LOCAL FINANCE

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THE ART OF USING PERFORMANCE AND COST DATA

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The literature on performance measurement is full of research on why and how we should measure performance. What is lacking, however, is sufficient information on how local government officials actually use performance and cost data for service or process improvement.[1] The limited research on data use typically takes one of three forms: it offers survey results on the number of public institutions that actually use performance and cost data;[2] it supports data use in conjunction with strategic planning and program evaluation;[3] or it describes the results from statistical models used to analyze performance and cost data.[4]

The North Carolina Local Government Performance Measurement Project (the North Carolina project), a collaborative benchmarking initiative, encourages data use as one of its primary goals. This report reviews the various ways in which participating jurisdictions in the North Carolina project are using performance and cost data and presents examples of practical applications of data use for service or process improvement. The objective is to increase the likelihood that local government administrators will use performance and cost data in their daily management function.

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1. Ronald C. Nyhan and Lawrence L. Martin, "Comparative Performance Measurement," *Public Productivity & Management Review* 22 (March 1999): 348–364.

2. Governmental Accounting Standards Board, *Survey of the Use and Reporting of Performance Measures* (September 30, 1997): http://www.rutgers.edu/Accounting/raw/seagov/pmg/project/index.html.

3. John R. Allen, "The Uses of Performance Measurement in Government," *Government Finance Review* 12 (August 1996): 11–15.

4. Ronald C. Nyhan and Lawrence L. Martin, "Assessing the Performance of Municipal Police Services Using Data Envelopment Analysis: An Exploratory Study," *State and Local Government Review* 31 (Winter 1999): 18–30.

Background

The North Carolina project originated in 1995, founded by a group of local government officials who wanted to compare performance and cost data across jurisdictions. The goals of the project are to promote performance measurement by North Carolina localities, to produce comparable performance and cost data for the participating units, and to encourage data use for service or process improvement. Seven municipalities contributed to the first performance and cost data report issued in October 1997. Since that time, thirty-five cities and counties have participated in the North Carolina project, and seven performance and cost data reports have been published. Employees of the Institute of Government staff the project, providing a central location for data collection and reporting. Table 1 lists the service areas under study by city and county participants.

Table 1
Service Areas under Study

City Services	County Services
• Residential Refuse Collection	• Building Inspections
• Household Recycling	• Food/Institutional Health Inspections
• Yard Waste/Leaf Collection	• Wastewater Services
• Police Patrol	• Emergency Medical Services
• Police Investigations	• Jail Operations
• Emergency Communications	• Foster Care
• Asphalt Maintenance and Repair	• Abuse & Neglect Investigations
• Fire Services	• Adoptions
• Building Inspections	• Fleet Services
	• Animal Control
	• Tax Administration

The project's goal of promoting performance measurement among all North Carolina localities is also embraced by professional organizations, including the North Carolina Local Government Budget Association and the North Carolina Government Finance Officers Association. The Institute of Government supports productivity improvement by offering an annual school in performance measurement to state and local government officials and by providing technical assistance in the areas of performance measurement, benchmarking, and process improvement.

The North Carolina project achieves its second goal of producing comparable performance and cost data through a process managed by project staff under the direction of the city and county steering committee members. The process begins with the selection of a service area for study by the city or county steering committee. The next step brings service and line managers together to define the service or process and to create workload, efficiency, and effectiveness measures. Participating jurisdictions then enter performance and cost data on forms developed for data collection, and several rounds of "data cleaning" ensure consistency and accuracy.

The final goal of the North Carolina project is to encourage data use for service or process improvement. Several favorable outcomes, including service adjustments and cost savings in both household recycling[5] and residential refuse collection,[6] have been documented. Local government administrators, especially budget and finance officials who serve on the steering committees, are focusing more than ever on data use and are seeking ways to improve service delivery through the use of performance and cost data obtained from the North Carolina project.

Analyzing Comparable Data

The primary products of the North Carolina project are the performance and cost data reports issued annually. However, these documents represent only the starting point in comparative analysis. Data use is achieved once a jurisdiction probes the contents of the report. The following example illustrates how a jurisdiction was able to identify an area for improvement.

The performance and cost data report displays each city's average response time to priority calls as an effectiveness measure for fire services, defining response time as turnout time plus travel time. One of the participating jurisdictions (City C) reported an average response time in the performance and cost data report that approximated the group average. For additional insight, the jurisdiction examined the specific components of total response time found in the explanatory section of the report, including dispatch time, turnout time, and travel time. Table 2 contains partial information obtained from the analytical work conducted by city budget staff.

5. "Project Helps Wilmington Improve City Services," *Institute News* 1 (Spring/Summer 1999): 4–5.

6. David N. Ammons, *Public Budgeting, Accounting & Financial Management* 12 (Spring 2000): 106–124.

Table 2
Average Response Time for Fire Services in Minutes

Unit	Total Response	Dispatch Time	Turnout Time	Travel Time
City A	5.00	1.00	1.00	3.00
City B	5.53	1.08	.83	3.62
City C	6.50	2.00	.50	4.00
City D	5.38	.68	1.12	3.58
Average	5.60	1.19	.86	3.55

Table 2 shows that City C had the highest total response time of 6.50 minutes during the fiscal year, well above the comparable jurisdictions' average total response time of 5.60 minutes. The table also reveals that the performance gap was impacted most by City C's average dispatch time of 2 minutes, compared to the overall average dispatch time of 1.19 minutes.

This analysis demonstrates that an opportunity exists for improving the level of effectiveness in fire services as measured by total response time. While this opportunity was not obvious from a review of the performance measure displayed in the performance and cost data report, the pertinent performance data to support improvement were contained in the service improvement report. The next step is to develop specific recommendations for improvement based on input from fire services and emergency communications.

Investing in Technology

Investment decisions regarding technology confront local government administrators day in and day out. Performance and cost data are useful in the decision-making process because they provide hard evidence of the value of selected technologies. Three examples illustrate this point.

The first example involves solid waste collection. The performance and cost data reports reveal that automated refuse collection reduces the cost per ton collected, reduces the cost per collection point, and increases tons collected per full-time equivalent (FTE) position. One jurisdiction has already used these data to increase its investment in automated packers. This investment also has the potential to decrease workers' compensation claims given the number of claims that arise from solid waste collection.

The second example involves building inspections. Information exchanges among project participants have revealed favorable results from the introduction of various technologies as measured by cost per inspection and inspections per day per inspector. Several jurisdictions are now exploring technological advancements in this service area and are considering the use of satellite building inspection offices to enhance service quality.

The final example involves emergency communications. Several jurisdictions do not participate in all the performance measures associated with emergency communications because they lack the capability to track total calls in the four categories requested by the North Carolina project. However, one jurisdiction is investing in technology to track calls in various forms for project participation and for internal management purposes.

Analyzing Service Fees

Local governments continue to turn to fees for revenue diversification and to avoid property tax increases. Typically, local governments must address two aspects of fee revenue when proposing service fee adjustments. First, officials must document a fair basis on which the fee will be calculated. Second, they must overcome the political barriers that often deter fee increases.

Several jurisdictions are using the performance and cost data reports to analyze service fees. The full-cost accounting model used by the North Carolina project allows jurisdictions to analyze fees based on the total cost of the service provided. This methodology is supported by the Government Finance Officers Association for certain service areas and is more comprehensive than using only direct costs.[7] Service fees are often charged for residential refuse collection, false alarms responded to by police patrol and fire services, building and wastewater inspections, emergency medical responses, and animal control services.

One jurisdiction used the performance and cost data report to analyze the wastewater services function and the associated fees. It determined that environmental health inspectors in the community were providing additional services to their clients as compared to the services provided by their counterparts. This was discovered upon analysis of the data for total permits issued per FTE and total on-site visits per FTE. The jurisdiction responded by maintaining its current service level and increasing inspection fees based on total cost per inspection, thereby placing the cost burden of wastewater inspections on the individuals who receive the services.

7. Steven J. Gauthier, "Applying Full-Cost Accounting to Solid-Waste Management Operations," *Government Finance Review* 14 (August 1998): 19–22.

Another jurisdiction is using the performance and cost data reports to update its ordinance on false alarm fees for the police patrol function. A large gap currently exists between the cost of a false alarm and the cost per dispatched call. Again, the cost methodology employed by the North Carolina project allows jurisdictions to base a service fee on the total cost of providing a service. The jurisdiction is using this information to provide council members with the needed justification to make a fee adjustment that recovers the associated costs of responding to a false alarm.

Analyzing Service Expansion

Service or process improvement may mean an improvement in service quality, an increase in the efficiency of a service, or both. One jurisdiction is using the performance and cost data to analyze the efficiency of its fire services and to determine whether an increase in efficiency could lead to improved service quality. Two fire service efficiency measures are contained in the performance and cost data report: cost per fire department response and inspections completed per inspector FTE. Table 3 provides an analysis of cost per fire department response based on selected jurisdictions.

Table 3
Cost per Fire Department Response

Unit	Cost
City A	$3,246
City B	$1,225
City C	$1,141
City D	$1,851
Average	$1,865

The jurisdiction in question is City A. The reason that the cost per fire department response for City A is so much higher is that the city's fire department does not respond to emergency medical calls. Therefore, the total cost of fire services is being spread across fewer calls as compared to fire departments that respond to both fire related and emergency medical calls. City A is expanding service calls by its fire department to include emergency medical calls, thus decreasing its cost per fire department response. The next step is to track the impact of service expansion on service quality as measured by effectiveness indicators.

Promoting Data Use

Participating units have identified several courses of action to increase the use of performance and cost data. The first is to obtain the organizational capability (in terms of both staff time and staff skills) to analyze performance and cost data. Some of the participating units have addressed this issue by hiring an additional analyst to focus primarily on performance and cost data or by contracting with external organizations. Examples of contractual arrangements include hiring interns and contracting with local accounting firms.

Participating jurisdictions have suggested that budget and finance staffs must take the lead in analyzing performance and cost data. As described in this report, additional analysis is required to highlight the processes that need improvement. The individuals who are most familiar with the performance and cost data are in the best position to initiate the analytical work. However, service managers must be involved in making the recommendations for change.

Finally, participating jurisdictions have cited the annual benchmarking meetings as a way to promote data use. The goal of the benchmarking meetings is to promote service or process improvement by identifying "best practices" among the service providers. These meetings are designed to analyze performance and cost data from selected service areas, to identify performance gaps between participating jurisdictions, and to promote open discussion among the service and line managers who provide the services. Several participating jurisdictions also are conducting their own internal benchmarking meetings to promote data use by local government officials.

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