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The Application of Performance Indicators in Public Administration: A
SEFAZ – Bahia Case Study

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1. Introduction

Since the 1980s processes of modernization and reorganization of governments have been initiated in diverse countries in the world. The society has demanded greater efficiency in rendering of services, a better application of public resources and also questioned the effective bureaucratic model. In this context, the model of managing government gains force. Flexibility, creativity, decentralization, autonomy of management, and a management contract used as control instrument are basic characteristics of the management reforms that focus on results.

The gauging of results in public administration requires the clear definition of objectives and goals for the organization, as well as the implementation of a performance measurement system that starts to be an indispensable tool in a management administration. Countries such as Great-Britain, New Zealand and United States have carried through great investments in the implementation of performance measurement systems. In Brazil, from the 1990s, with the Reformation of the State, diverse public organizations have implemented systems for result's measurement.

The implementation of a performance measurement system requires a series of actions that reverberate in all areas of the organization, involving political, cultural and communication aspects, and also a complex system of information technology. The Secretariat of Finance of Bahia State – SEFAZ Bahia - has constructed over the last years a large performance indicator system involving all areas of the organization. These pointers include both financial and not financial measurements, qualitative results and aspects related with the flow of processes and attention to the customer.

The SEFAZ Bahia indicator system is part of the modernization process, initiated with the process redesign and supported by massive investments in Information Technology. This process supports management focusing on results.

The objective of this study is to evaluate the application of performance indicator in public administration, based on a study of Sefaz – Bahia case. First, the paper discusses the experiences around the world, specifically in France, Great Britain, New Zealand and,

more so, in the United States. The paper talks also about the experience of Brazil's public administration. Secondly, the paper talks about the definitions and theoretical concepts related with performance indicators, and the challenges to implement a performance measurement system in public organizations.

In the third part the study describes the indicator system applied in SEFAZ. It intends to analyze the indicators and the attributed goals, its adequacy to the organizational objectives and its effectiveness as an instrument of performance improvement. The difficulties to implement the system and the positive and negative aspects of the applied methodology will be analyzed as well.

Last, in the conclusion, the study will provide data about the using of the SEFAZ Bahia indicator system as a management tool. The system is still improving but the changes in the organizational culture are the main contribution of these process. Nowadays, the most important challenge is to improve the correct use of the indicators, avoiding its under-utilization.

2. History of performance measurement in public administration

2.1. Experience in the world

Performance measurement in public administration appeared together with proposals for state reform, looking for defining results for government actions through administration contracts between the central government and units of the public administration.

The international experience in terms of administration contract remounts to 1967, in France, when the Nora Report was published. In this report an inter-ministerial committee proposed the use of contracts in order to combat the inefficiency in the administration of the state companies, granting larger administrative flexibility. In 1969 the first contracts were signed with the concessionary companies of public services of transport - *Société Nationale des Chemins de Fer, SNFC* - and energy - *Electricité of France, EDF*. In the end of the 1970s the practice gained more force. The contracts, called Contracts of Company, defined agreements between the parts based on productivity indicators and results. In

1990 the practice reached the central administration through the "centers of responsibility" applied internally in the ministries. In these contracts, the department of the direct administration gained operational flexibility, budget endowment and freedom in personnel's administration. The central administration used performance indicators and methods of result's evaluation to observe the working of the department (Santos and Cardoso 2001, p. 16).

In the United Kingdom the experience of administration contracts and performance evaluation in public organizations began in the decade of 80s with the project Next Steps Program. The program motivated competition among the agencies of the administration, looking for a relationship similar to the market. The agencies designated to exercise the government's executive functions are appraised for performance. The annual planning process defines goals and the budget of the subsequent exercises is affected by the obtained results. Starting from 1991, the Thatcher Government launched the program Citizen's Charter and more than 10 thousand performance contracts were established. The program instituted an award system for the quality of public service's rendered. It also established criteria of service evaluation and criteria for publicizing results (Santos and Cardoso 2001, p. 17).

In the end of 1998 the government of United Kingdom started using Public Service Agreements, internalizing in the ministries and departments the application of administration contracts and the use of goals and performance indicators. In The Blair Government, the program Service First - The New Charter Program – was launched improving the original program. According to Santos and Cardoso one of the flaws identified in the original program was the excessive concentration of indicators in the internal processes, and not in the effective results. In 1998 only 15% of the goals of Public Service Agreements were defined based in outcomes, while 51% were based in processes and 27% in outputs. In 2000, 68% of the goals were fastened with base in outcomes, 13% in outputs and only 14% in processes, giving a more strategic vision to the evaluation process (Santos and Cardoso 2001, p. 19).

In New Zealand the application of goals and performance indicators are directly linked to the strong reform of the state which has occurred over the last 20 years. The process began in 1986 with the creation of State Owned Enterprise that prepared the state

companies for the privatization process that happened between 1987 and 1990. Starting in 1992, they created Crown Entities, that are autonomous entities that act in the execution of operational and regulatory functions of the state, in areas such as education, scientific research and public health. Those institutions operate according to documents that specify goals, objectives and gauging mechanisms. The restructuring of the neo-Zealander public service public was one of the most radicals reforms implemented in the world. It was accompanied by a downsizing process that reduced the number of public servants by 53% and it affected the Welfare State deeply. The use of performance indicators were most based in outputs whose goals were defined for the own monitored agencies. The outcomes were defined for the ministries. The lack of synchronization among those indicators affected seriously the quality of public service (Santos and Cardoso 2001, p. 21).

2.2. Experience in the United States

In the United States, the systematic use of performance evaluation in the federal government was implemented with the approval by the American National Congress of the law known as GPRA - Government Performance and Results Act. The GPRA created a performance planning and accountability framework in order to clarify the missions and goals of each agency, and to measure the performance through annual reports.

The GPRA focuses on result evaluation and government accountability is based on four points: elaboration of strategic planning, presentation of performance plans and annual reports, managerial accountability and flexibility, and performance budgeting (budget addressed to results).

Each agency must develop a strategic plan for a period of five years and submit it for approval of Congress and the Office Management and Budget (OMB). That strategic plann should contain the organization objectives and a description of the necessary resources to reach those objectives. Annually the agencies are forced to present operational plans and performance reports that should contain: establishment of quantified goals, definition of the

performance indicators used, description of the human, financial and technological resources used and comparison of the results reached with the established goals.

Managerial flexibility is one of the instruments used by GPRA for encouraging managing for results in the public organizations. The performance plans can propose temporary suppression of administrative controls, and also alterations in personal remuneration.

Last, GPRA applies the budget elaboration guided for results. On the last fifty years the American government has discussed alternatives for public budget elaboration (Freitas 1999, p. 100). Some initiatives looked for relating the allocation of resources with the results of government programs, but they were limited to measuring inputs and outputs. GPRA addresses the focus for the evaluation of effective outcomes.

One important foundation of GPRA is called Performance-Based Management which consists of the use of performance indicators in the decision process. However, the application of performance indicators in public management faces several dilemmas. The first dilemma is the difficulty in choosing between outputs and outcomes. The second one is the difficulty of measuring if the results are the consequence of the program or influenced by other external factors. Besides, the fragmentation and overlap of government actions hinders the establishment of the goals and the measuring of the results of each agency.

According to Freitas, from an analysis of GPRA, it is possible to highlight some important lessons:

- The improvement of the government actions depends, fundamentally on the correct evaluation of their effects, not in inputs, but in outputs and outcomes.
- The process of evaluation of organizational performance is complex and demands a long implementation period.
- The integration between Executive and Legislative power is extremely important for the success of a program. This integration improves the government's performance as well as the government's accountability. (Freitas 1999, p. 118).

In 2002, OMB - Office Management and Budget developed the PART – Program Assessment Rating Tool. The PART created a management system in order to evaluate the performance of program activities of federal programs. “By linking the GPRA and the PART processes, the federal government has moved a long way toward assessing the performance of program activities and focusing on their contribution to an agency’s achievement of its strategic and program performance goals. There is now much greater emphasis on developing performance measures according to outcome-oriented standards.” (Keevey 2005, p. 153).

2.3. Experience in Brazil

In Brazil the use of performance indicators in the public sector began with the implementation of Management Contracts. Through these contracts the institution assumes managerial commitments with the government. These contracts also establish goals for the agencies.

The first proposal for implementation of Management Contracts in Brazil was made for the federal company which was responsible for the rail transport – *Rede Ferroviaria Federal* - in 1983. In 1991 the federal government announced a program to improve the management on state companies called *Programa de Gestao das Empresas Estatais (PGE)* in order to foment the process of modernization in public administration. This program monitors the companies through performance goals and indicators of productivity, giving larger administrative autonomy, and concentrating the government control on the results.

In 1992, through a decree, the Federal Government established conditions for celebration of management contract with *CVRD – Companhia Vale do Rio Doce* - the largest national steel industry. In 1994 another decree disposed about the contract conditions with PETROBRAS, the state oil company. Those two contracts are designed to eliminate restrictive factors to business action of these companies, granting larger administrative flexibility. The contracts established an administration for results by defining goals which must be checked through indicators and through a defined evaluation system.

The program called *PDRAE – Plano Diretor de Reforma do Aparelho do Estado* – launched in 1995, is the conceptual mark of the reform of the public administration which is focused on results as well as the principle citizen-customer. One of the main instruments of PDRAE is PQSP – *Programa de Qualidade no Serviço Público* – a program that intends to improve the quality of public services, coordinated by the Ministry of Planning. The program calls attention to the public organizations for the need of improvement of the administration quality, and to foment the use of indicators to monitor quality.

Research accomplished by Galvão evaluated the application of performance indicators in 209 Brazilian federal organizations which are participants of PQSP. The study analyzed if the practices of performance measurement had the ideal characteristics, taking as theoretical referential the Balanced Scorecard (BSC) of Kaplan and Norton. The research pointed that most of the organizations accomplished systematic measurements of performance. But, almost half of the systems were not properly balanced in the four dimensions proposed by BSC - financial, customers, internal processes and learning and organizational growth (Galvao 2002, p. 9).

According to Galvao the research also pointed that the systems were more balanced in organizations that had more time of adhesion to PQSP, which is an exciting result, considering that the organizations only recently implemented this administrative reform (p. 9). However, the low use of performance indicators by the high administration in the decision process and the absence of the systematic practice of monitoring goals based in indicators are important fragile points of PQSP implementation.

The Constitutional Amendment 19 issued in 1998 incorporated to the constitutional text the application of management contracts. According to this law, the managerial, budget and financial autonomy of agencies of direct and indirect administration can be enlarged through the use of management contracts. A specific law must define the criteria for establishing the goals and the process of performance evaluation. The alteration in the legislation made possible for the government to apply management contracts to departments of the central administration.

Two projects were created based on the constitutional alteration: the Executive Agencies and the Social Organizations. The Executive Agencies would be created by the transformation of public organizations which are responsible for rendering services considered typical of state, as defined in PDRAE. The agencies would be organizations focused on results, aligned with government's guidelines and the societal demands. The Social Organizations would make possible the decentralization of services that are not characteristic of the state, transferring them to the called no-state public section. They are services that should be subsidized by the State such as education, health, culture and scientific research (Santos and Cardoso 2001, p. 20).

Also, the regulatory agencies have their operation based on a management contract. Institutions as *ANEEL – Agencia Nacional de Energia Eletrica* – responsible for the electric energy sector, instituted in 1996 and *ANVISA – Agencia Nacional de Vigilancia Sanitaria* – responsible for the sanitary surveillance, instituted in 1999, have their administration guided by results. The agencies have administrative autonomy, but they are subject to the acting evaluation defined by law. The noncompliance or not reaching established goals subjects the agency to penalties according to the specific management contract.

According to Santos and Cardoso (2001, p. 27), similar to all innovation, the management administration contract will only become a concrete alternative for improving the public administration if it can overcome the tendency of formalism which is present in the Brazilian Public Administration. In the same way, the performance evaluation and the improvement of the accountability of the institutions need more than normative and technical instruments, but also demand the development of new patterns of behavior and of a managerial capacity still insufficient in most organizations.

3. Performance Measurement - theoretical concepts

3.1. Important definitions

“Performance measurement is a systematic ongoing process to assess how well an organization or program is doing its job. It applies objective (typically quantitative)

information to help managers and customers determine whether the expected results are being achieved” (Public Knowledge Inc. 2004, p. 1). The process involves the selection, definition and application of performance indicators, which quantify the efficiency and effectiveness of the service rendered, based on inputs, outputs and outcomes.

Performance measurement and evaluation are different but complementary. The European Commission (Davies 1999, p. 152) defines performance measurement as “a continual process carried out during the execution of the program, with the intention of immediately correcting any deviation from operational objectives. Evaluation, on the other hand, is specifically conducted at a discrete point in time in the life cycle of a program, and consists of an in-depth study”. According to Davies they differ by the nature of the questions: “evaluation asks the “why and how” questions, whereas performance measurement asks the “what” questions” (Davies 1999, p. 152).

Some important definitions, according to the Government Performance and Results Act of 1993, include:

Input: measures of what an agency or manager have available to carry out the program or activity. These can include: employees, funding equipment or facilities, supplies on hand, good or services received, work processes or rules.

Output: a tabulation, calculation or recording of a program activity or effort that can be expressed in a quantitative or qualitative manner such as number of cases opened or number of children immunized.

Outcome: an assessment of the results of a program compared to its intended purpose, such as a number of cases with convictions.

Performance goal: a target of performance expressed as a tangible, measurable objective, against which actual performance can be compared, including a goal expressed as a quantitative standard, value or rate.

A performance indicator is a number that measures an aspect of the program’s action. However, a number is only understood as an indicator if it transmits information about the aspect in analysis. So, it must be compared with patterns or goals previously established, or with results of other similar organizations.

As important as the definition of the indicators is the definition of the goals that should be appropriate and realistic, otherwise the presented results can express a false reality. The organization is not motivated to try to reach overestimated goals. Underestimated goals

may give the false impression that the organizational performance is better than it is in reality.

It is very important too to understand the difference between the concepts of efficiency and effectiveness. Efficiency is the capacity of production of goods or services with the rational use of the necessary inputs. Effectiveness is the degree of reaching the established goals. Effectiveness is understood as the level of satisfaction of needs and desires of the society for the services rendered by the institution.

The performance evaluation of a public program is intimately linked to the definition of the mission, objectives and goals of the organization. The creation of a performance indicator system depends on several actions (Ghisi 2000, p. 6):

- Definition of the vision and mission of the organization.
- Definition of the strategic objectives of the organization.
- Understanding of the critical factors for the reach of those objectives.
- Elaboration of a map that contains the main products or services rendered by the organization.
- Selection of a group of indicators starting from the aspects previously analyzed.
- Fixation of goals related of each indicators.

According to Peixoto (2004), several aspects must be analyzed in order to construct an appropriate indicator system. The main attributes of the indicators are:

Adaptability - capacity to answer to the changes of demands and behavior of the customers. The indicators can become unnecessary along the time and they must be eliminated immediately or substituted by others that are more useful.

Representation – related to the most important and critical stages of the processes, in the right way, in order to be sufficient and representative. Unnecessary data or inexistent data should not be collected. In compensation, important data should be necessary to reach the objectives and be obtained from the correct source. This attribute deserves certain attention, because indicators that are very representative tend to be more difficult to be obtained. Therefore, there is a certain balance between the representation and the availability for collection.

Simplicity – easily understood and applied by the executioners and also, by the people that will receive their results. The names and expressions should be known and understood by all involved on the process in a homogeneous way, guaranteeing wide validity for all the organization.

Traceability – easily identifying the origin of data, its registration and maintenance. Whenever possible, it is interesting to have the indicator presented in graphs, what allows the comparison with previous actions.

Availability – easy access to collection data. The data must be available on time, available for the right people and must be without distortions. There is no use for information that is correct but late and not up-to-date. And also, there is no use for information that is current and correct but available for the wrong person.

Economy – it is not appropriated to spend too much time seeking data, much less researching or awaiting new collection methods. The benefits brought with the indicators should be larger than the costs for measuring. If not, in time the organization will be measuring its own bankruptcy.

Practicability - it guarantees that it really works in practices and it supports the management decision process. In that, it should be tested in the field and if necessary, modified or excluded.

Stability - it guarantees that the indicator is generated in a routine process and this process is not modified allowing the formation of historical sequences. (Peixoto 2004, p. 15)

3.2. Why use performance measurement

Performance measurement is one powerful tool available to be used to improve government management. There are many good reasons for public organizations to measure performance. If done well, performance measurement can achieve many benefits like those identified below.

“Provide accountability to the public and higher levels of authority. It is a way to communicate success, or lack thereof, to constituencies with an interest in the program. It helps demonstrate what works well and what does not.

Stimulate public interest. If measures of performance are communicated to the public, many citizens will feel that they have a better understanding in how government services are doing, and citizens may become more involved as a consequence.

Foster dialogue to clarify program logic. Thinking about performance measures causes policy-makers, managers, and staff to ask “why are we doing this?” and to sometimes challenge traditional methods and assumptions. This benefit is often more evident when outsiders, less familiar with the program, participate along with insiders in formulating the measures.

Help motivate employees. Most people like to be part of a winning team. But one can tell that the team is winning only if someone is accurately keeping score. Even if the results are not as good as hoped (the team is behind in the score), the team members are likely to be more strongly motivated when they know where

improvement is needed than if this is unclear. “What gets measured is what gets done” is perhaps the most often repeated mantra of performance measurement.

Focus policy discussion on results. Policy discussions (for example, in legislative committees) are constrained by the type, quality, and amount of information available. Where good information on program performance is lacking, there is an unfortunate tendency for these discussions to rely on speculation and anecdotes and to orient toward process issues and implementation details. Good performance measures can lift the considerations of policy-makers to larger questions of program design, outcomes, and efficiency.

Identify opportunities for improvement. If performance shortfalls are identified early, the agency can take timely corrective actions and evaluate the effect of the actions.

Guide management in allocating resources. Good performance measurement can provide valuable input for budget and planning processes. It can assist policy-makers and managers to judge where they may get the best, or at least better, returns on investment.

Build political support. It is a legitimate use of performance measures for managers to use them to develop program understanding among key constituencies, with the aim sustaining or increasing the funding for a program.

Assure compliance with requirements. Many state and local governments now require their departments and agencies to prepare performance measures. The requirements may originate in statutes, ordinances, rules, or executive directives. Often, performance measures are required in budget submissions.” (Public Knowledge Inc. 2004, p. 5:6)

4. Difficulties facing implementation of performance measurement in public organizations

According to Newcomer (2003, p. 330), in order to implement a performance measurement system in a public organization, “there are four sets of challenges to managers: communication, analysis, measurement and political”.

The managers responsible for implementing the system must communicate clearly and frequently with all stakeholders involved in the processes. The communication with the high administration is necessary to keep the system correctly aligned with the strategic objectives of the organization. The managers of the involved areas need to have correct understanding of the indicators and the way their activities affect each indicator. All the managers must be informed appropriately about the indicators and the goals established. It is necessary also that there is a communication channel with other public organizations or even non-government organizations whose activity affects the services rendered by the

state. In short, it is necessary to have a clear communication with all of the agents that direct or indirectly contribute to reaching the proposed goals.

“The analytical capacity to map program logic accurately and to conceptualize appropriate outputs or outcomes to measure is a second fundamental challenge for those charged with measuring performance of public programs” (Newcomer 2003, p. 333). Only starting from a necessary and systemic analysis of the organization, its mission and objectives, is it possible to identify what should be measured. The evaluation can concentrate on the inputs and outputs, or in the outcomes, following a line guided for administration for results.

“The ability to design and use relevant and sufficient measures to capture program performance depends on analytical capacity but extends further as staff responsible for performance measurement must also know how to verify the accuracy and reliability of performance data.Finally performance measurement efforts will only be successful if there is sufficient political capital to involve the pertinent stakeholders, and to convince the pertinent political leaders that the performance data should be used to guide managerial decision making” (Newcomer 2003, p. 337).

According Junes and Holzer, the utilization of performance-measurement information is a process in which at least two stages can be identified – adoption (development of measures) and implementation (actual use) (Junes and Holzer 2001, p. 703). They concluded “that adoption is more heavily influenced by rational/technocratic factors, and implementation is more heavily influenced by political/cultural factors”. In their opinion, “as an organizational innovation, performance measures are expected to create uncertainty because of the risk involved”, and this uncertainty can lead to resistance (p. 701:702). According to their findings, when the policy of using performance measures comes from within the organization as an internal requirement, performance measures are more likely to be adopted (p. 701:702).

In spring 1997 Junes and Holzer conducted a survey about the use of performance measurement in state and local governments in the USA. They concluded that efficiency measures and outcome measures were less extensively developed than output measures for programs in public organizations. 31% of the respondents said output measures had been developed for many programs, while 14% said they had been developed for all programs. In contrast, only 17% said that efficiency measures had been developed for

many programs while 7% said they had been developed for all programs. Comparatively, more respondents stated that outcome measures had been developed for programs in their organizations: 21% for many programs and 8% for all programs (Junes and Holzer 2001, p. 699). In conclusion, it is easier to concentrate the measurement on the internal processes of the organization, focusing on inputs and outputs than look for indicators that represent the outcomes the society demand.

Junes and Holzer suggest some actions to be facilitate the process of adoption and implementation of performance indicators:

- Conduct an assessment of organization's "readiness" to develop and implement performance measurement. This may reveal the level of knowledge in the organization about the usefulness of performance-measurement information, the level of support for performance measurement, and the condition of the organization as it relates to its culture, resources and expertise.
- Identify and involve the organization's internal and external interests groups.
- Involve employee unions.
- Support the adoption of performance measures even if the organization is not able to implement performance measures in a short period of time. The awareness and culture that the adoption of performance measures can create may help improve the chances for implementation later on.
- Emphasize the need to develop a "performance improvement" culture." (Junes and Holzer 2001, p. 703)

For Davies the most important aspect "is that performance measurement cannot be forced on people" and that "the success of a performance management process depends on the credibility it has with those who are involved". He concludes that "the principles that guide the process and the rules must be laid out, discussed, and agreed to with all participants" (Davies 1999, p. 157).

5. Performance measurement in SEFAZ Bahia – a case study

5.1. History

The Secretariat of Finance of Bahia State (SEFAZ Bahia) has two basic functions: the tributary administration of the tax included on the state's competence and the financial administration of the state's resources. The ICMS is the most important tax for the state,

responsible for 49% of the financial resources. Another 25% of resources are originated from transfers from the Federal Government.

The SEFAZ Bahia defines itself like (SEFAZ, 2005):

Mission: to provide and to administer the public resources to make possible the financial development of the State.

Vision: to reach the excellence in the tributary administration, being recognized as an innovative and efficient organization, that values its professionals and is guided by transparency, ethics and social responsibility.

Business: Tax administration, Reception of Resource and Control of the Public Finances.

Global goals:

- Real collection growth.
- Maintenance of the financial equilibrium of Bahia State.
- Improvement on quality of public spending.

Since 1995, through a program financed by the Inter-American Development Bank, SEFAZ Bahia has been changing its management processes looking for a managerial public administration. Among other principles like flexibility, creativity, incentive for innovations, orientation for results, intensive use of information technology, the evaluation of results has been one of the most important tools for improving the organizational performance.

The Secretariat of Finance of Bahia State (SEFAZ Bahia) started to measure organizational performance in 1996. On this first moment the focus was on financial results, specifically in amount of tax collection. Goals were defined for each regional unit and a computerized system was developed for measuring and allowing the managers to follow the execution of those goals. The reaching of the goals became a main focus of the organization attention. Meetings that took place every three months with the whole staff of

the organization verified the reaching or not reaching of the goals. In those meetings, the results were analyzed.

That system of collection goals and gauging of results was implemented on the same time that a work of market segmentation. The work of market segmentation made possible SEFAZ Bahia to know more deeply its business. On this model, just the regional tributary units were responsible for the goals. In the four years in that the model worked, it was verified that the financial result was not only a consequence of the managerial effort of the units. External factors for the organization, as macro-economic factors, affected the financial results and distorted the analysis about the managerial effort. Not always were the best results reached by the units better managed. Similarly, the bad results were not necessarily a consequence of bad administration. Just in 2000 there was the first change in that model.

In 2000 non-financial performance indicators were created for the tributary regional units. Those indicators complemented the performance analysis of each, but the financial results were still the main parameter of performance. The indicators were created by the Department of Planning, looking to cover all the important aspects of the activities that impact on the performance. There were productivity indicators, quality indicators and also indicators of results. The responsibility for the results was only charged from the tributary regional units. Each indicator had a weight that composed a final score. That final score was composed with the financial result and it generated a performance ranking of the units. In this final performance evaluation the financial result had a weight of 90%, while the non-financial indicators represented 10%.

In 2001 a financial prize was created for all servants, called PDF “Premio por Desempenho Fazendário”. The payment of this prize depends on the result evaluation. The evaluation is made in the same previous proportion: 90% from financial results and 10% from non-financial indicators. The tributary regional units are evaluated and their workers rewarded depending on its performance. The workers of others units were rewarded depending on the performance of the entire organization.

In 2003 SEFAZ Bahia did the last alteration in the performance evaluation system, trying to correct the failures identified on the previous processes. Basically, the change extended

the system to all areas of the organization, creating indicators for most important activities. The process of implementing was modified too, designed to provide a discussion with the managers responsible for the results. The goals were defined for each indicator and a previous methodology of applying different weights for each indicator was modified. That alteration configured the system of performance indicators in the form it is today.

The implementation process of performance indicators at SEFAZ – Bahia was motivated by internal factors. There is no external pressure by the executive or legislative power, obligating SEFAZ Bahia to use this tool. The indicator system was created by the department responsible for the planning of the tributary area and after was approved and supported by the high administration, which extended the system for the entire organization. In this process the definition of the indicators, parameters and goals was discussed among the several departments involved.

Analyzing the process described, it is possible to say that the implementation of indicators in SEFAZ Bahia had several important positive aspects: the absence of external requirements, the approval and the support by the high administration, and the discussion among the several areas involved. Another important aspect is the progressive implementation, which allowed the organization to learn with the experience, improving the system along the last eight years.

5.2. Description of the performance indicator system of SEFAZ Bahia

The indicator system of SEFAZ Bahia is defined based on the organizational strategic planning and the different areas of activity.

About the aspect of organizational structure, SEFAZ Bahia has four hierarchical levels. Most of the indicators are related to the lowest level. The indicators related to a higher hierarchical level consists of the group of all indicators related to the lower level linked to the first. On the tributary area some indicators are shared for the area responsible for the planning and the other responsible for the execution of the activity. In this study, we will consider SEFAZ Bahia shared in five big areas:

- Tributary Area - responsible for tributary administration of the taxes.
- Financial Area – responsible for managing the state financial resources, including the money transfers for all institutions of the government.
- Management Development – responsible for organizational development and technological modernization.
- Administrative Area – responsible for the administrative and financial internal activities of SEFAZ, related to human resources, material, patrimony and general services.
- Internal Control – responsible to monitor the legal aspects of the financial and administrative fact on SEFAZ and all the others units of the direct administration.

The definition of the indicators is based on the strategic planning of SEFAZ Bahia. Based on it, several macro-objectives were defined and for each one there were strategies to reach the macro-objectives. The indicators are linked for each strategy. For example, the indicators related to Secretary Office are defined below:

Area: Secretary Office

Macro-objective: to maintain the fiscal balance equilibrium.

Strategy 1: to improve financial primary result of the state.

Indicator 1: rate between fiscal incomes and fiscal expenses.

Goal: 1.08.

Strategy 2: to monitor level of debt.

Indicator 2: rate between net income and total net debt.

Goal: 0.5.

The table 1 presents the macro-objectives of each area and the amount of indicators related to them.

Table 1 - Macro-objectives and quantity of indicators.

Area	Quant of indicators	Macro-objectives	Quant of indicators
Secretary Office	2	To maintain fiscal balance equilibrium;	2
Internal Control	8	To care for quality of public expenditure;	3
		To perfect the preventive and corrective internal control acting;	5
Tributary Area	44	To increase spontaneous tax collection;	19
		To increase tributary credit recovery;	14
		To provide larger velocity to administrative process;	7
		To improve the quality of administrative process;	4
Financial Area	10	To optimize administration of state public resources;	10
Management Development	15	To improve people's management;	4
		To improve quality of customer service;	6
		To enlarge use of information technology;	5
Administrative Area	5	To improve organizational infrastructure;	1
		To provide larger velocity and quality to support activities;	2
		To improve rate collection/expenditures;	2
Total	84		

Each indicator has a goal associated to its results and the performance measurement compares the result obtained with the stipulated goal. The rate between these two values is the percentile of reaching the goal. In some cases, that percentile can be superior to 100 percent, when the results are higher than the established goals. The evaluation of the department is made by the group of indicators attributed to that level of the organizational structure. The final result is the arithmetic average of the rates between result and goal of all the indicators.

That methodology allows the possibility of compensation among the results of the several indicators related to a specific area. In this case, a bad performance in some activity, expressed by a low value of some indicator, may be compensated by an excellent performance in other area.

The evaluation of performance is done every three months. The results are measured and presented in a large meeting. The remuneration of the servants is affected by the performance of the area where the worker is related. The *PDF "Premio por Desempenho Fazendário"* represents approximately 35% of the total incomes of the worker.

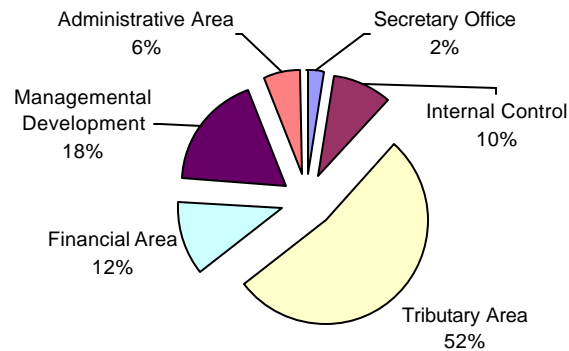
Information on the indicators is available on a computerized system that concentrates all the performance results, denominated *SIG – "Sistema de Informacoes Gerenciais"* - and complemented by data available on others systems of SEFAZ Bahia. Some indicators have their data loaded automatically in SIG. For these, the figures are updated daily, and it allows the managers to follow the performance of the area. Others indicators are calculated in the end of the period, because they depend on manual collection of data.

The procedure adopted to create the indicators was made according to recommendations of several authors. The definition of the indicators is based on the mission and strategic objectives of the organization. This criterion ensures that the indicators are aligned with the focus of SEFAZ Bahia, and able to be a powerful management tool for the administration.

5.3. Critical analysis of the performance indicator system of SEFAZ Bahia

Analyzing the distribution of the indicator's quantity among the several areas of activity, it is possible to identify that there is a concentration in the tributary area.

Fig 1 - Indicators per area



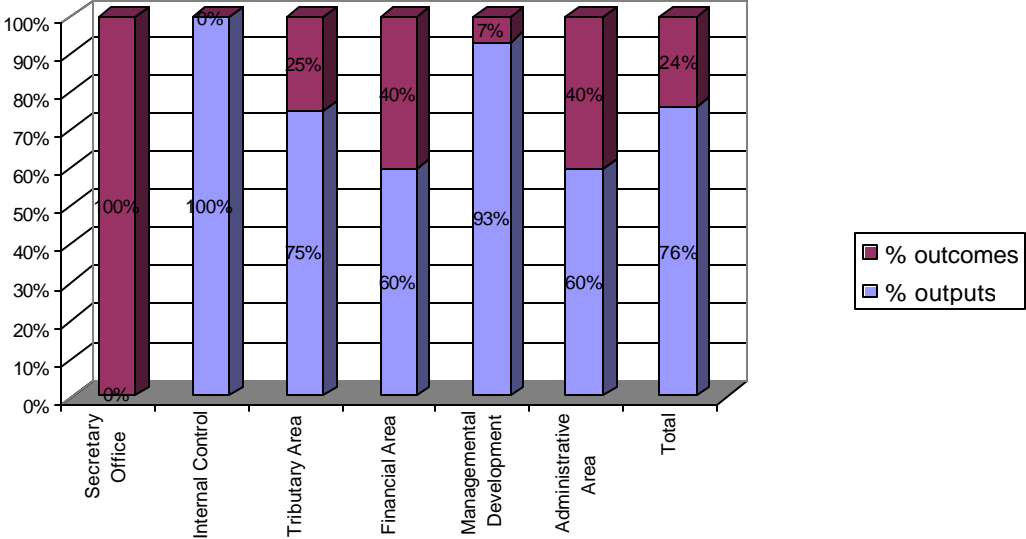
More than half of the indicators are related to the tributary area. It is because the process of a systematic performance measurement began on the tributary area in 1996, while the implementation of indicators on the other areas of SEFAZ Bahia occurred only in 2003. Two aspects influence this heterogeneous distribution. First, the group of indicators of some areas is not sufficient enough to measure the reaching of the macro-objectives, which will be analyzed later. Secondly, we can identify an over-lapping among indicators in the tributary area. There are indicators that measure the same result but with different criteria: quantity and value. Also, there are indicators that are exactly the same, but one is applied on all the events and another is applied in just some of those events. For example, there is an indicator to measure the amount of time that the administrative process needs to be concluded. Another indicator measures the same aspect, but just for the processes whose amount is higher than R\$ 1 million (approximately \$ 350,000 dollars).

A large number of indicators allow the manager to follow the results in his area more closely. On the other hand, an excessive number of indicators make it difficult for an overview of the performance. It is necessary for the high administration to put more effort to follow a large number of parameters. It hinders the staff to keep focus on the important parameters.

The classification of the indicators between outputs and outcomes is presented in Figure 2. The criterion to classify the indicators is based on the macro-objective related to each indicator. If the indicator measures an aspect that effectively represents the macro-

objective proposed, it is classified as an outcome. If it measures an activity related to an intermediary phase of the way to reach the macro-objective, it is classified as an output.

Fig 2 - Ouputs x Outcomes



Only 20 indicators, which represent 24% of all 84 indicators, measure outcomes. However, the two most important indicators, which are the indicators related to the Secretary Office, are outcomes. In the Financial Area, where it is easier to define numeric outcomes, 40% percent of the indicators are outcomes. In the Administrative Area this number is 40% as well, and the Tributary Area is 25%. On the Management Development Area just 7% of the indicators are outcomes and in the Internal Control Area all the indicators are classified as outputs. The characteristics of some activities hinder the implementation of indicators that measure outcomes, because normally, they depend on surveys to measure qualitative aspects. As the indicator system was developed trying to search all the data by automatic processes, this kind of survey was avoided.

Considering the adequacy of the indicator’s attributes, the following analysis will evaluate three aspects: relevancy, competency and sufficiency. This analysis considers the desirable attributes defined by Newcomer (2003, p. 337).

- “Relevant:
- clearly linked to organizational objectives;
 - understandable;

Competent:

- accurately measuring the criterion of interest;
- capable of being validated
- verifiable;
- reliable measurement procedures;
- measurable within allowable time of frame;

Sufficient:

- capturing a balanced set of dimensions;
- measuring a reasonable number of dimensions (complete);
- measuring an adequate number of dimensions to guard against unintended consequences;
- reasonable cost;"

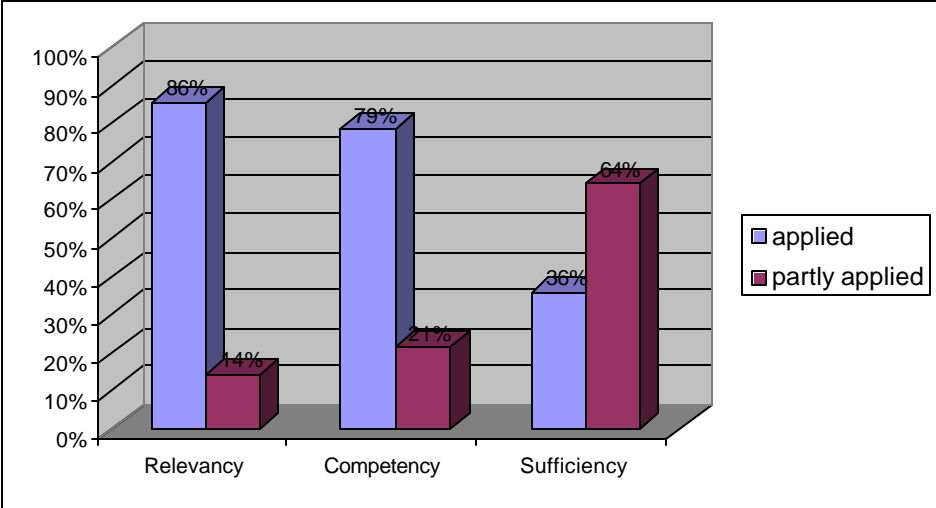
The application of each attribute was evaluated for a group of indicators related to the same macro-objective, and the definition was applied to the specific macro-objective. For example, the macro-objective "To care for quality of public expenditure" is related to three indicators. The analysis of relevancy consider if, the group of these indicators, together, answers adequately to the definition established to the attribute relevancy: the indicators are understandable and clearly linked to organizational objectives. The table 2 presents this analysis.

Table 2 – Attributes of each group of indicators

Area	Macro-objectives	Relevancy	Competency	Sufficiency
Secretary Office	To maintain fiscal balance equilibrium;	Relevant	Competent	Sufficient
Internal Control	To care for quality of public expenditure;	Partly Relevant	Competent	Partly Sufficient
	To perfect the preventive and corrective internal control acting;	Relevant	Competent	Sufficient
Tributary Area	To increase spontaneous tax collection;	Relevant	Competent	Partly Sufficient
	To increase tributary credit recovery;	Relevant	Partly Competent	Partly Sufficient
	To provide larger velocity to administrative process;	Relevant	Partly Competent	Sufficient
	To improve the quality of administrative process;	Relevant	Partly Competent	Sufficient
Financial Area	To optimize administration of state public resources;	Relevant	Competent	Partly Sufficient
Management Development	To improve people's management;	Relevant	Competent	Partly Sufficient
	To improve quality of customer service;	Relevant	Competent	Partly Sufficient
	To enlarge use of information technology;	Relevant	Competent	Partly Sufficient
Administrative Area	To improve organizational infrastructure;	Partly Relevant	Competent	Partly Sufficient
	To provide larger velocity and quality to support activities;	Relevant	Competent	Partly Sufficient
	To improve rate collection/expenditures;	Relevant	Competent	Sufficient

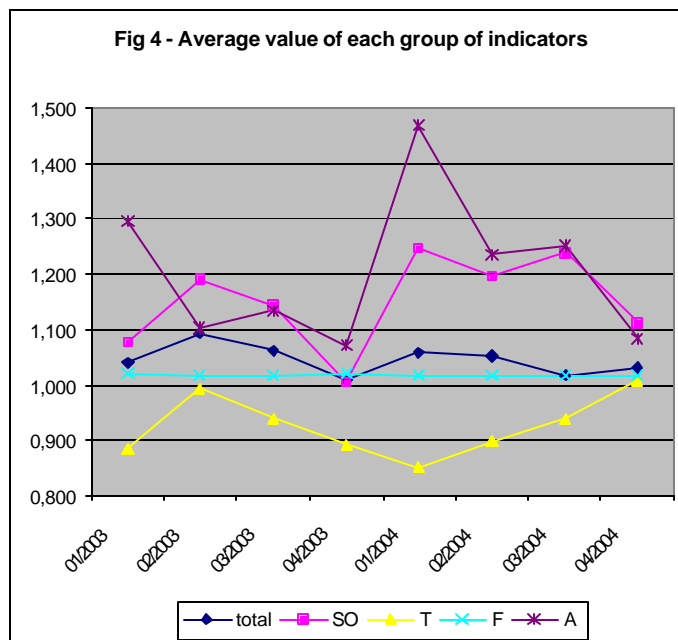
The analysis, as shown in Figure 3, concludes that most of the indicators are adequate for the attributes defined as important in this study. Among the three attributes, sufficiency is the one that needs more attention. Of course, it is necessary to do some adjustments on the system, but this is a natural process. The organization must learn with the results and adapt the parameters in order to improve the system. This process demands time, and it has been done, particularly in the tributary area, where the indicators were implemented in the beginning.

Fig 3 – Attributes of the indicators



5.4. The organizational performance measurement based on the indicators

To analyze the organizational performance from the indicators, we verified the results measured every quarter in the period between January 2003, and December 2004. We just analyzed the indicators classified as outcomes. The results are presented as a rate between the performance measured and the goal specified. The Figure 4 presents the behavior of these indicators along the period, showing the average value for the group of indicators of each area. The values are shown for each quarter of year from January 2003 to December 2004 (Annex 1 presents a table with all the values used in this analysis).



The average of the indicators represented on the line indicated by *total* is over the goal in the entire period. It is important to register that the way the average is calculated allows for bad performance in one indicator to be compensated by a good performance in another one. The total average is 1.043 and the standard variation 0.025. However, there is not a visible improvement in the performance in the period, according to the figures presented by the indicators.

The indicators of the Administrative Area have a very large width. On the other hand, the indicators of the Financial Area have a very short width, and its standard deviation is almost zero. The table 3 shows these values.

Table 3 – average and standard deviation for each group of indicators

Area	quant	average	std dev
Secretary Office	2	1,151	0,084
Tributary Area	11	0,925	0,054
Financial Area	4	1,018	0,001
Administrative Area	2	1,206	0,135
total	19	1,045	0,027

Analyzing the figures of each indicator (see Annex 1), it is clear that the behavior is not homogeneous among the indicators. There is one indicator whose standard variation is higher than 59% of the average, and eight indicators whose standard variation is lower than 2%. Observing the analysis above and the characteristics of each indicator, some conclusions may be pointed out:

- The indicator which has a very large standard variation is affected by external factors that influence the results, and it probably does not represent the effort by the organization to reach the goal.
- The indicator which has a very narrow standard variation can not be used as a management tool, because it is not able to measure the effort to improve the organizational performance.

The performance results observed in the organization, without using the indicators, shows that the performance improved in the period analyzed. But, it is not presented in the indicator's figures. In fact, it is necessary to redefine some parameters to avoid situations like the ones shown before. The indicators must be sensitive enough to the managerial effort. Also, the indicators that are strongly affected by external factors must be reviewed in order to represent the effort of the organization. Otherwise, the indicators system will not be useful as a managerial tool for the high administration.

6. Conclusion

The application of performance indicators is an indispensable management tool in a modern public administration. The society claim more quality on rendering of the public services and more efficient application of public resources. For this, it is necessary to use performance measurement.

Based on the analysis of SEFAZ – Bahia indicator system and the recommendations of several authors, some learned lessons may be registered.

The political and cultural challenges to implement performance measurement in a public organization may be strongly reduced when the process is initiated inside the organization. Even when there is an external decision to implement, like a law, it is extremely important that the high staff of the organization really understand the importance of this tool, and lead the process.

The definition of indicators and their goals must be discussed with the managers of the areas involved. The discussion is indispensable for ensure that the indicators are technically well defined, aligned with the strategic objectives of the area and understood correctly by everyone that can affect the results measured.

It is important to define indicators for all areas of the organization. For the areas not involved with the final objectives of the organization, the definition of indicators related to outputs is important to keep the people working as a team.

The process of definition of the indicators must be based on the important attributes defined by the authors. However, the system must be constantly analyzed and improved, modifying, excluding or including new indicators, as well as, adjusting the goal specified.

According to Julnes and Holzer (2001), among the several difficulties to use adequately performance indicators in public organizations, one of the most important is to avoid the underutilization of the tool. To be useful as a management tool it is important to adjust the indicators to be enough sensitive to the managerial effort, avoiding strong external effects.

The systematic application of performance measurement in Brazilian public administration is a new issue, particularly in state government. In this context the experience of Bahia State Secretariat of Finance is important for some reasons. First, the indicators are structured as a system that covers all areas of the organization. Secondly, the motivation to implement performance measurement was born inside the organization and not by

external agents. Last, the performance measurement changed the organizational culture, aligning the focus of the organization with the claims of the society.

The analysis showed that is necessary to do some adjusts in the system. This need is part of a natural process of improving the system. This is also consequence of the learning process of the organization.

7. References

- Azevedo, L. C. S. (1999). *Developing a Performance Measurement System for a Public Organization: A Case Study of Rio de Janeiro City Controller's Office*. The George Washington University. Minerva Program, Spring 1999.
- Behn, R. D. (2003). *Why Measure Performance? Different Purposes Requires Different Measures*. Public Administration Review. September/October, 2003.
- Berman, E. and Wang, X. (2000). *Performance Measurement in U.S. Counties: Capacity for Reform*. Public Administration Review. September/October, 2000.
- Broom, C. A. (2002). *Using Comparative Performance Measurement*. Public Administration Review. September/October 2002.
- Cardoso, R. L. S. (1997). *Instrumentos para Implantação do Modelo Gerencial na Administração Pública*. XI Concurso de Ensayos del CLAD, Caracas. Internet. (<http://unpan1.un.org/intradoc/groups/public/documents/CLAD/UNPAN003745.pdf>. Access Date: December, 22, 2004).
- Catelli, A. (2001). *Mensurando a Criação de Valor na Gestão Pública*. 13th Asian Pacific Conference on International Accounting Issues. Internet. (<http://www.gecon.com.br/artigo21.htm>. Access Date: December, 12, 2004.)
- Courty, P. and Marschke, G. (1997). *Measuring Government Performance: Lessons From a Federal Job-training Program*. The American Economic Review. May, 1997.
- Davies, I. C. (1999). *Evaluation and Performance Management in Government*. SAGE Publications. London, 1999.
- Epstein, P. D. (1984). *Using Performance Measurement in Local Government – a Guide to Improving Decisions, Performance, and Accountability*. Van Nostrand Reinhold, New York, USA.
- Epstein, J. & Olsen, R. T. (1996). *Managing for Outcomes: Lessons Learned by State and Local Government*.
- European Commission. (1997). *Evaluating EU Expenditures Programmes: A Guide to Ex Post and Intermediate Evaluation*. Luxembourg. January, 1997.
- Fine, T. and Snyder, L. (1999). *What is The Difference Between Performance Measurement and Benchmarking?* Public Management. January, 1999.
- Fonseca, L. and Brito, W. O. (xxxx). *Uma Ferramenta Gerencial para o Setor Público – O Contrato de Gestão*. XVI Congresso Brasileiro de Contabilidade. Internet. (<http://www.milenio.com.br/siqueira/Tr028.htm>. Access Date: December, 12, 2004).
- Freitag, A. (1998). *How to Measure What We Do*. Public Relations Quartely. Summer, 1998.

- Freitas, C. A. S. (1999). *A Implementação do Government Performance and Results Act na Administração Pública dos EUA*. Revista do Serviço Público. Brasília: jul/set 1999.
- Galvão, L. L. (2002). *Medidas de Desempenho Organizacional em Organizações Públicas Brasileiras*. VII Congreso Internacional del CLAD.
- Guedes, C. C. (2002). *A Efetividade do Instrumento de Avaliação da Gestão do Setor Público*. Thesis. Federal University of Bahia. Internet. (<http://www.adm.ufba.br/disserta/mesprof/ceresguedes.htm>). Access Date: December, 22, 2004).
- Ghisi, A. P. (2000). *Desempenho das Entidades Fiscalizadoras Superiores e Indicadores de Rendimento*. X Assembléia Geral OLACEFS. Internet. (<http://www.olacefs.gov.br/html/Palestras/PalestraMinGhisi2.pdf>). Access Date: December, 22, 2004).
- Hatry, H., Gerhart, C. and Marshall, M. (1994). *Eleven Ways to Make Performance Measurement More Useful to Public Managers*. Public Management. Washington: September 1994.
- Hernandez, D. (2002). *Local Government Performance Measurement*. Public Management. October, 2002.
- Jeger, E. (2000). *Quality in Public Service Provision*. The George Washington University. Minerva Program, Fall 2000.
- Julnes, P. L. and Holzer, M. (2001). *Promoting the Utilization of Performance Measures in Public Organizations: An Empirical Study of Factors Affecting Adoption and Implementation*. Public Administration Review. November/December, 2001.
- Keevey, R. F. (2005). *Achieving Results with State and Local Governments*. In *Getting Results – A Guide for Federal Leaders and Managers*. Management Concepts, Vienna, USA.
- Kelman, S. (2001). *Some Advice for Good Measure*. Government Executive. March, 2001.
- Kravchuk, R. S. and Schack, R. W. (1996). *Designing Effective Performance-Measurement Systems Under the Government Performance and Results Act of 1993*. Public Administration Review. July/August, 1996.
- McAdam, R. and Saulters, R. (2000). *Quality Measurement Frameworks in the Public Sector*. Total Quality Management. July, 2000.
- Marshall, M. et al. (1999). *21st Century Community Focus: Better Results by Linking Citizens, Government, and Performance Measurement*. Public Management. November, 1999.
- Newcomer, K. E. (1997). *Using Performance Measurement to Improve Programs*. In *Using Performance Measurement to Improve Public and Nonprofit Programs*. Jossey-Bass, San Francisco, USA.

- Newcomer, K. E. (2003). *Measuring Government Performance*. George Washington University, Washington, USA.
- Newcomer, K. E. and others. (2005). *Getting Results – A Guide for Federal Leaders and Managers*. Management Concepts, Vienna, USA.
- Ogata, K, and Goodkey, R. (1998). *Redefining Government Performance*. Cambridge Paper. Canadá. Internet.
(http://www.finance.gov.ab.ca/publications/measuring/cambridge_paper.html.
Access Date: January, 27, 2005).
- Peixoto, P. (2004). *Desenvolvimento de Sistemas de Indicadores de Desempenho Institucional para Organizações Públicas*. IOC.
- Plantz, M. C., Greenway, M. T. and Hendricks, M. (1997). *Outcome Measurement: Showing Results in the Nonprofit Sector*. In Using Performance Measurement to Improve Public and Nonprofit Programs. Jossey-Bass, San Francisco, USA.
- Public Knowledge Inc. (2004). *Introducing Performance Measurement*. Internet.
(www.pubknow.com/documents/introducing_performance_measurement.pdf. Access Date: January, 27, 2005).
- Santos, L. A. and Cardoso, R. L. S. (2001). *Avaliação de Desempenho da Ação Governamental no Brasil: Problemas e Perspectivas*. XI Concurso de Ensayos Del Clad. Caracas. Venezuela.
- SEFAZ (2005). Secretaria da Fazenda do Estado da Bahia. Internet.
(<http://www.sefaz.ba.gov.br>. Access Date: February, 28, 2005).
- Toscano Jr, E. M. (2003). *Auditoria de Desempenho: O Desafio de Otimizar a Avaliação na Gestão Pública*. Internet.
(http://www.redecontabil.com.br/artigo/arquivos/art_37.pdf. Access Date: December, 03, 2004.)
- Wholey, J. S. and Newcomer, K. E. (1997). *Clarifying Goals, Reporting Results*. In Using Performance Measurement to Improve Public and Nonprofit Programs. Jossey-Bass, San Francisco, USA.
- Williams, D. W. (2003). *Measuring Government in the Early Twentieth Century*. Public Administration Review. November/December, 2003.

Annex 1

Indicators classified as outcomes
Performance measured in each quarter

Area	Ind #	01/2003	02/2003	03/2003	04/2003	01/2004	02/2004	03/2004	04/2004
SO	1	1,148	1,102	1,005	0,784	1,185	1,074	1,052	0,815
SO	2	1,004	1,280	1,280	1,226	1,310	1,320	1,422	1,410
T	14	0,963	0,984	0,995	0,990	0,980	0,980	0,980	0,980
T	16	0,844	0,868	0,800	0,790	0,830	0,810	0,810	0,800
T	19	1,041	1,024	1,011	1,032	1,041	1,026	1,000	1,024
T	20	1,071	1,071	1,059	1,082	1,087	1,082	1,060	1,076
T	34	0,567	2,067	1,667	0,943	0,433	0,433	1,033	0,833
T	35	1,350	0,850	0,800	0,950	1,350	1,650	1,000	1,450
T	36	1,051	1,105	1,057	1,084	1,120	1,147	1,137	1,011
F	37	1,042	1,046	1,047	1,047	1,042	1,047	1,048	1,048
F	38	1,020	1,016	1,016	1,020	1,010	1,014	1,012	1,013
F	39	1,006	1,007	1,009	1,009	1,010	1,009	1,009	1,008
F	40	1,009	1,004	1,003	1,002	1,003	1,003	1,002	1,005
A	70	1,157	1,157	1,157	1,157	1,024	1,024	1,051	1,087
T	77	0,980	0,980	1,030	1,053	0,741	0,727	0,563	0,755
T	78	1,000	0,960	0,980	0,990	0,931	1,118	1,067	1,159
A	74	1,436	1,048	1,113	0,987	1,911	1,449	1,449	1,082
T	84							0,845	1,111
T	85							0,820	0,877

Average performance in each area

	01/2003	02/2003	03/2003	04/2003	01/2004	02/2004	03/2004	04/2004
SO	1,076	1,191	1,142	1,005	1,248	1,197	1,237	1,112
T	0,887	0,991	0,940	0,891	0,851	0,897	0,938	1,007
F	1,019	1,018	1,019	1,020	1,016	1,018	1,018	1,019
A	1,297	1,103	1,135	1,072	1,468	1,236	1,250	1,084
total	1,041	1,092	1,060	1,009	1,059	1,054	1,019	1,029

Note:

- The indicator 47, in spite of is classified as outcome, was excluded of this analysis because the goal was modified twice along the period studied.