Solid Waste Accounting: What Does it Cost?

At the Environmental Finance Center Solid Waste Finance Workshop

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Developing a more complete accounting for costs in solid waste services supports needs for accountability, effective management decision making, and performance improvement. Improving cost accounting in solid waste can serve multiple purposes including budgeting, performance monitoring, program evaluation, service initiatives, assessment of financing alternatives, setting fees, assessing privatization, and peer benchmarking.

1. Full-Cost Accounting
   a. Distinction between Budgeted Costs and Full Costs
   b. Critical issues to deal with in full cost accounting
      i. What to include or exclude in service definition – need to define the boundaries of the activity of interest. For example are we talking about just collection costs or do we want to include disposal. Are we focused on residential or commercial solid waste?
      ii. Direct versus Indirect Costs
         1. Direct costs include all those that are in your budget.
         2. Indirect costs include items which are on the larger organization’s budget and can be attributed to the service of interest. For example solid waste services requires some work with HR and Finance to manage payroll, benefits, hiring, etc. but these costs are not likely to be billed to the solid waste department.
         3. Categories of cost to consider for both direct and indirect:
            a. Personnel – Wages/Salaries, Benefits, FICA, etc.
            b. Operating Costs – Gas, Supplies, Vehicle Maintenance, etc.
            c. Capital - Vehicles, building space, equipment, etc.
               i. Depreciation or actual costs
               ii. What to do about financing
            d. Overhead – Includes costs born at the overall organization level that support operation but are not directly attributed to the department. Examples would include, HR, budget, elected officials cost, liability, etc.
       4. See attached cost form from the NC Benchmarking Project as an example of a full costing method.
       5. The critical issue is to capture all relevant costs regardless of where they are in the budget or accounting system and to capture costs that are carried at the organization wide level but not directly attributed to service departments.
   c. Full-Costs versus “Go Away” costs – For purposes of analyzing decisions to outsource a service area, full cost analysis is critical but costs should only
include those that will “go away”. For example operational costs directly or 
indirectly associated with a service such as fuel or vehicle maintenance 
would go away if the service was discontinued. However some full costs 
such as overhead for HR for example would probably not go away because 
the marginal differences to HR’s workload would be slight and would not 
justifying reducing HR staff for the work done to support Solid Waste.

2. Analyzing Costs Over Time
   a. Comparing costs and service performance over time, particularly longer time 
frames, is complicated by the effects of inflation and service growth or 
decline. Adjustments should be made for both of these factors to enable fair 
comparisons.
   b. Adjustments for inflation should be done for costs over time. Adjustments 
should be made to account for inflation using some type of chain price index 
such as the Consumer Price Index (CPI) or the State and Local Government 
Price Deflator. See attachment for details on how to calculate inflation 
adjusted costs if you are unfamiliar with this technique.
   c. Adjusts for costs over time should also be made to reflect growth or decline 
in service as measured by workload. Rather than total costs, a better 
comparison is made by looking at cost per ton collected or cost per collection 
point. In this way we adjust for effective changes in service provision which 
might raise or lower costs.

3. Comparing Costs with Efficiency Measures
   a. Elevated cost and performance reporting by looking at efficiency measures 
rather than just costs or workload data. Data for costs and workload such as 
tons of refuse collected are important for telling us the resources consumed 
and what we did. Reporting costs or workload measures such as tons of 
refuse or recycling collected provide important information about inputs and 
outputs. But transforming this information into efficiency measures 
(outputs/inputs) elevates practice. Experience with the Benchmarking 
Project shows that greater focus on efficiency measures is associated with 
more positive actions and results.
   b. Benchmarking or Peer Comparisons works best with full cost accounting 
   i. To make fair comparisons, peer organizations need to be reporting 
based on similar cost accounting and service definitions.
   ii. With good benchmarking, organizations can gain insights to identify 
performance issues that are hidden when looking at a single 
organization. Peer comparisons also allow for simple testing of what 
differences in services or communities that may drive efficiency and 
effectiveness.