

DOES A BALANCED SCORECARD DILUTE A LOCAL GOVERNMENT'S FOCUS ON RESULTS?

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A paper submitted to the faculty of
The University of North Carolina at Chapel Hill
in partial fulfillment of the requirements for the degree
Master of Public Administration

March 2009

This paper represents work done by a UNC-Chapel Hill Master of Public Administration student. It is not a formal report of the School of Government, nor is it the work of School of Government faculty.

Executive Summary

The balanced scorecard (BSC) approach to performance measurement has gained popularity in the local government literature in recent years. The BSC, as applied in the public sector, typically focuses on four different perspectives: financials and results, customer satisfaction, employee learning and growth, and internal business processes. Some performance measurement authorities, after years of urging local governments to move their measurement efforts from outputs to outcomes, worried that this balance might dilute the governments' focus on results. This capstone examines the implementation of the balanced scorecards in selected local governments to explore the possibility of a lesser focus on results than found in traditional performance measurement systems.

INTRODUCTION

As the desire for government transparency increases, local governments have been asked to increase their accountability in various aspects of their operations. In response, many local governments have begun or expanded the practice of collecting and reporting performance measures. A recent development in local government performance measurement is the use of the balanced scorecard (BSC) system, a strategy that has been widely used in the private sector.

Because the balanced scorecard is a relatively new system for local governments, its use in this arena has not been extensively studied. Some critics had worried that the BSC approach would negate many of the hard-fought gains in results-based performance measurement, but this concern has not been tested.¹ A 2000 study focusing on the BSC and city and county performance measurement reported the effects of the balanced scorecard from a financial standpoint, but this is only one of the focus areas commonly used in balanced scorecards.² That study did little to reveal whether the adoption of BSC had the effect of altering the focus of a local government and, in particular, shifting it away from a concentration on outcomes.

The purpose of this study is to examine whether adopting a balanced scorecard tends to dilute a local government's focus on results. The study compares the arrays of measures reported in a set of BSC cities with those reported in a set of cities relying on more traditional performance measurement systems, paying particular attention to the cluster of measures addressing outcomes. For the purposes of this study, measures of service quality and effectiveness will be included among these outcome measures.³ Furthermore, outcome measures will be separated into immediate and intermediate outcomes on the one hand and final outcomes on the other. This distinction separates measures associated with results occurring early in the outcome chain and presumed to contribute to the desired eventual outcomes from measures associated with results occurring later in this outcome chain that more nearly address the major goals of a given program.

THE BALANCED SCORECARD

The Balanced Scorecard, developed by Robert Kaplan and David Norton in 1992, is an approach to performance measurement that was originally intended for use in the private sector. The BSC focuses on measures addressing four different focus areas, known as perspectives, to ensure a balanced approach to the evaluation of an organization's goals. Typical perspectives in local government applications include customer satisfaction, learning and growth, internal business processes, and financials.⁴ Typical measures in each of the perspectives include:

- Customer Satisfaction: complaints, satisfaction rate
- Learning and Growth: turnover rate, employee certification/training
- Internal Business Processes: employee productivity
- Financials: revenue, cash flow

For the purposes of this study, the "financials" perspective has been expanded to "financials and service provision" in order to more clearly accommodate the full range of service results.

The label "traditional performance measurement system" has been adopted here to connote a serious performance measurement effort that does not use the BSC approach. Some of the cities labeled "traditional" tie their measures to goals and objectives established through strategic planning; others do not. Traditional performance measurement systems typically include a variety of performance measures, including quantity (outputs), quality, efficiency, and

outcomes.⁵ Outcome measures are also known as effectiveness or results measures. A well-designed traditional performance measurement system has a focus on results, although in practice many fall short of this ideal. The primary difference between the systems labeled “balanced scorecard system” in this study and those labeled “traditional performance measurement system” is the discipline applied in the former whereby objectives and performance measures are developed and reported with four distinct perspectives in mind.⁶

The City of Charlotte, North Carolina, is widely viewed as the most prominent example of public sector implementation of the balanced scorecard. Beyond a few noteworthy examples, however the level of adoption across local governments has been modest. Only 8 percent (11 organizations) of 132 local governments surveyed in 2000 reportedly used the balanced scorecard system.⁷ This was an apparent decline from a higher percentage reported in a similar survey in 1998, where 18 percent (23 organizations) of 140 surveyed reportedly used the BSC.⁸

METHODOLOGY

The performance measures of 14 local governments were examined in this study. Seven of these governments have adopted balanced scorecards and seven rely on traditional performance measurement systems. The seven traditional performance measurement organizations are all participants in the International City/County Management Association (ICMA) Comparative Performance Measurement Project, suggesting that each has above average commitment to performance measurement.

To be selected as one of the seven balanced scorecard cities, a city had to have adopted the BSC prior to 2009 and its data had to be available for examination. These cities were then divided into four size categories: less than 15,000 (one organization), 15,000-49,999 (one organization), 50,000-99,999 (two organizations), 100,000-499,999 (two organizations), and 500,000 or greater (one organization). The traditional performance measurement cities were selected at random from within matching size categories. Thus, all organizations with less than 15,000 in the ICMA Comparative Performance Measurement Project were pooled and then one organization was randomly selected. The organizations were listed alphabetically and assigned a number (starting at 1 for each size category). A random number generator (that only allowed numbers within the range) was then used to determine which organization would be selected for this study. This method was repeated for each size category. In cases where the category had two organizations among the BSC cities, a second number was randomly generated using the same random number generator.

Even a set of only 14 local governments includes members that differ from one another in the array of services provided. In order to deal with this difference, this study focused on four specific functional areas—services provided by all 14 of the organizations in the study. The service functions did not include all of the services of an entire department; instead, each function focused on a specific aspect of a given department. The service functions that were chosen are the following:

- Police patrol (police)
- Fire suppression (fire)
- Street maintenance (streets)
- Water treatment and distribution (utilities)

After selection of the organizations and the service functions, compilation and categorization of the performance measures began (for examples see Appendix A). In the case of balanced scorecard cities, the information was taken from published reports (often included in larger documents such as city-wide Strategic Operating Plans). Performance measurement information from the traditional performance measurement cities was taken from budget documents, unless the government had a separate performance measurement publication.

When categorizing the various performance measures, the following definitions were used:

- Output – includes measures of workload, activities, and raw data counts
- Efficiency – measures that relate resources to outputs
- Outcome – measures that report on service quality or the extent to which the department is meeting objectives
 - Immediate/Intermediate Outcome – measures that report results occurring early in the outcome chain; typically presumed to be a precursor to ultimate outcomes
 - Ultimate Outcome – measures that more directly address the major goals of a department or program

DATA AND ANALYSIS

Table 1 shows that the seven traditional cities report far more performance measures (278) for the four selected functions than do the seven BSC cities (190). However, the total number of outcome measures for traditional performance measurement cities and BSC cities is very similar (86 to 112), with the BSC cities actually reporting more outcome measures overall. All outcome measures are combined in this table—the outcome total includes measures of immediate/intermediate and ultimate outcome.

Table 1: Total Outcome Measures Compared to All Measures

Service Function	City Type	Total Measures	Efficiency Measures	% Efficiency Measures	Outcome Measures	% Outcome Measures	Average Outcome per Organization
Fire	BSC	44	4	9.09	31	70.45	4.43
Fire	Traditional	74	7	9.46	30	40.54	4.29
Police	BSC	36	3	8.33	22	61.11	3.14
Police	Traditional	62	8	12.90	21	33.87	3.00
Streets	BSC	59	1	1.69	32	54.24	4.57
Streets	Traditional	69	12	17.39	16	23.19	2.29
Water	BSC	51	3	5.88	27	52.94	3.86
Water	Traditional	73	15	20.55	19	26.03	2.71
Total	BSC	190	11	5.79	112	58.95	16.00
Total	Traditional	278	42	15.11	86	30.94	12.29

In each of the service functions, the traditional performance measurement organizations gathered information on more measures overall than the balanced scorecard organizations. In no function, however, did the set of traditional cities report a greater number of outcome measures than did the set of BSC cities. In two cases (fire and police) the differences in outcome measures were marginal; but in the other two functions (streets and water) the difference in favor of BSC cities was substantial.

An unanticipated discrepancy in efficiency measures reported by BSC and traditional organizations was discovered in this study. In every service function, the traditional performance measurement organizations reported a greater number of efficiency measures. Among these 14 cities, the traditional cities are reporting far more output measures, fewer outcome measures, and far more efficiency measures than their BSC counterparts.

IMMEDIATE/INTERMEDIATE OUTCOMES AND ULTIMATE OUTCOMES

While the tabulation of output, efficiency, and outcome measures provides useful information on the type of measures that each of the organizations reports, it fails to distinguish between important categories of outcome. Because many outcome measures focus on immediate or intermediate outcomes rather than ultimate outcomes, additional analysis is necessary to truly determine the extent of a given organizations' focus on results. Table 2 shows the breakdown of outcome measures into those addressing immediate and intermediate results and those addressing ultimate outcomes.

Table 2: Breakdown of Outcome Measures

Service Function	City Type	Total Outcome Measures	Immediate/Intermediate Outcome Measures	% Immediate/Intermediate Outcome Measures	Ultimate Outcome Measures	% Ultimate Outcome Measures	Ultimate Outcome Measures per Organization
Fire	BSC	31	16	51.61	15	48.39	2.14
Fire	Traditional	30	21	70.00	9	30.00	1.29
Police	BSC	22	18	81.82	4	18.18	0.57
Police	Traditional	21	12	57.14	9	42.86	1.29
Streets	BSC	32	10	31.25	22	68.75	3.14
Streets	Traditional	16	5	31.25	11	68.75	1.57
Water	BSC	27	12	44.44	15	55.56	2.14
Water	Traditional	19	9	47.37	10	52.63	1.43
Total	BSC	112	56	50.00	56	50.00	8.00
Total	Traditional	86	47	54.65	39	45.35	5.57

As shown in Table 2, the balanced scorecard organizations report a greater number of immediate and intermediate outcome measures overall (56) and a greater number of ultimate outcome measures overall (56) than their counterparts with traditional measurement systems (47 and 39, respectively). Once again, there is little evidence to suggest a lesser focus on results among BSC cities.

Some particular measures were common across the different performance measurement systems and were reported by cities in both sets. These are measures that, due to their frequency, might be described as “core” results measures. Examples of these measures are:

- Incidents rates (e.g., crimes per 1,000 population)
- Citizen satisfaction rates (e.g., percentage of citizens rating fire service as excellent/very good)
- Standard compliance (e.g., ISO fire suppression rating)

In both the fire and police service functions, there is very little difference across BSC and traditional systems in the ultimate outcome measures being reported. Neither function appears to

go much beyond the measures compiled for accreditation purposes, whether compiled from the BSC's four-perspective approach or not.

CONCLUSIONS

Critics feared that by adopting a balanced scorecard an organization might dilute its focus on results. Nothing in this study confirmed that such anxiety was warranted. The evidence from these 14 organizations suggests that BSC cities are at least as focused on outcomes as their more traditional counterparts.

The discrepancy in efficiency measures between the different performance measurement systems was an unexpected result. The evidence from this study suggests that focusing on the four BSC perspectives might inadvertently draw attention away from the measurement and reporting of efficiency. Local government officials who adopt the BSC approach to performance measurement but who nevertheless wish to retain an emphasis on efficiency in their organization should heed this caution. Steps to include more efficiency measures among the four perspectives of the BSC system might be necessary for officials who want to keep efficiency in the balance.

¹ Walters, 2000.

² Ho and Chan, 2002.

³ Ammons, 2002.

⁴ Kaplan and Norton, 1996. In contrast, private sector applications of the BSC provide balance between "short- and long-term objectives, between financial and non-financial measures, between lagging and leading indicators, and between external and internal performance perspectives" (p. viii).

⁵ Ammons, 2002.

⁶ Poister and Streib, 1999.

⁷ Ho and Chan, 2002.

⁸ Ho and Kidwell, 2000.

ACKNOWLEDGEMENTS

I would like to thank the members of my capstone committee—David Ammons, Bill Rivenbark, and Eric Peterson—for their time and insights throughout the capstone process. Without the expertise and support of these individuals, this study would not have been possible.

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Appendix A: Sample Performance Measures by Category

Outputs

Service Function	Sample Measure
Fire	Calls for service
	Fires within jurisdiction
	Square miles served
Police	Number of arrests
	Number of traffic citations
	Number of case reports processed
Streets	Number of street miles swept
	Number of projects completed
	Number of potholes repaired
Water	Number of water main repairs
	Number of customers billed
	Total system miles

Efficiency

Service Function	Sample Measure
Fire	Cost of services per capita
	Cost per incident
	Number of fire calls per engine
Police	Cost of services per capita
	Cost per incident
	Training cost per officer
Streets	Cost per lane mile swept
	Cost per square foot of patching
	Square feet of patching per crew
Water	Average cost for valves exercised
	Cost per thousand gallons
	Average cost per linear foot of main flushed

Immediate/Intermediate Outcomes

Service Function	Sample Measure
Fire	Response time
	Turnover rate
	Percent of firefighters who maintain EMT
Police	Response time
	Turnover rate
	Percent of calls answered within 30 seconds
Streets	Turnover rate
	Percent of staff receiving certification
	Number of routine sweeping requests per 1,000 customers
Water	Percentage of employees with certification
	Turnover rate
	Percent of operators certified

Ultimate Outcomes

Service Function	Sample Measure
Fire	Percent of fires confined to room of origin
	Number of fires per 1,000 structures
	Fire incidents involving non-structures per 1,000 served
Police	Crime rate per 1,000 residents
	Percentage of citizens feeling safe/moderately safe
	Youth drug felony rates per 1,000 youths
Streets	Pedestrian and bicycle accidents per capita
	Average pavement rating for residential streets
	Percent of lane miles in satisfactory condition
Water	
	Percent of water samples meeting water quality standards
	Service interruptions per 1,000 service connections

Appendix B: City Population and Size Categories (Based on 2000 Census)

Balanced Scorecard City	Population	Size Category
Hillsborough, North Carolina	5,446	Less than 15,000
Rockwall, Texas	17,976	15,000-49,999
Spotsylvania County, Virginia	90,395	50,000-99,999
Olathe, Kansas	92,962	50,000-99,999
Sarasota County, Florida	325,957	100,00-499,999
Miami, Florida	362,470	100,000-499,999
Charlotte, North Carolina	540,828	500,000+
Mean	205,148	-
Median	92,962	-

Traditional PM City	Population	Size Category
Hutchinson, Minnesota	13,080	Less than 15,000
Fishers, Indiana	37,835	15,000-49,999
Marietta, Georgia	58,748	50,000-99,999
Las Cruces, New Mexico	74,267	50,000-99,999
Bellevue, Washington	109,569	100,00-499,999
Laredo, Texas	176,576	100,00-499,999
Austin, Texas	656,562	500,000+
Mean	181,467	-
Median	91,918	-

Size Category	BSC	Traditional
Less than 15,000	1	1
15,000-49,999	1	1
50,000-99,999	2	2
100,000-499,999	2	2
500,000+	1	1
<i>Total</i>	7	7

Appendix C: Balanced Scorecard Statistics

BSC City	Service Function	Total	Efficiency	% Efficiency	Outcome	% Outcome
Charlotte, North Carolina	5	0	0.00	4	80.00	5
	11	0	0.00	9	81.82	11
	24	0	0.00	7	29.17	24
	17	0	0.00	0	0.00	17
Hillsborough, North Carolina	12	1	8.33	6	50.00	12
	5	0	0.00	2	40.00	5
	10	1	10.00	5	50.00	10
	7	2	28.57	3	42.86	7
Miami, Florida	3	0	0.00	3	100.00	3
	5	0	0.00	0	0.00	5
	0	0	0.00	0	0.00	0
	0	0	0.00	0	0.00	0
Olathe, Kansas	10	2	20.00	7	70.00	10
	7	2	28.57	5	71.43	7
	12	0	0.00	12	100.00	12
	7	0	0.00	7	100.00	7
Rockwall, Texas	4	0	0.00	2	50.00	4
	2	0	0.00	1	50.00	2
	3	0	0.00	3	100.00	3
	2	0	0.00	2	100.00	2
Sarasota County, Florida	4	0	0.00	4	100.00	4
	1	0	0.00	1	100.00	1
	2	0	0.00	2	100.00	2
	8	0	0.00	7	87.50	8
Spotsylvania County, Virginia	6	1	16.67	5	83.33	6
	5	1	20.00	4	80.00	5
	8	0	0.00	3	37.50	8
	10	1	10.00	8	80.00	10
TOTALS	190	11	5.79	112	58.95	190
Mean	6.79	0.39	5.08	4.00	63.70	6.79
Median	5.5	0	0.00	3.5	75.71	5.5

Appendix D: Traditional Performance Measurement Statistics

Traditional PM City	Service Function	Total	Efficiency	% Efficiency	Outcome	% Outcome
Austin, Texas	Police	13	2	15.38	4	30.77
	Fire	11	2	18.18	2	18.18
	Streets	24	6	25.00	3	12.50
	Water	22	7	31.82	6	27.27
Bellevue, Washington	Police	18	1	5.56	5	27.78
	Fire	13	0	0.00	8	61.54
	Streets	18	3	16.67	9	50.00
	Water	20	4	20.00	5	25.00
Fishers, Indiana	Police	15	3	20.00	11	73.33
	Fire	7	1	14.29	5	71.43
	Streets	1	0	0.00	1	100.00
	Water	1	0	0.00	1	100.00
Hutchinson, Minnesota	Police	5	0	0.00	4	80.00
	Fire	12	0	0.00	2	16.67
	Streets	6	0	0.00	0	0.00
	Water	2	1	50.00	0	0.00
Laredo, Texas	Police	4	0	0.00	0	0.00
	Fire	7	2	28.57	0	0.00
	Streets	14	3	21.43	3	21.43
	Water	12	2	16.67	3	25.00
Las Cruces, New Mexico	Police	8	0	0.00	3	37.50
	Fire	2	1	50.00	1	50.00
	Streets	2	0	0.00	0	0.00
	Water	4	1	25.00	0	0.00
Marietta, Georgia	Police	11	1	9.09	3	27.27
	Fire	10	2	20.00	3	30.00
	Streets	4	0	0.00	0	0.00
	Water	12	0	0.00	4	33.33
TOTALS		278	42	15.11	86	30.94
Mean		9.93	1.50	13.84	3.07	32.82
Median		10.5	1	14.84	3	27.27

Appendix E: Balanced Scorecard Outcomes

BSC City	Service Function	Outcome Total	Immediate/Intermediate	% Immediate/Intermediate	Final/Result	% Final/Result
Charlotte, North Carolina	Police	4	2	50.00	2	50.00
	Fire	9	9	100.00	0	0.00
	Streets	7	2	28.57	5	71.43
	Water	0	0	0.00	0	0.00
Hillsborough, North Carolina	Police	6	3	50.00	3	50.00
	Fire	2	2	100.00	0	0.00
	Streets	5	3	60.00	2	40.00
	Water	3	2	66.67	1	33.33
Miami, Florida	Police	3	1	33.33	2	66.67
	Fire	0	0	0.00	0	0.00
	Streets	0	0	0.00	0	0.00
	Water	0	0	0.00	0	0.00
Olathe, Kansas	Police	7	4	57.14	3	42.86
	Fire	5	3	60.00	2	40.00
	Streets	12	0	0.00	12	100.00
	Water	7	4	57.14	3	42.86
Rockwall, Texas	Police	2	1	50.00	1	50.00
	Fire	1	1	100.00	0	0.00
	Streets	3	2	66.67	1	33.33
	Water	2	1	50.00	1	50.00
Sarasota County, Florida	Police	4	2	50.00	2	50.00
	Fire	1	0	0.00	1	100.00
	Streets	2	0	0.00	2	100.00
	Water	7	0	0.00	7	100.00
Spotsylvania County, Virginia	Police	5	3	60.00	2	40.00
	Fire	4	3	75.00	1	25.00
	Streets	3	3	100.00	0	0.00
	Water	8	5	62.50	3	37.50
TOTALS		112	56	50.00	56	50.00
Mean		4.00	2.00	45.61	2.00	40.11
Median		3.5	2	50.00	1.5	40.00

Appendix F: Traditional Performance Measurement Outcomes

Traditional PM City	Service Function	Outcome Total	Immediate/Intermediate	% Immediate/Intermediate	Final/Result	% Final/Result
Austin, Texas	Police	4	2	50.00	2	50.00
	Fire	2	2	100.00	0	0.00
	Streets	3	0	0.00	3	100.00
	Water	6	3	50.00	3	50.00
Bellevue, Washington	Police	5	2	40.00	3	60.00
	Fire	8	4	50.00	4	50.00
	Streets	9	2	22.22	7	77.78
	Water	5	2	40.00	3	60.00
Fishers, Indiana	Police	11	9	81.82	2	18.18
	Fire	5	1	20.00	4	80.00
	Streets	1	1	100.00	0	0.00
	Water	1	1	100.00	0	0.00
Hutchinson, Minnesota	Police	4	3	75.00	1	25.00
	Fire	2	1	50.00	1	50.00
	Streets	0	0	0.00	0	0.00
	Water	0	0	0.00	0	0.00
Laredo, Texas	Police	0	0	0.00	0	0.00
	Fire	0	0	0.00	0	0.00
	Streets	3	2	66.67	1	33.33
	Water	3	2	66.67	1	33.33
Las Cruces, New Mexico	Police	3	2	66.67	1	33.33
	Fire	1	1	100.00	0	0.00
	Streets	0	0	0.00	0	0.00
	Water	0	0	0.00	0	0.00
Marietta, Georgia	Police	3	3	100.00	0	0.00
	Fire	3	3	100.00	0	0.00
	Streets	0	0	0.00	0	0.00
	Water	4	1	25.00	3	75.00
TOTALS		86	47	54.65	39	45.35
Mean		3.07	1.68	46.57	1.39	28.43
Median		3	1.5	50.00	1	21.59

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Last Printed On: 4/13/2009 1:57:00 PM
As of Last Complete Printing
Number of Pages: 15
Number of Words: 3,686 (approx.)
Number of Characters: 21,016 (approx.)