesting and using these outputs. There are linkages. An ABC/M system models these linkages and reports the results.

A major benefit of ABC/M is the ability to provide data of varying detail and accuracy to managers and employee teams in a distributed fashion. This data allows each person to see, analyze and manage the costs and activities that are within his or her control. It is at this level that real changes in cost structure, performance measurement and service delivery occur. Today, this type of management data can be provided with commercially available software products that link to existing fund accounting, cost and metric systems. ABC/M software can flexibly deliver meaningful reports to an individual's workstation – whether through integrated systems or Web delivery. This is a cost-effective way of achieving performance improvement.

ABC/M can be applied in different ways to achieve different outcomes. It is a flexible and powerful methodology that has a unique ability to deliver true cost information from which critical decisions can confidently be made. As demand pressure mounts and budget funding is reduced, the public sector and not-for-profit organizations clearly need this kind of information to achieve effective results.

Realizing true cost savings or future cost avoidance

Many organizations experience an illusion in which introducing productivity improvements and streamlining actions appears to automatically save costs. But being more efficient does not equate to savings in expenses – as opposed to costs – unless resources are removed (or, when volume increases, extra resources do not have to be acquired).

Where do cost savings come from? All things being equal, and if there are no significant changes in revenues or funding following a change in services, then the only positive impact on cash flow must come from reduced variable costs. If purchased materials and supplies are reduced a certain percentage, those costs are totally variable and consumed as needed. The financial savings are real. That is, the cost savings are truly realized as cash outlay expense savings.

But when an organization works more efficiently and manpower staffing remains constant, then there is a freeing up of unused capacity in the workers. These workers are more available to do other things. But as long as they continue to get paid their salary and wages, the organization realizes zero expense savings. Unlike the totally variable “as-needed” purchased materials, workers are “just-in-case” fixed costs where their full capacity is, in effect, contracted in advance of the demand for their services. If they are not needed all the time, the government pays for their idle capacity as well.

As efficiencies are produced, manpower cost savings or future cost avoidance can only be realized by management in two ways:

- It can fill the freed-up worker's time with other meaningful work, ideally addressing new volume of customer orders.
- It can remove the capacity. That means removing the workers to realize the savings in expense.

The issue here is that of transferring employees, demoting them, or removing them. One of the most difficult political issues stemming from privatization is the loss of public jobs. This problem can be mitigated, however, if government and its private-sector partners work together to ensure the least pain and most gain for the individuals displaced. Similarly, kinder and gentler ways can be found to reduce staff when required by gains in efficiency or changes in demand level. But in the end, the organization must be committed to its core role of efficiently delivering products or services.

The loss of jobs must be dealt with openly, compassionately and comprehensively. There are several ways to accomplish this. For example, in an outsourcing situation, the private-sector company can rehire a portion of the existing government employees who are already experienced in the outsourced activities. Additional ways to address the loss of jobs are through transfer and attrition. Some employees can be placed in growth areas of the organization or elsewhere in the government as opportunities arise. In the interim, some organizations will set up a temporary “job bank” that uses the displaced workers in a meaningful way until attrition or new needs create job openings.

Why change now?

It is trite to say that change is the only constant, but it is so often true. The question for the public sector is whether it will drive change – or be driven by it. In the US, large federal budget deficits and new regulations, such as the Government Performance and Results Act (GPRA), have acted as catalysts for change in the way that government units perform their functions. Competition from the private sector will place additional pressures on governments, agencies and the military to provide good service economically.

Without visible, relevant, valid data, it is difficult for organizations to stimulate ideas and evaluate what options are available – and their financial impact. ABC/M data provides fundamental information that is part of the solution. Applying ABC/M may well be critical to an organization's survival.

I believe that government is moving past the initial stage of rethinking what government does and how it does it. Restrictive funding pressures have already jump-started that. Government units are adopting a greater performance orientation and are replacing a detailed micro-management style with a more practical approach where the costs are justified by the benefits. ABC/M is now playing, and will continue to play, an important role in helping government to manage its affairs.

As important as it is, however, ABC/M is not a panacea. As mentioned earlier, cost management should always be done in the broader context of performance management that integrates time, quality, service levels, capacity planning and costs. But an organization's understanding of its cost structure behavior is critical, so a managerial accounting system that supports managerial economic analysis, which ABC/M does, is critical for all stakeholders – its employees, its community, its loyal customers and its shareholders. I hope that this paper provides additional insight on how ABC/M systems can be improved and applied in the public sector as a whole.

Performance management: An integrated framework of methodologies

ABC/M, as well as strategy mapping and balanced scorecards, are components of an integrated suite of improvement methodologies now popularly called “performance management.” A simple definition of performance management is “the translation of plans into results – execution.” It is the process of managing an organization's strategy. Think of performance management as an umbrella concept that integrates the business improvement methodologies you are already familiar with (or likely have heard the terms for) in technology. In short, the methodologies no longer need to be applied in isolation – they can be orchestrated.

Will it be a fad or provide a higher-level foundation for managing results? I believe it will be the latter.

Performance management (PM) is sometimes confused with a human resources personnel management system. It is much more encompassing. It describes the methodologies, metrics, processes, software tools and systems that manage the performance of an organization. Performance management overarches executives and managers and cascades down through the organization and its processes.

There are several variants of PM, including business performance management (BPM), enterprise performance management (EPM) and corporate performance management (CPM). Consider these terms synonymous with PM.

There is no single PM methodology because PM spans the complete management planning and control cycle. Think of it as a broad end-to-end union of solutions including three major purposes: collecting data, transforming and modeling the data into information, and reporting it online to users and decision makers. Many of PM's component methodologies have existed for decades or have become recently popular, such as the balanced scorecard. Some of PM's components, such as activity-based cost management, are partially or crudely implemented in many organizations. PM refines them so that they work in better harmony with PM's other components. Early adopters have deployed parts of PM, but few have deployed its full vision.

This paper describes one component of PM – activity-based cost management – and how it can be used in public sector applications. It also outlines the demand for improved cost accounting in the public sector, describes reasons for misunderstanding and resistance to ABC/M, and gives examples of successful implementations. Please see the Appendix for another example of ABC/M in government.

In addition, I encourage you to read other SAS white papers to learn about the other components and how they fit together. SAS' powerful data management, business intelligence and analytics tools and solutions are uniquely positioned to provide organizations the power to maximize both their service levels and the use of their resources.

Appendix – ABC/M in a state road maintenance department

The “end-of-the-road” final cost objects consume all of the cost assignments that occurred prior to them. Some cost assignments are direct to them, but in increasingly overhead-intensive organizations, most costs arrive as indirect and shared costs.

For example, a government road maintenance and repair department does not service roads based on the types of cars or trucks or types of drivers who use those roads. It is the characteristics of the road that cause the work crews to do more or less work. It may be true that the weight of trucks causes more road damage than do automobiles, but the type of vehicle is more of a higher-order cost driver than an activity driver.

The causal force of trucks versus autos may certainly be discussed when seeking ways to improve costs. However, for the purposes of ABC/M, the roadbed itself serves as the best source (i.e., final cost object) to understand the interdependencies of costs. The roadbed is the only practical way of connecting an output of the department’s workload back to the used resources (e.g., types of trucks, garages, employees, etc.).

Figure 5 provides a simplified diagram of the ABC/M cost assignment network for a road maintenance function with incomplete but representative examples of final cost objects that are consumed in different proportions by various types of roadbeds – the final cost object.

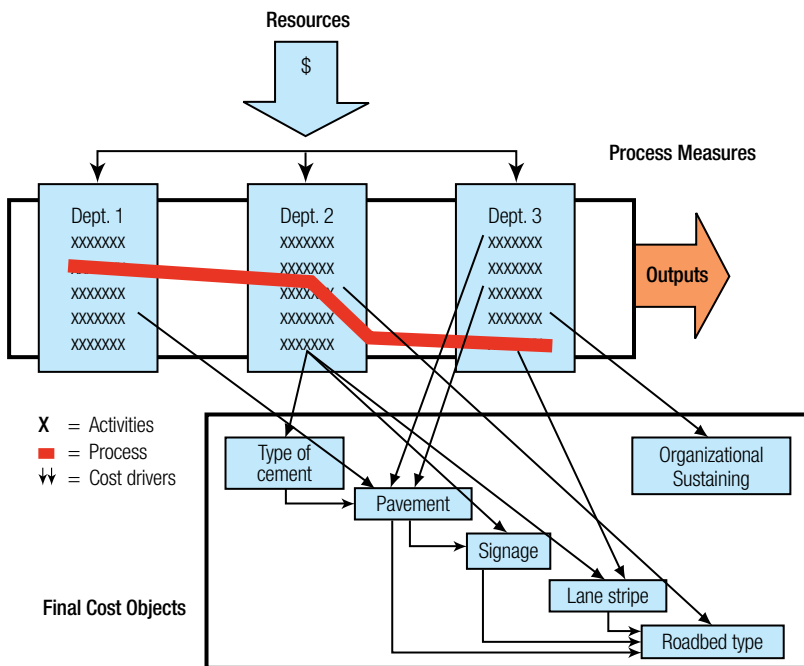


Figure 5 – Highway maintenance ABC/M cost assignment network

The inherent diversity of the road itself can be segmented into several dimensions with two or more classifications:

- Number of lanes – two-lane versus four-lane road.
- Road surface – cement versus asphalt.
- Location – rural versus urban.
- Designation – expressway, state road or city road.

With only those four dimensions and choices, there could be a maximum of 24 different ABC/M final cost objects (i.e., $2 \times 2 \times 2 \times 3 = 24$). The organizational discovery and learning comes when the costs for each type of road are compared on a relative basis – such as the average cost for each mile or kilometer of road. Many roadway organizations have already captured data describing the number of miles or kilometers for each of the 24 combinations classified above. By dividing the annual cost (or any time span) for each unique type of road, the organization may be shocked to discover that the four-lane urban expressway road costs 800 percent per mile (or per kilometer) more than the lowest type of road. But during the cost analysis, this comparable difference could be supported by the facts. For example:

- The four-lane road requires twice as many passes of a snow-plow truck as a two-lane road.
- The snow-plow trucks for expressway roads may be maintained in large garages with technical equipment and a complete organization of mechanics, whereas in rural areas, they give the driver a hammer and a wrench and wish him or her good luck.
- The expressway may receive more frequent line painting.
- The expressway may have more sewer culverts to maintain.
- The expressway may have more electronic road direction signs.

There can be dozens of other characteristics that result in the four-lane urban expressway being much more expensive than other types of roads. Regardless of whether one can articulate all of these characteristics of diversity, the level of activity costs used to serve the roadbed are inherently governed by each type of roadbed.

Notice that each final cost object in Figure 5, such as the signage, has different types. For example, signage may consist of expensive electronic signs on main roads, metallic signs on all roads and wooden signs on rural roads. ABC/M traces all of the sign maintenance work activity costs into the signs as if they were the only purpose for costing. In fact, many organizations dedicate a “local” ABC/M model to such a final cost destination. In this example, all of the signage costs are further reassigned into the roadbed based on the unique number and type of signs for each specific roadbed. This ABC/M assignment relies on cost object drivers; the activity drivers have already completed their mission to trace the workload costs into their cost object.

Also notice in Figure 5 how the type of cement is assigned to the pavement, not directly to the roadbed. In this case, there are enough costs and diversity in types of cement to dedicate a final cost object. Then these costs are mixed like a recipe's ingredients into various types of pavements. The pavements ultimately are reassigned into the types of roadbeds.

In the end, all of the activity costs, excluding business sustaining costs, must be traced to the final cost object – the types of roadbed – regardless of how the ABC/M design team chooses to configure its ABC/M model. Teams that follow the driver definition rules and add common sense to not get too detailed beyond incremental benefits will compute the most reasonable final cost object costs.

ABC/M model analysis

Continuing with this highway maintenance and roadbed example, Figure 6 illustrates fictitious costs that compare the unit cost of the output of work for each type of road's cost per mile. This type of report is very popular with ABC/M users. It provides not just the total unit costs of the output – now validly computed – but it also subdivides that same total unit cost among the various work activities that are being consumed.

Number of lanes	Road surface	Location	Total cost	Number of miles	Work activity	Unit cost per mile
four	asphalt	interstate	\$270,137,078.40	125,342	cut grass electronic signs fill potholes plow roads paint stripes replace signs	\$2,155.20 \$120.00 \$334.25 \$150.00 \$975.60 \$450.50 \$124.85
two	bituminous	rural	\$29,783,384.10	43,578	cut grass electronic signs fill potholes plow roads paint stripes replace signs	\$683.45 \$220.00 \$0.00 \$65.00 \$250.00 \$112.20 \$36.25
four	asphalt	county	\$95,567,207.84	65,672	cut grass electronic signs fill potholes plow roads paint stripes replace signs	\$1,455.22 etc. etc. etc. etc. etc. etc.

Figure 6 – An example of “unitized” costs

This more detailed visibility of activity costs within a unit of output provides a form of internal benchmarking. It allows the employee teams and managers to ask better and more focused questions. For example, why does this cost so much more than that? This is particularly relevant if it is a large cost. Note that ABC/M does not automatically conclude that one observation is good and another is bad. ABC/M simply provides opportunities to ask better questions. In this way ABC/M becomes an excellent focusing tool, highlighting where to look for potential improvements.

However, when the same information revealed in Figure 6 is combined with ABC/M's powerful attributes, users of ABC/M become more aware of what to change. For example, if a relatively high cost per unit of work activity was also scored as a postponable or discretionary cost, rather than as a critical one, then employees can consider scaling back on their workload for that activity. At a minimum, the employees can intelligently discuss what underlying factors are leading to the high costs relative to the other final cost objects.

In this way, the cost assignment network's final cost-object module provides insights to stimulate teams to think and discuss how their limited resources are being used and how they may be better used.

ABC/M versus process flow chart analysis

When employee teams and managers connect how the diversity and variation of their cost objects cause the levels of their cost structure to exist, they can better consider ideas to change things. The quality management community occasionally proclaims that "variation is the enemy." This is based on how variation can lead to higher costs of nonconformance. But some variation is market-generated, so diversity must be accepted – as well as the indirect costs that come with it.

Ironically, process flow charts do not always stimulate the questions and thinking that ABC/M stimulates. This is because the process view that is time-sequenced does not give much visibility to the varying mix of outputs and different types of recipients that truly cause additional activity costs. Process flow charts are mix-blind. They simply map steps without adequate insight into who or what uses the steps. Because greater differences and variation of outputs causes higher costs, seeing the cost relationship becomes valuable. Because process flow charts do not shed much light on variation, ABC/M provides that needed visibility.

Admittedly, with only process flow charts including the constituent activity costs, employee teams may come up with some suggestions. After all, process-based thinking is a major leap over hierarchical organizational (i.e., stovepipe) thinking, which is now recognized as outdated. But the primary interest for any analytic exercise is to stimulate employee teams and managers to be innovative. ABC/M is stronger at accomplishing this than is the process view of costs.

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