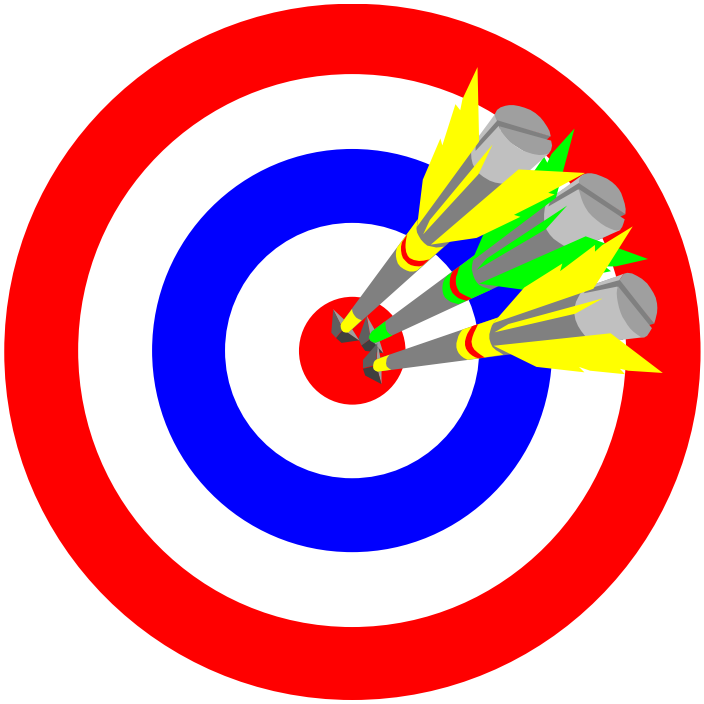
Fairfax County

Manages For Results:
A Guide to Advanced
Performance Measurement



Performance Measurement Team
Department of Management and Budget

2007

TABLE OF CONTENTS

TABLE OF CONTENTS

PREFACE

Leading organizations, whether public or private, use performance measurement to gain insight into, and make judgments about, the effectiveness and efficiency of their programs, processes and people. While performance measures will not in and of themselves produce higher levels of effectiveness, efficiency and quality, they will provide the necessary data to reallocate resources or realign strategic objectives to improve products, processes and priorities. These best-in-class organizations decide on what indicators they will use to measure progress toward meeting strategic goals and objectives (actions), then gather and analyze data, and finally use these data to drive improvements in their organizations. This process is typically known as "Managing for Results."

Fairfax County has refined the "Managing for Results" process into more distinct steps to facilitate ease of use and understanding of this process to maximize results:

1. Focusing on Results
2. Strategic Planning in the Context of Performance Measurement
3. Program Planning
4. Budget Implications of Performance Measurement
5. Identifying Processes to Be Measured
6. Identifying Critical Activities to be Measured
7. Establishing Performance Goals
8. Establishing and Updating Performance Measures
9. Identifying Key Staff to be Responsible for Performance Measure Processes
10. Collecting the Data
11. Analyzing the Data
12. Reporting the Data
13. Comparing Actual Performance to Performance Goals
14. Using Performance Information
15. Determining if Corrective Action is Needed
16. Making Changes to Implement Corrective Action
17. Determining If New Goals and Performance Measures are Needed

Consequently, the factors of planning, budgeting, and performance measurement are intrinsically linked in this model of "Managing for Results." The above is not a linear process; rather, it is a circular or ongoing process. The last step continually feeds into the first steps – focusing on results and strategic planning. The emphasis is on *continuous improvement* and *innovation*. Performance measurement is a process; therefore, it's not a "one-size-fits-all" cure-all or a simplistic formula or equation for instant success. Performance measurement is a management tool. In Fairfax County, we measure performance <u>not</u> to keep score. Performance measurement is a tool to constantly improve and deliver our programs and services. Measurement alone is not the answer – you have to use the data to improve. While strategic planning helps organizations focus on "doing the right things," performance measurement (PM) helps organizations determine if they are "doing them right."

Inherent in the PM process are four driving questions:

1. Where are we now?

2. Where do we want to be?

3. How do we get there?

4. How do we measure our progress?

Performance measurement is used to:

- Drive day-to-day decisions, as well as long-term planning
- Invest resources in performance
- Communicate successes and provide accountability

Since 1997 when Fairfax County embarked on an initiative to enhance its system of performance measurement, a key principle has been to study and learn from those recognized as leaders in the field of managing for results in order to adapt best practices and avoid reinventing the wheel. Another recognized principle is that the PM process is evolutionary. Consequently, it is a long-term, sustained process that yields benefits and dividends to organizations down the road, and may not be readily apparent in the present. Contacts from organizations noted as high-performers repeatedly emphasized the iterative nature of these types of efforts. Measuring performance and using the data to continuously improve is not a one-time endeavor. It requires long-term commitment and dedication.

Employees throughout Fairfax County have made that commitment and have identified areas where additional training and support are essential to assist them in this process. In response, the Performance Measurement Team has developed a series of courses to enable staff to measure and improve performance. This manual is part of the course known as *Advanced Performance Measurement – Managing for Results*. It supplements the initial manual, *Fairfax County Measures Up* and was prepared to guide employees beyond basic performance measurement and to enable them to fully employ the principles of managing for results in order to improve programs, processes and workforce.

KEY TERMS

***1-10-100 RULE*:** The rule that states if a problem is not fixed in a timely manner when first discovered, it will be more costly to fix later (in terms of both time and money). The rule recognizes that it makes a difference when a problem is discovered and resolved.

***ACCURACY*:** The closeness of a measurement to the accepted true value. The smaller the difference between the measurement and the true value, the more accurate the measurement.

BASELINE DATA: Initial collection of data to establish a basis for comparison, evaluation and target setting.

BENCHMARK: A standard or point of reference used in measuring and/or judging quality or value.

BENCHMARKING: The process of continuously comparing and measuring a private and/or public organization against recognized leaders anywhere in the world to gain information that will help the organization take action to improve its performance.

BEST-IN-CLASS: Outstanding performance within an industry or sector; words used as synonyms include "best practice" and "best-of-breed."

BEST PRACTICE: Superior performance within an activity, regardless of industry, leadership, management, or operational approaches; methods that lead to exceptional performance. A relative term that usually indicates innovative or business practices that have been identified during a particular benchmarking study as contributing to improved performance.

***BIAS (OF MEASUREMENT)*:** Personal and unreasoned distortion of judgment that causes an error in analysis of measurement.

BUSINESS PROCESS REDESIGN: The reengineering of business processes, organizational structures, management systems, and/or values of an organization in order to achieve breakthroughs in performance.

***CHECKSHEET*:** A form specially designed so that results can be readily and easily interpreted directly from the form.

CONTINUOUS IMPROVEMENT: Ongoing, incremental and measurable steps taken to enhance service delivery by improving efficiency and/or effectiveness.

***CONTROL*:** The set of activities employed to detect and correct variation in order to maintain or restore a desired state of conformance with quality goals.

***CORRECTIVE ACTION*:** Measures taken to rectify conditions adverse to quality and, where necessary, to preclude repetition.

***CRITICAL ACTIVITY*:** This is an activity that significantly impacts total process efficiency, effectiveness, quality, timeliness, productivity, or safety. At the management level, critical activities impact management priorities, organizational goals, and external customer goals.

CRITICAL SUCCESS FACTORS: Measures for effectiveness and efficiency where satisfactory performance is essential in order for a business to succeed; characteristics, conditions, or variables that have a direct influence on a customer's satisfaction with a specific business process; the set of things that must be done right if the vision is to be achieved.

CUSTOMER: The person or group that establishes the requirements of a process and receives or uses the outputs of that process, or the person or entity directly served by the organization.

***DATA*:** Information or a set of facts presented in descriptive form.

***DATA COLLECTION SYSTEM*:** A broadly defined term indicating that set of equipment, log books, data sheets, and personnel used to record and store the information required to generate the performance measurements of a process.

DATA SHEET: A form designed to collect data in a simple tabular or column format. Specific bits of data – numbers, words, or marks – are entered in spaces on the sheet. Additional processing is typically required after the data are collected in order to construct the tool needed for analysis.

EFFECTIVENESS: A process characteristic indicating the degree to which the process output (work product) conforms to requirements.

EFFICIENCY: A process characteristic indicating the degree to which the process produces the required output at minimum cost.

FEEDBACK: Communication of quality performance to sources that can take appropriate action.

FEEDBACK LOOP: A systematic series of steps for maintaining conformance to quality goals by feeding back performance data for evaluation and corrective action. This is the basic mechanism for quality control.

FREQUENCY: One of the components of a performance measurement that indicates how often the measurement is made.

GOAL: Broad statements describing desired outcomes, but more specific than an agency's mission; they support the mission and identify specific themes or opportunities for an agency to accomplish in order to achieve its mission.

HIGH-PERFORMANCE ORGANIZATION (HPO): An organization that produces results with quality service and high financial performance.

KEY PERFORMANCE INDICATOR: Measurable factor of extreme importance to the organization in achieving its strategic goals and objectives.

MEASURE: A quantifiable unit that provides information regarding the volume, financial performance, service quality and results of a service.

METRICS: Measures or categories of information that define the overall performance of an organization, i.e., productivity, satisfaction, etc.

MISSION: A short, comprehensive description of why an organization exists. It succinctly identifies what an organization does (or should do), and for whom it does it.

PERFORMANCE MANAGEMENT: The use of performance measurement information to help set performance goals; allocate and prioritize resources; inform managers to either confirm or change current policy or program directions to meet those goals; and report on the success of meeting those goals.

PERFORMANCE MEASUREMENT: A process of assessing progress toward achieving predetermined goals, including information on the efficiency with which resources are transformed into goods and services (outputs); the quality of those outputs, i.e., how well they are delivered to customers and the extent to which customers are satisfied (service quality); and the qualitative results of a program activity compared to its intended purpose (outcome).

PROCESS: Any activity or group of activities that takes an input, adds value to it, and provides an output to a customer. The logical organization of people, materials, energy, equipment, and procedures into work activities designed to produce a specified end result (work product).

PROCESS OWNER: The individual who possesses managerial control over a particular business practice.

PRODUCTIVITY: The value added by the process divided by the value of the labor and capital consumed.

QUALITY: The degree to which a product or service meets customer requirements and expectations.

RAW DATA: Data not processed or interpreted.

RECALIBRATION: Adjustment of the measurement alignment of an instrument against a recognized standard; to standardize by determining and correcting the deviation of measure from a standard.

RE-ENGINEERING: A process of rethinking and redesigning work processes to achieve noticeable improvements in service delivery responsive to customer needs and/or achieve significant reductions in cost.

ROOT CAUSE: The fundamental causal reason for a particular observation; the result of asking "why" at least five times to determine the basic cause in a chain of causal relationships.

STANDARDS: A prescribed set of rules, conditions, or requirements used to measure or define the quality or quantity of particular performance elements.

STRATEGIC DIRECTION: The organization's goals, objectives, and strategies by which it plans to achieve its vision, mission, and values.

STRATEGIC GOAL: A long-range target that guides an organization's efforts in moving toward a desired future state.

STRATEGIC OBJECTIVE: A time-based measurable accomplishment required to realize the successful completion of a strategic goal.

STRATEGIC PLANNING: A continuous and systematic process whereby an organization makes decisions about its future, develops the necessary procedures and operations to achieve that future, and determines how success is to be measured.

SWOT ANALYSIS: An organization's self-assessment of its strengths and weaknesses (internal factors) as well as opportunities and threats (external factors).

TARGET: A mark to shoot at; a short-term goal to be achieved.

TOTAL QUALITY MANAGEMENT: A customer-focused management philosophy and strategy that seeks continuous improvement in business processes by applying analytical tools and teamwork.

***VALIDATION*:** A determination that an improvement action is functioning as designed and has eliminated the specific issue for which it was designed.

***VALUE-ADDED*:** Process or steps that enhance an outcome.

***VARIABLE DATA*:** Data that may take on any value within some range. It provides a more detailed history of a business process. This involves collecting numeric values that quantify a measurement and therefore requires small samples.

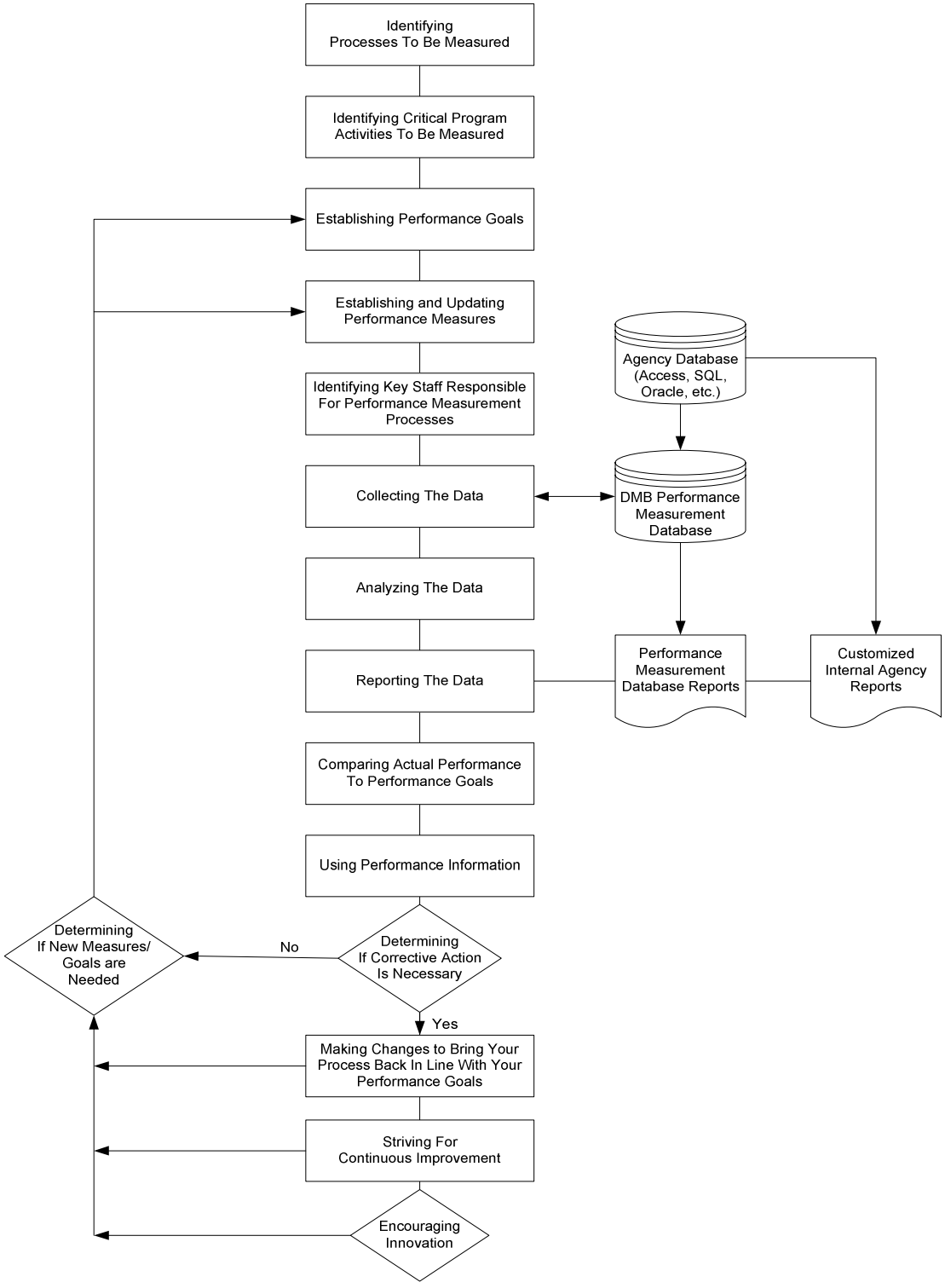
***VARIANCE*:** In quality management terminology, any nonconformance to specification.

***VERIFICATION*:** The determination that an improvement action has been implemented as designed.

VISION: A description of what and where an organization wants to be in the future.

WORLD CLASS: Leading performance in a process, independent of industry or geographic location.

Managing For Results Workflow



FOCUSING ON RESULTS

The focus of performance measurement is results and outcomes. All the activities associated with the County's performance measurement process are driven by a desire to achieve results and outcomes that benefit the residents of Fairfax County. In the overall context of performance measurement, it is important to maintain focus on the purpose of why we measure. Simply put, developing performance measures, surveying for customer satisfaction, and data collection are insufficient in and of themselves, and only serve as a means to an end. The end of the performance measurement process, however, is to achieve results (outcomes) that focus on customer satisfaction, and improving processes, products, programs and services to meet those customer needs and expectations insofar as they are feasible within reason. Consequently, it is imperative not only to measure performance, but to also manage performance for results. In many instances, good is not good enough. The following chart illustrates this point quite clearly:

If 99.9% Is Good Enough, Then…

- **12 newborns will be given to the wrong parents daily**
- **103,260 income tax returns will be processed incorrectly this year**
- **18,322 pieces of mail will be mishandled every hour**
- **3,056 copies of tomorrow's *Wall Street Journal* will be missing one of the paper's three sections**
- **2,000,000 documents will be lost by the IRS this year**
- **880,000 credit cards in circulation will turn out to have incorrect cardholder information on their magnetic strips**
- **315 entries in Webster's Dictionary will be misspelled**
- **291 pacemaker operations will be performed incorrectly**
- **20,000 incorrect drug prescriptions will be written this year**
- **What does a 0.1% error rate mean to your County agency's performance measurement metrics?**

Outcomes

We start and finish with outcomes. Results matter. In many respects, outcomes drive the performance measurement system. In order to clearly define your outcomes or desired results, first determine why you do what you do, and next determine how your particular agency program or service benefits your customers and what value it provides them? End outcomes are predicated on two vital components:

1) Outcome goals (benefits)

2) Outcome performance measures

Ultimately, your agency and program goals should positively impact your customers. Consequently, this begs the question: "How do you measure the benefit or value of your program or service?"

Certainly, performance measures provide you with the tools to answer the question: "How do I know how well I'm doing?" and "How well am I satisfying my customers and meeting their needs?"

Over the past 30 years, we have learned that customer satisfaction does not necessarily equal zero defects or zero complaints. A program or service can be flawless (no defects) yet completely miss providing what brings a customer innate satisfaction. Moreover, just because your agency does not hear complaints, it does not mean that all your customers are completely and unequivocally satisfied with your program or service. In other words, the absence of dissatisfaction does not equal satisfaction. Simply put, you can eliminate all the dissatisfiers, i.e., things that make customers unhappy, and still not make them happy. The remedy for this dilemma is to focus on customer-centered results and outcomes that revolve around customer satisfaction as your primary goal.

Achieving Results

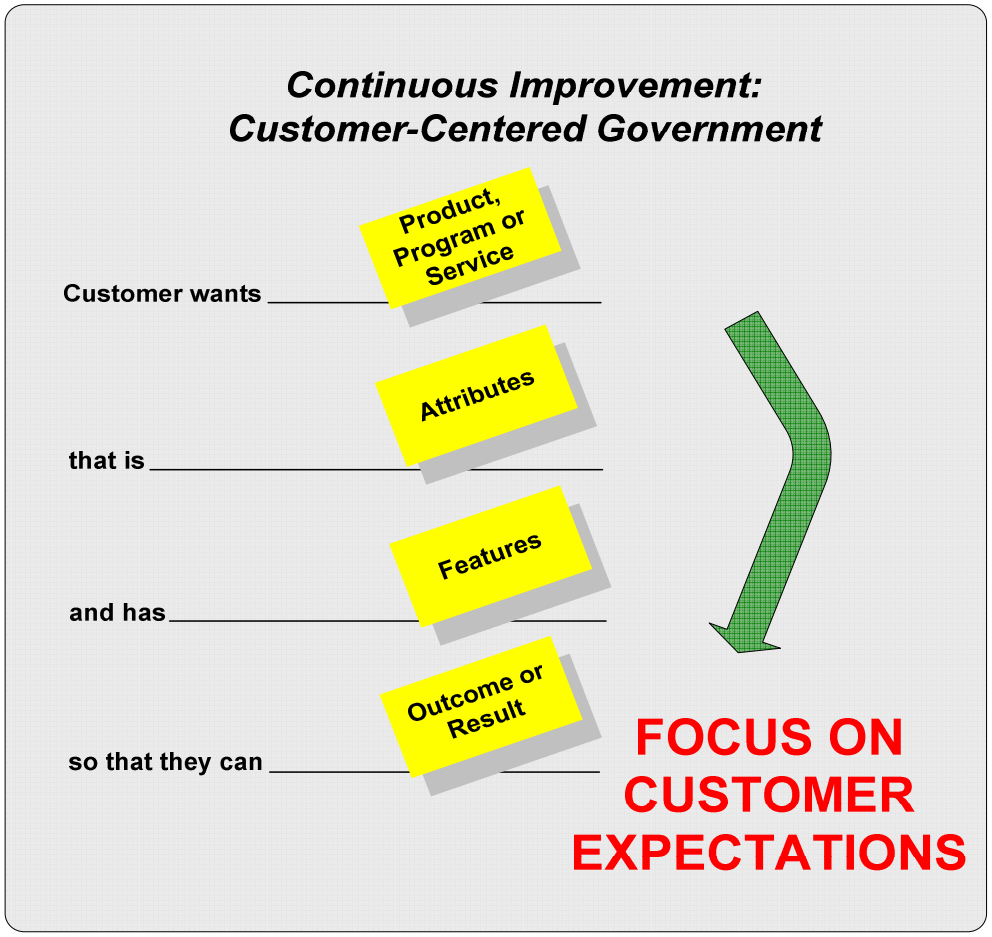
The intrinsic value of every program or service offered by local government should be to benefit residents and improve the overall quality of life within the community. Therefore, agency outcomes should provide tangible results that reflect value and benefit to our residents. You should clearly define and identify your end outcomes with goals and measures. By maintaining a customer-centered focus in our performance measurement process, we can measure performance and report on results that are truly meaningful to our residents, and reflect the value and benefits of the County programs and services we provide them.

Consumers in both the public and private sectors care about three things:

1) Outcomes/results

2) Attributes ("characteristics")

3) Features (those entities that bring outcomes and attributes to "life")



County residents are primarily interested in results (outcomes). Outcomes are largely predicated on knowing and meeting customer expectations. Every employee in Fairfax County produces something (deliverable). Even less tangible things such as management analysis, customer service, etc. can be quantified as a "product" or a "deliverable" service that can be quantified and measured. It's long been held that if you can't describe a process or product, you can't improve it.

Continuous improvement compels County staff to consider the degree to which customer expectations can be achieved and [re]design County programs/services to meet those expectations. Typically, this feat is accomplished by measuring customer priorities. Most, if not all, customer expectations, such as *easy to use*, *timely*, *clear*, *concise*, *simple*, *economical*, *quality*, are subjective perceptions; however, these subjective perceptions can be converted and translated into objective measures that can be used to improve and redesign programs and services as well as definitively determine customer satisfaction.

Implicit in meeting and/or exceeding customer expectations and achieving a high-level of customer satisfaction means knowing your customer.

Know Your Customer

In Fairfax County, we are accountable to taxpayers who can be considered analogous to customers. A customer is anyone whose best interests are served by, or who receives or uses the products or services of a department or program. A County agency or program may serve a specific clientele as well as the common good of the residents. For example, the Adult Detention Center of the Office of the Sheriff must care for the offenders in its custody, while ensuring the safety of the public.

It may sound obvious, but identifying your customers and knowing their requirements is essential to successful performance measurement. Many successful organizations segment their customers into two groups: (1) customers and (2) brokers. Brokers are typically people who transfer your product or service to someone else who will use it (customer). While customers are the end users of products, programs and services, brokers are also a significant constituency. Managers and organizations who do not understand their customer's expectations risk either failing to provide customer satisfaction and/or wasting resources on irrelevant data collection activities. In order to determine customer expectations, the following questions must be answered:

- Who are the customers or beneficiaries (internal and external) of your program?
- What are the key quality characteristics valued by these customers (e.g., timeliness, accuracy, courtesy, etc.)?
- How is performance measured on these key characteristics (e.g., point of service surveys, telephone surveys, automated systems that track response times, etc.)?
- What performance standards would our customers, Board of Supervisors, grantors, etc., like to see us achieve on these measures?

Know Your Customer

Agency Case Study: Fairfax County Public Libraries (FCPL)

Perhaps no agency does a better job of knowing its customers than the Fairfax County Public Libraries staff. FCPL conducts a minimum of one survey and one study every year. In a busy year, FCPL staff may conduct as many as four surveys and two studies. By means of its survey(s), FCPL gathers usage data and demographic data about the customers served. They survey customers by asking questions; requesting customers to complete a survey, and posting surveys on the Internet so they can also reach their remote customers. FCPL staff maintains a 'Community Assessment Notebook' at each of its 20 branch facilities. Each of these notebooks contains demographic, geographic, usage, school, health, housing, and economic data unique to the defined service area of each individual branch. This data is continually updated so FCPL staff has a ready resource which keeps them informed about whom they serve and how their customers are using the particular facilities. In addition, as part of their revised strategic plan, they have identified three service responses which allow them to focus their resources. They are Lifelong Learning, Living in the U.S, and Community Center:

Lifelong Learning – This service response is further broken down into 5 age groups (preschool age 0-5; school age 6-12; teens age 13-18; Adults age 19-64; seniors age 65+). Within each age group, FCPL looks at demographic, usage, collection, and programming data specific to the age group within the branch service area.

Living in the U.S. – The data for this service response focuses on the diversity of the population. Again, demographic, usage, collection and programming data specific to the branch service area are examined. Whereas the lifelong learning service response looks at various data according to age, this response looks at data according to diversity.

Community Center – This service response focuses on ways in which FCPL is serving needs of the community. The demographic, usage, collection and programming data specific to the branch service area concentrates on how the Library fills a need for the community. For example: providing meeting room space, tax assistance, tutoring, hosting community events, etc.

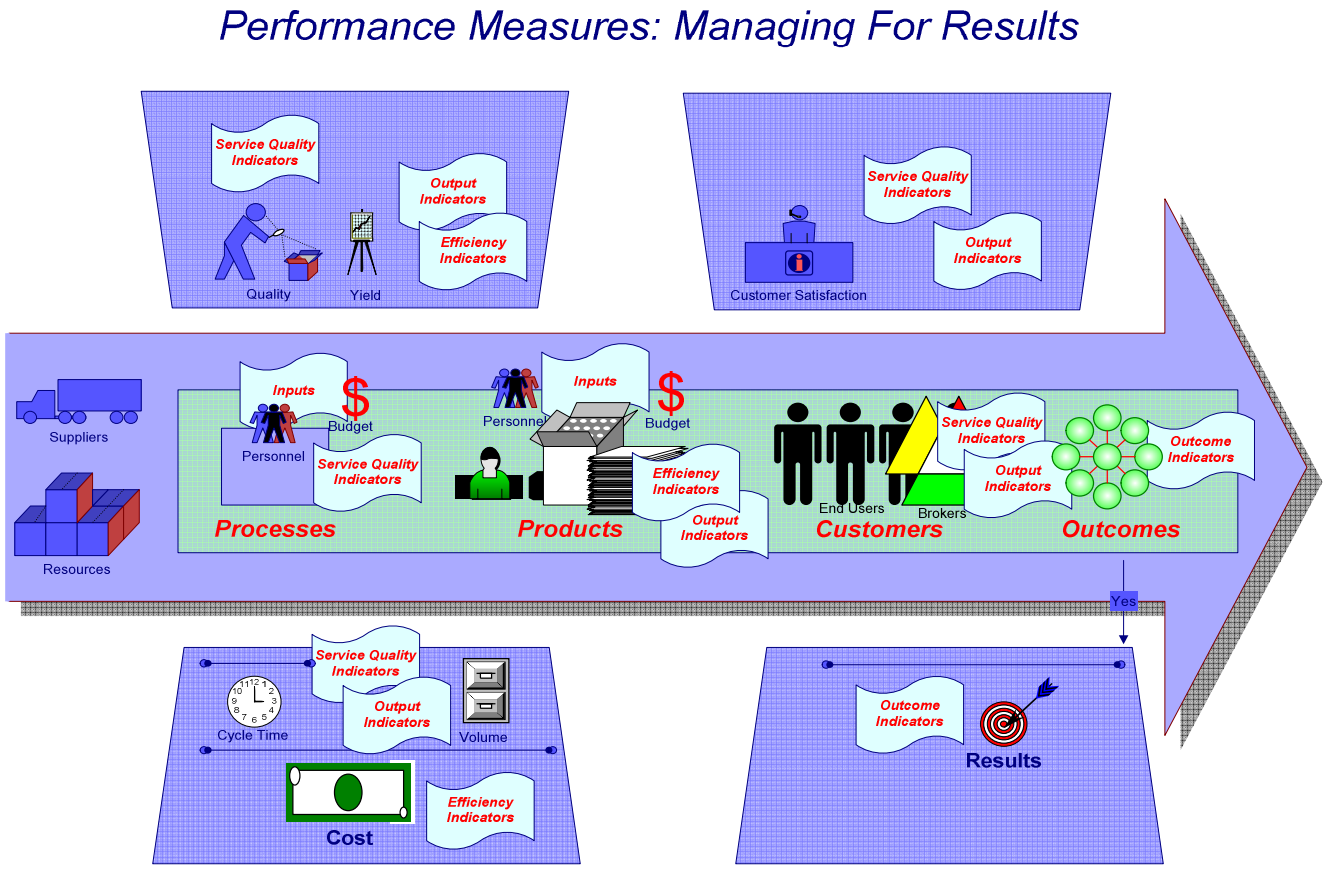


Figure 1: Performance Measures Work With Any System

STRATEGIC PLANNING FOR RESULTS

As a part of the recent Budget Process Redesign effort, there is a concerted effort to strengthen the linkages between performance measures and individual agency strategic plans, as well as the countywide Vision Elements. This emphasis will continue and these linkages will become more substantial and evident in subsequent budget cycles.

Strategic planning helps organizations focus on "doing the right things" while performance measurement helps organization determine if they are "doing the right things right." At a Leadership Forum on April 18, 2002, County Executive Tony Griffin talked with employees (agency directors, LEAD and HPO Program participants, among others) about the difference between the day-to-day work of our organization and the strategic work of leadership. In particular, he explained that due to budget constraints and changing customer requirements, it is essential that our organization draw upon the talents and skills of all employees at all levels of the organization in order to move the organization to the next level of performance. In addition, he shared his belief that the work of leadership was something with which all agencies – and all employees – need to have greater involvement.

Since that time, agencies undertook the task of developing their own mission, vision, values, and strategies to tie with the County's overall vision and values in the form of an agency *strategic plan*. By September 2003, each agency had developed its own strategic plan. This strategic planning effort

is integral to the Fairfax Framework for Excellence (FfX) initiative. The essence of the Fairfax Framework for Excellence (FfX) initiative is to build and align leadership and performance at all levels of the organization in order to collectively achieve our vision and do our best for the community. Forasmuch as we build and align our leadership and performance throughout the organization, Fairfax County will become/remain a high performance organization (HPO).

Performance measurement is a key part of this strategic thinking and process. In fact, planning, budgeting, and performance measurement are inextricably linked in a model commonly known as "Managing for Results." Our performance measurement system not only facilitates the collection, analysis and reporting of data to determine if specific outcomes are achieved, but it also helps translate each agency's mission, vision, values and strategy into tangible, concrete objectives that are measurable.

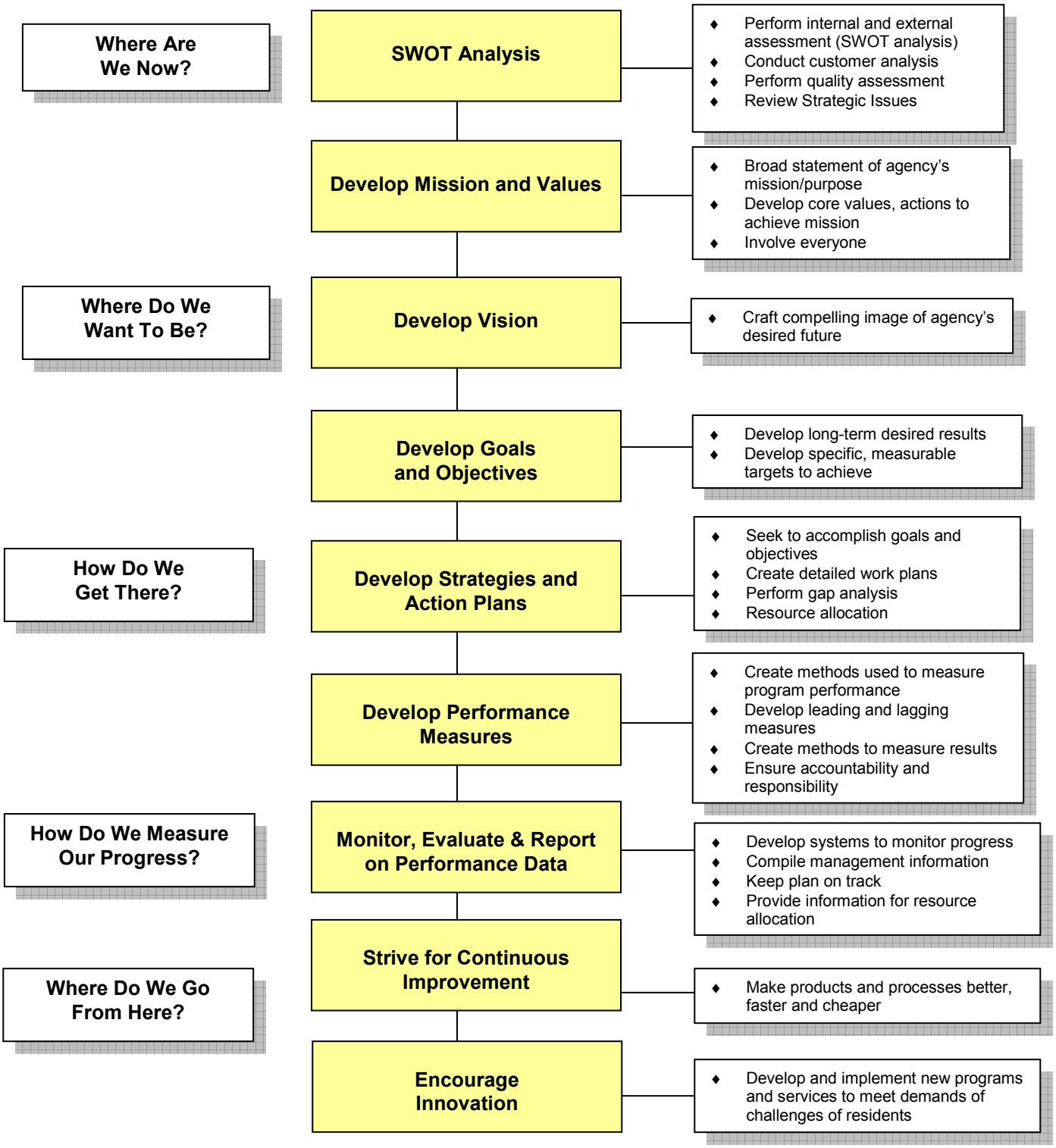
Specifically, strategic planning is the process of looking toward the future, typically within a two- to five-year window, identifying why your organization exists (MISSION), what it would look like if it achieved its mission (VISION), and what concrete steps it will take to achieve that mission (GOALS). Performance measurement data tells both you and your customers if you are achieving or exceeding the results specified in your strategic plan.

The **strategic planning process** provides the County with the opportunity to identify individual agency missions and goals in support of the public need, action steps to achieving goals, and measures of progress and success in meeting strategic goals.

As part of the strategic planning process, agencies periodically – some do this on an annual or bi-annual basis – review their agency mission and agency goals. Indeed, some of the important aspects of strategic planning include the following necessary activities (shown graphically on the next page):

- performing an *environmental scan* and *SWOT analysis*
- drafting and updating an *agency mission*
- formulating *agency goals*
- designing and implementing *agency programs*
- developing *action plans*
- executing *action steps*

Strategic Planning For Results



Environmental Scan and SWOT Analysis

One of the first steps, if not the first one, in the formal strategic planning process is to complete an environmental scan and a SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis for your respective department or agency. The goal of this exercise is to determine the political, economic, demographic, technological, and workforce-related factors that influence – internally and externally – your department. An environmental scan and SWOT analysis enable your organization to envision its future and identify the necessary strategies and objectives to achieve that future. The essence of strategic planning is to align your people, processes and priorities so your agency can maintain high performance and be guided in the right direction toward fulfilling the vision and mandate of your agency mission.

Agency Mission

Agency staff, in concert with their customers, end-users, and brokers, carefully craft and guide their agency mission. The agency mission is a broad statement expressing how the agency intends to fulfill its public purpose. It describes the agency's unique contribution to the County government and/or citizens receiving services and provides a framework within which an agency operates.

Although an agency mission is and should be stable to a degree, the changing needs and demographics of our community demand that we constantly monitor the validity and accuracy of the assumptions inherent in our agency missions. Your existing agency mission statement should be reviewed to determine if it is consistent with the agency's strategic plan.

Strategic Plans

Strategic plans should clearly identify your agency's end *outcomes* or *goals* which will underscore the benefits of your agency to the public. Again, results are what matter. Performance measures are inextricably interwoven throughout the strategic planning model. Your *action plans* and *action steps* are those means that will contribute to achieving your end outcomes or *goals*. Conversely, some agencies will attempt to identify these action plans and action steps by asking the question, "What's causing us not to achieve our outcomes?" At the agency *program* planning level, you should identify those *activities* and *outputs* that will influence or contribute to the achievement of your strategies and outcomes. Make sure to prioritize your programs, activities, and tasks so your efforts are applied in the appropriate areas. The thread of performance measures – though not necessarily the same performance measures that are published in the County budget – can be woven throughout the tapestry of even the strategic plan. In fact, the performance measures used in your strategic plan can and probably should be more focused on strategies and activities identified to help your agency reach its goals; however, these measures may not be the particular performance measures that would be relevant or meaningful to publish in the budget, but rather serve to help improve your agency's processes among other things. Consumers typically aren't concerned with processes, and even products, as much as they are with results. Consequently, this is why there will be a divergence between some of the performance measures in your agency's strategic plan and those which your agency publishes in the County.

However, the concept of performance measures should permeate your organization, and in particular, its strategic plan. Performance measures will make your strategic plan more substantial, focused and directed in helping your agency accomplish its stated mission and goals. By its nature, a strategic plan will be more comprehensive and broader in scope than the published budget narrative. Nevertheless, performance measures can be tied into your strategic plan, and will inherently enable your staff to monitor and manage progress toward meeting stated goals and objectives in the strategic plan.

In addition to what has already been noted about performance measurement and strategic planning, there are some other powerful and intrinsic connections between these two tools. First, there is a strong linkage to the Countywide *Core Purpose* and *Vision Elements* (see page 16). Furthermore, this connection provides for better alignment of each agency's strategic plan with available budget resources and results. Inherent in these dual management processes is a firm basis for providing internal and external accountability to both senior management and the public. In sum, the connection between strategic planning and performance measurement provides a more comprehensive and balanced picture of strategy and performance to everyone.

Every agency's strategic plan and performance measures should have a very clear link to the County's Core Purpose and Vision Elements as agency programs and services should align with one or more Vision Elements. Consequently, if a service or program doesn't link to at least one Vision Element, agency staff should consciously examine the rationale for offering that service or program. This linkage has continued to be strengthened and augment.

The County's Strategic Plan model is predicated on the "Logic Model." The main premise of this model is nicely summarized by one of the axioms coined by Stephen Covey in his bestseller, *The Seven Habits of Highly Effective People*, in which he exhorts managers to always "Begin with the end in mind." Simply put, you should constantly be asking yourself the following series of questions:

- What is it that we do?
- What are we hoping to accomplish?
- What results are we seeking?

The notable feature of the "Logic Model" is its simplicity. It illustrates a program, and, more importantly, it is a way to show the relationship between what you put into your programs and services (inputs), what you do (outputs), and what you accomplish or what results you achieve (outcomes). It provides a logical flow or sequence of *if/then* relationships.

Finally, you should remember that performance measurement data only tells you **WHAT** is happening; it does not tell you **WHY** things are or are not happening. Consequently, you need to use performance measurement data to improve or fine-tune your strategic plan in conjunction with various forms of analysis, e.g., gap and trend analysis, to determine **WHY** you are or are not meeting your expectations.

Fairfax County Core Purpose and Strategic Vision Elements

To protect and enrich the quality of life for the people, neighborhoods, and diverse communities of Fairfax County by:

Maintaining Safe and Caring Communities

The needs of a diverse and growing community are met through innovative public and private services, community partnerships and volunteer opportunities. As a result, residents feel safe and secure, capable of accessing the range of services and opportunities they need, and are willing and able to give back to their community.

Practicing Environmental Stewardship

Local government, industry, and residents seek ways to use all resources wisely and to protect and enhance the County's natural environment and open space. As a result, residents feel good about their quality of life and embrace environmental stewardship as a personal and shared responsibility.

Building Livable Spaces

Together, we encourage distinctive "built environments" that create a sense of place, reflect the character, history, and natural environment of the community, and take a variety of forms – from identifiable neighborhoods, to main streets, to town centers. As a result, people throughout the community feel they have unique and desirable places to live, work, shop, play, and connect with others.

Maintaining Healthy Economies

Investments in the work force, jobs, and community infrastructure and institutions support a diverse and thriving economy. As a result, individuals are able to meet their needs and have the opportunity to grow and develop their talent and income according to their potential.

Connecting People and Places

Transportation, technology, and information effectively and efficiently connect people and ideas. As a result, people feel a part of their community and have the ability to access places and resources in a timely, safe, and convenient manner.

Creating a Culture of Engagement

Individuals enhance community life by participating in and supporting civic groups, discussion groups, public-private partnerships, and other activities that seek to understand and address community needs and opportunities. As a result, residents feel they can make a difference and work in partnership with others to understand and address pressing public needs.

Exercising Corporate Stewardship

Fairfax County government is accessible, responsible, and accountable. As a result, actions are responsive, providing superior customer service and reflecting sound management of County resources and assets.

PROGRAM PLANNING FOR RESULTS

Program planning is an outgrowth of the strategic planning exercise. It may be viewed as the ways and means of making your strategic plan operational. Simply put, program planning outlines the details of execution of the programs and activities that support and fulfill the outcomes and goals specified in your strategic plan. This process is ongoing, although it is done at a high level at least once annually. In the example used above (which also appears below), you can also see how performance measures are developed into not only the strategic plan, but also in the activities and outputs of a given program. You can include performance measures in your agency strategic plan:

PROGRAM PLANNING FOR RESULTS: Performance Measures In Your Strategic Plan	
Outcome	▪ Increased self-sufficiency in Fairfax County through increased employment
Performance Measure Outcome	▪ Decrease in welfare (ratio of dollars paid to number of clients)
Action Step #1	▪ Improve technical skill set of clients to meet the hiring needs of County businesses
Performance Measures for #1	▪ Increase percent of clients with adequate technical skills for standard employment ▪ Increase percent of clients completing continuing education for high-wage career advancement
Outputs #1	▪ # of clients trained for standard employment ▪ # of clients trained for high-wage employment
Output Activities #1	▪ # of different courses offered ▪ # of training courses held ▪ # of local employer surveys completed ▪ # of career counseling sessions held ▪ # of local employers offering continuing educational assistance

The tips and techniques used in the remainder of this manual will aid County staff in developing and maintaining strong ties between results and performance measures that will result in sound, comprehensive and relevant program planning.

BUDGET IMPLICATIONS OF PERFORMANCE MEASUREMENT

Performance measurement information helps in the development of the annual budget by providing data used to set performance goals, as well as allocate and prioritize resources. It is also used to inform managers whether current policy or program directions are meeting those goals, and finally to report on the success of meeting those goals to the Board of Supervisors and the public. There are budget implications with any performance measurement system. Performance measures provide an empirical basis for strategically allocating and prioritizing resources to meet the needs and expectations of County residents, and to bring about the results they expect.

Senior County managers and agency managerial staff have several tools to help in the decision-making process both within the budget process and within the planning process. There are several reports (see figures 2 through 5), generated by DMB's Performance Measurement Database, that are reviewed by senior County management to monitor performance. The reports provide a starting point or baseline for discussion with agency management on their overall performance.

Performance measures are an integral part of overall agency accountability. In terms of accountability, the County Executive meets with department heads and staff every fall to close the loop on the process by ensuring that agency strategic plans are linked to its performance measures, and to assess if agencies are tracking and using their performance measures to improve. If an agency does not like the results data which it is seeing, it can change what it is doing and improve day-to-day operations to better meet its targets and expectations. Agencies come to these fall meetings prepared to discuss their plans to implement change and improvements in these lagging areas. Obviously, some variables (e.g., weather, economy, etc.) are outside an agency's span of control, but where an agency can influence variables, e.g., scheduling, resources, training, etc., a rigorous and constant review of performance measures will enable them to monitor trends and implement solutions to improve the way its does business.

Five Year Historical Data

001, General Fund
Department of Management and Budget

Management And Budget

Objective

To maintain a variance of 2.0 percent or less between estimated and actual revenues and expenditures.

Performance Indicators

Indicator	FY 2001 Actual	FY 2002 Actual	FY 2003 Actual	FY 2004 Actual	FY 2005 Actual
Output					
Dollar value of budgets reviewed (in billions)	$3.61	$3.96	$4.01	$5.01	$4.62
Efficiency					
Authorized budget analysts per 1,000 population	0.026	0.026	0.024	0.022	NA
Budget Analysts per 1,000 population	1:37	1:38	1:42	1:46	1:43
Service Quality					
GFOA Distinguished Budget Presentation Award	Yes	Yes	Yes	Yes	Yes
Outcome					
Percent variance in actual and projected revenues	0.2%	0.6%	1.0%	1.3%	1.2%
Percent variance in actual and projected expenditures	2.0%	1.8%	2.5%	2.5%	2.4%

Figure 2: Five Year Historical Data Report

Performance Measurement Agency Preview

001, General Fund
Department of Management and Budget

Management And Budget

Objective

To maintain a variance of 2.0 percent or less between estimated and actual General Fund revenues and expenditures.

Performance Indicators

Indicator	Prior Year Actuals FY 2003 Actual	Prior Year Actuals FY 2004 Actual	Prior Year Actuals FY 2005 Estimate/Actual	Current Estimate FY 2006	Future Estimate FY 2007
Output					
Dollar value of budgets reviewed (in billions)	$4.01	$5.01	$4.75 / $4.62	$5.22	$5.51
Efficiency					
Budget Analysts per 1,000 population	1:42	1:46	1:43 / 1:43	1:44	1:44
Service Quality					
GFOA Distinguished Budget Presentation Award	Yes	Yes	Yes / Yes	Yes	Yes
Outcome					
Percent variance in actual and projected revenues	1.0%	1.3%	2.0% / 1.2%	2.0%	2.0%
Percent variance in actual and projected expenditures	2.5%	2.5%	2.0% / 2.4%	2.0%	2.0%

Figure 3: Performance Measurement Agency Preview Report

Targets Met Summary By Cost Center
FY 2005

001, General Fund
Department of Management and Budget

Management And Budget

Indicator	Total	Met	Percent Met	Substantially Met	Percent Met + Sub	Indicators Not Counted
Output	6	5	83.33%	0	83.33%	0
Efficiency	2	1	50%	0	50%	0
Service Quality	2	2	100%	0	100%	0
Outcome	5	3	60%	0	60%	0
Totals	**9**	**6**	**66.67%**	**0**	**66.67%**	**0**

Figure 4: Targets Met Summary By Cost Center Report

Targets Met Detail By Cost Center

001, General Fund
Department of Management and Budget

Management And Budget

Objective

To maintain a variance of 2.0 percent or less between estimated and actual revenues and expenditures.

Performance Indicators

Indicator	Prior Year Actuals FY 2003 Actual	FY 2004 Actual	FY 2005 Estimate/Actual	Target Met Status FY 2005
Output				
Dollar value of budgets reviewed (in billions)	$4.01	$5.01	$4.75 / $4.62	Not Met by 2.74%
Efficiency				
Budget Analysts per 1,000 population	1:42	1:46	1:43 / 1:43	NA
Service Quality				
GFOA Distinguished Budget Presentation Award	Yes	Yes	Yes / Yes	Met
Outcome				
Percent variance in actual and projected revenues	1.0%	1.3%	2.0% / 1.2%	Exceeded by 40%
Percent variance in actual and projected expenditures	2.5%	2.5%	2.0% / 2.4%	Not Met by 20%

Figure 5: Targets Met Detail By Cost Center Report (By Indicator Level)

BUDGET PROCESS REDESIGN AND BUDGET NARRATIVE ENHANCEMENTS

The **budget** is the County's operational guide that outlines agency strategic actions for a particular budget year. (Agencies may also have separate detailed operational guides.) Furthermore, the budget presents the entire County activity plan for the budget year, and provides perspective on the supporting financial/revenue base that allows the accomplishment of budget year goals.

A budget directed to articulate strategic goals, which effectively and efficiently utilizes resources to meet customer needs and expectations, supports a **High Performance Organization**.

> "If you can demonstrate success, you can win public support."
>
> - David Osborne and Ted Gaebler, *Reinventing Government*

Performance measures play an integral role in the development of your agency's budget and, what information is communicated in the published budget. As part of the Budget Process Redesign (BPR) effort, the published budget has been enhanced to reinforce the strategic linkage between the County's core purpose, vision elements, budget, and performance measures.

Budget Narrative: Agency Focus

The *Agency Focus* section in the budget narrative provides a "big picture" description of the agency's purpose, as well as a discussion of elements from the agency strategic planning document, including outcomes, initiatives and/or key economic, political, or environmental components driving the agency budget or impacting future planning. Information may include:

- Agency trends
- Relationships with Boards, Commissions, and Authorities etc.
- General Fund or Other Fund revenue sources
- Key drivers influencing how an agency conducts business

This section also includes a "Thinking Strategically" component which emphasizes the agency's focus on meeting the strategic challenges that lie before it.

Focus

The Office of Human Rights is dedicated to improving the quality of life in Fairfax County so every person may fully enjoy all of the opportunities available in an environment free of illegal discrimination.

The agency is responsible for staffing the Human Rights Commission. The Commission is charged with enforcing the Fairfax County Human Rights Ordinance. The agency receives and investigates complaints filed by any person who believes he/she has been discriminated against in Fairfax County in violation of the County's Human Rights Ordinance. Persons may file discrimination complaints on the basis of race, color, sex, religion, national origin, marital status, age, familial status (applies to housing only), or disability in the areas of employment, housing, public accommodations, private education, or credit. The Commission also provides educational services to employers, the housing industry and other businesses in Fairfax County concerning compliance with the Ordinance.

In addition to the above, the agency manages the County's Fair Housing Plan and implements its strategies by conducting and reporting on fair housing tests, filing fair housing complaints when necessary, training rental agents and housing counselors in the County's rental market, establishing and staffing the Commission's Fair Housing Task Force, and continuing to study and report on the County's fair housing needs.

In order to meet the agency's mission and pursue its vision, agency staff intends to serve Fairfax County through civil rights enforcement, complaint resolution, education and outreach. The staff is dedicated to consistently and efficiently providing superior service to the public and ensuring that the agency's service options and processes are clear to all concerned. The staff will identify, develop and maintain an organizational structure that implements the agency's objectives and priorities, and will adopt systems and procedures that maximize efficient use of the agency's resources. Further, the agency's goal is to adopt and maintain effective information technology solutions to enhance delivery of the agency's services.

THINKING STRATEGICALLY

Strategic issues for the Department include:

- Investigating and resolving discrimination complaints fairly and more efficiently;
- Educating citizens and organizations about their civil rights and responsibilities;
- Continuing to implement the agency's new relationship with the Department of Housing and Urban Development (HUD) allowing the agency to investigate federal fair housing cases; and
- Designing and implementing a formal mediation program to help resolve cases quickly.

Figure 6: Focus Section in Budget Narrative

Budget Narrative: New Initiatives And Recent Accomplishments

This new section of the budget – *New Initiatives And Recent Accomplishments In Support Of The Fairfax County Vision* – focuses on key accomplishments that an agency achieved in the immediate past and highlights its new initiatives, new programs or reorganizations. New initiatives and recent accomplishments should be consistent with the agency strategic plan and tie to one or more countywide *Vision Elements*.

New Initiatives and Recent Accomplishments in Support of the Fairfax County Vision

Maintaining Safe and Caring Communities	Recent Success	FY 2007 Initiative
Created a redesign/implementation team to address the agency's redesign process, which is intended to generate better documentation, as well as enhance efficiency and provide better outcomes for the agency.	☑	☑
Conducted accessibility testing in the County's rental market to establish a baseline for how accessible the County's multifamily rental units are to persons with disabilities.	☑	
Conduct a lending study in the County's mortgage market to determine the most recent effect of the market's practices with regard to the amount of sub-prime lending in the County and the demographics of that effect with regard to White, Black, Hispanic, and Asian applicants.	☑	

Figure 7: New Initiatives and Recent Accomplishments Section in Budget Narrative

Budget Narrative: Key Performance Measures

One of the foundations of the County's successful budgeting for results approach is its association with key performance measures at the cost center level. There are four integral elements of the performance measures published in the budget:

- Cost Center Goal
- Objectives
- Performance Measure Indicators
- Performance Measurement Results

Budget Narrative: Cost Center Goal

A cost center encompasses activities related directly to providing a distinct service or group of related services. It is generally a functional division of the agency with readily identifiable resource needs that produce corresponding measurable results or outputs. While a cost center goal must be defined within the context of the overall agency goal, it must also specify the aim and intention of the activities directly related to the cost center. The existing goal(s) should be reviewed to determine consistency with the agency's strategic plan.

Budget Narrative: Objectives

Objectives are quantifiable achievements - concrete, specific, and measurable. Objectives remain relatively fixed from year to year, changing slowly over time to maintain continuity. Objectives should be challenging yet attainable, such that they are consistent with existing policies and practices and available or anticipated resources, and within the manager's authority to implement. To develop specific, measurable objectives, think in terms of how the agency will know when it has reached the objective. Focus on questions such as: What? Where? How much or many? Cost? By when? By answering such questions, the objective will be clearly defined and easily monitored by Performance Measurement.

Key Performance Measures

Goal

To improve the quality of life in Fairfax County so that every person may fully enjoy all the opportunities available in an environment free of illegal discrimination.

Objectives

- To reduce the average number of days to close a case by at least 10 percent.
- To reduce the number of cases pending at the end of the fiscal year by at least 10 percent.
- To reduce the average age of cases pending at the end of the fiscal year by at least 10 percent.

Figure 8: Goal and Objectives

Budget Narrative: Performance Indicators

Performance Measures enable an agency to monitor and evaluate the achievements of the cost center objectives. Current performance measures will be maintained in this section; however, agencies should evaluate measures to determine consistency with the *Agency Focus* and *strategic plan*.

Indicator	Prior Year Actuals			Current Estimate	Future Estimate
	FY 2003 Actual	FY 2004 Actual	FY 2005 Estimate/Actual	FY 2006	FY 2007
Output:					
Cases processed	1,031	1,090	930 / 911	789	769
Cases closed	473	581	500 / 522	420	400
Cases pending at the end of the fiscal year	549	504	471/ 389	369	369
Efficiency:					
Cost per case processed	$1,178	$1,053	$1,283 / $1,311	$1,600	$1,692
Average investigative staff hours per case closed	50	37	44 / 36	44	47
Cases processed per investigator (SYE)	86	99	85 / 96	83	81
Cases closed per investigator (SYE)	38	52	41 / 55	45	42
Service Quality:					
Average days required to close a case	465	372	335 / 309	369	320
Average age of pending cases at the end of the fiscal year (in days)	501	475	427 / 605	500	450
Outcome:					
Percent change in average number of days to close cases	14%	(20%)	(10%) / (17%)	19%	(13%)
Percent change in number of cases pending at the end of the fiscal year	(12%)	(8%)	(7%) / (23%)	(5%)	0%
Percent change in the average age of cases pending at the end of the fiscal year	12%	(5%)	(10%) / 27%	(17%)	(10%)

Figure 9: Performance Measures in Budget Narrative

Budget Narrative: Performance Measurement Results

The Performance Measurement Results section of the budget should include a discussion/analysis of how the cost center's performance measures relate to an agency's provision of activities, programs and services. The results of the existing performance measures should be discussed as well as the action plan for accomplishing future goals and meeting performance targets. If applicable, an agency should focus on successes as well as the reasons why some targets were not met and discuss future targets in this section as well. In addition, agencies should identify how performance measures tie to their agency strategic plans and any countywide vision elements supported by the Cost Center.

Performance Measurement Results Discussion Example:

Agency Case Study: Department of Systems Management for Human Services

The Department of Systems Management for Human Services' performance measures are divided into two service areas: Coordinated Services Planning (CSP), which reflects efforts to provide timely assistance to County residents and connect them with public or private resources to meet their human service needs; and Systems and Service Integration, which include system-wide and regional service integration activities and the analysis and dissemination of the County's demographic information.

The family of measures for CSP reflects 111,400 client service interactions in FY 2006. The number of FY 2006 CSP interactions is substantially lower than the FY 2004 actual of 119,474 as a result of the Department's strategic planning efforts and the refocusing of CSP work on its core mission as a social work call center. Most significantly, in FY 2004, the Department worked intensively with the Health Department, the Department of Family Services and the Medical Care for Children Partnership to redesign access to healthcare. The new process streamlines the eligibility determination process for persons seeking access to healthcare, ensuring that children and adults are matched with the most appropriate and cost-effective source of health care, including Medicaid, SCHIP, CHCN, or public/private collaborative partnerships for uninsured children. As a result of the redesign, CSP transferred 3/3.0 SYEs and their associated workload to the Department of Family Services' Healthcare Access Assistance Teams.

Budgeting For Results

The primary financial management tool used by the County is the annual budget. The budget allocates resources to meet community needs and aligns budget expenditures with consensus-based priorities. An implicit aspect of this process is "justification" which is where performance measures provide a strong empirical and factual basis for programs and services that clearly deliver strong, measurable results. Without strong performance measures, programs and services run the risk of more intense public scrutiny and re-evaluation for their continued existence. Theoretically, at least in some respects, the money will follow the measures.

IDENTIFYING PROCESSES TO BE MEASURED

This step begins the formal process of managing for results. In order to begin any system of measurement, you first have to identify what you want to measure. In identifying any process, possessing an understanding of **what** you want to measure is imperative. Any given County agency has many processes and functions, each of which needs or has data that can be used for performance measures. If your agency or cost center has multiple processes, consider the business or customer impacts of these processes, and select those processes that are most important to the customer (both internal and external) to satisfy their requirements and/or those processes with problem areas identified by management.

As many have learned by experience, much effort can be wasted if you do not start with a well-defined process. To simplify your system of work, consider the following four fundamental questions:

1) What do we do? (products)

2) How do we do it? (processes)

3) Whom do we do it for? (customers)

4) Why do we do it? (outcomes or results)

IDENTIFYING CRITICAL PROGRAM ACTIVITIES TO BE MEASURED

In any given process, there are typically many activities – some of which may or may not need to be measured. Consequently, it is important at this stage to choose only those activities that are critical and meaningful to the public and senior management. Activities are measured to facilitate control and strategic and operational direction. It is imperative that you focus on key areas and processes rather than incumbents or positions when choosing your critical activities to be measured.

Typically, critical activities are those that significantly impact total process efficiency, effectiveness, quality, timeliness, productivity, or safety, and play a key role in achieving an agency's program goals. In addition, at the management level, critical activities impact management priorities, organizational goals, and external customer goals. By keeping a customer-centered focus, you can ensure that your performance measures are relevant to the public and focused on results. In order to ensure that any given activity is critical, verify the following:

- Is it something that should be continuously improved?

- Does the benefit exceed the cost of taking the measurement for this activity?

If there is uncertainty or even ambiguity surrounding your answers to these questions, your team should reevaluate if the activity meets the criteria of being "critical."

At this juncture, it is important to think about what you want to know or understand about the critical activity and/or process. Furthermore, in relation to the activity or process, you should answer the question: "What do I want to know about this activity or process?" Subsequently, the key issue then becomes, "How do we generate useful information about this activity or process?" At this point, the next thing we do is establish performance goals and objectives.

ESTABLISHING PERFORMANCE GOALS

All performance measures should be tied to a predefined goal. Having goals and objectives is the only way to meaningfully interpret the results of your measures and gauge the success of your agency's performance management system.

Goals and objectives are necessary; otherwise there is no logical basis for choosing what to measure, what decisions to make, or what action to take in the wake of evaluating your progress and results. Performance goals can stem from either a management directive or they can be determined in response to customer needs or complaints. It is imperative to know your customers and their expectations. For each critical activity selected for performance measurement, it is necessary to establish a performance goal. In the performance measurement lexicon, this is essentially a target. Targets can vary on how they are determined, including standards being imposed by external regulatory standards or mandates, or reviewing what other comparable high-performing jurisdictions have implemented. Irrespective of this determination, the bottom line with targets and goals is the need to have a sound basis for future comparison.

As noted in the other performance measurement manuals, sound performance goals or standards are:

- Accountable: Staff should be empowered with ability and capacity to achieve the goals.
- Adaptable: Should be designed so that elements can be added, changed, and brought up to date without redoing the entire goal.
- Applicable: Should fit the conditions. If conditions vary, the goal or standard should contain built-in flexibility to meet variables.
- Attainable: Should be met with reasonable effort under the conditions that are expected to prevail.
- Consistent: Should help to unify communication and operations throughout all functions of County government.
- Customer-Centered Focus: Should address areas important to the customer (internal/external) such as cycle time, quality, yield, cost schedule performance, and citizen satisfaction.
- Economic: Cost of setting and administering the goal or standard should be low in relation to the activity covered.

- Equitable: Should be accepted as a fair basis for comparison by the staff who have the job of meeting the goal or standard.
- Legitimate: Should be within the bounds of propriety and acceptability of senior management and the Board of Supervisors.
- Measurable: Should be able to be communicated with precision.
- Numerical: Goals should be associated with a number so it will be intuitive if they have been achieved or not.
- Realistic: Performance goals and standards should be grounded in today's reality with the prospect of reaching tomorrow's results.
- Results-Oriented: Goals should be intrinsically interwoven with outcomes and results that benefit community residents.
- Specific: Goals should be specific and not subject to guesswork upon examination.
- Stable: Should have a long enough life to provide predictability and to be worth the effort of tracking them.
- Time-Bound: Goals should be associated with a finite time frame, e.g., per year.
- Understandable: Should be expressed in simple, clear terms, to avoid misinterpretation or vagueness.

Goals are important in helping to answer the question: "How will we know when we get there?" Coupled with performance measures, goals also enable you to take action when and if progress isn't satisfactory. Setting goals is important because you can spend a lot of resources trying to achieve them. Here are some other considerations that might help you and your agency in setting performance measurement-related goals:

- Can staff involved in the process evaluate their individual contributions to the goal?
- Is there an intrinsic limit or ceiling with your goal?
- Is there a safety limit associated with the related activity?
- Is there a required or mandated minimum level of performance?
- What is the point of diminishing return at which point the return is no longer worth the investment of staff time and resources to accomplish?
- How well are other agencies/jurisdictions doing with a similar process?

ESTABLISHING AND UPDATING PERFORMANCE MEASURES

For most – if not all – County-related activities, it is preferable to manage and guide change or improve performance with a well thought out plan that includes clear goals and useful indications of progress toward a desired result. Your staff must know what goals and outcomes are expected of them, where their work contributes to the overall goal, how well things are progressing, and what will happen if results are not occurring as they should. This sensible approach integrates performance measures with program activities.

This tightly woven integration makes it possible for performance measures to be effective catalysts for change. For instance, if the measures quantify results of an activity, one only needs to compare the measured data with desired goals to know if further actions are required to achieve the desired outcomes.

In many cases, inappropriate or ill-defined measures are often the results of random or haphazard selection methods. All too often it is easy to succumb to the temptation to think about what is possible and provide long lists of what *could* be measured. Unfortunately, such efforts by themselves do not provide reliable lists of what *should* be measured. Unless the measures are firmly connected to results from a defined and managed process, it is difficult to know what corrective actions to take to get back on track or course, and to rationally predict with confidence what effects the prescribed changes will have. Performance measures will help you identify which specific processes need to be changed when progress is not satisfactory. These specific measures will help you identify the root cause of the problem and enable you to implement the correct and necessary changes to rectify any such identified problems.

While there is no specific formula or criteria for selecting performance measures, there are some characteristics typical of good measures in which they:

- reflect results, not the activities used to produce results;
- relate directly to a performance goal;
- are based on measurable data;
- contain normalized metrics for benchmarking;
- are practical and easily understood;
- are objective (as opposed to subjective)
- provide a basis for continual self-assessment;
- provide a benefit that exceeds the cost; and
- are accepted by your department/agency and have owners.

The first criterion is important because it is very tempting to select measures that are easy, while determining and developing the right measures can be very difficult. For example, the effects of training can be very hard to assess. It can be time-consuming to interview employees and managers to find out if the training has improved worker abilities on the job. Rather than spend the time conducting interviews to ascertain the derived benefits, some people will change the corresponding performance measure to read something like "the number of class hours completed" (essentially a useless measure unless it is accompanied by some measure of acquired skills).

High performing organizations use performance measurement systems to determine whether they are fulfilling their vision and meeting customer-focused strategic goals. In fact, performance measurement translates an organization's mission, vision and strategy into tangible objectives and outcomes. To develop dynamic and catalytic performance measures that accomplish this, performance measurement must meet the following criteria:

- ***It has a strategic focus.*** The goals, objectives, and indicators an organization establishes should be focused on a critical few. It is neither possible nor desirable to measure everything.

- ***The right things are measured***. Before deciding on specific measures, an organization should identify and thoroughly understand the processes to be measured. Then each key process should be analyzed and taken apart to ensure that it is understood in-depth, and that critical success factors are identified and linked to the measures. It is imperative that you measure the right things. All too often people collect too much data which can bury useful information and paralyze decision-making. Thus the effort of collecting such data can outweigh the benefit of having the data. So, simply put, stick to two guiding principles of effective performance measurement: (1) measure what really matters; and (2) keep it simple.

  Implicit in measuring the right things is to focus on value from the customer's perspective. What is important to your customer? What measure do you think they would use to decide how well you are satisfying their needs? If you compare the answer to this question with the performance measure you are actually using, you may find that they are not the same.

  The tendency for some is to measure *activity* in the process, e.g. "the number of customers served per month." Will this kind of measure *really* tell you how well a process is performing? A meaningful performance measure is one that tells you how well the process is achieving its *purpose*. If the purpose is to meet demand and also serve customers "right the first time," a meaningful performance measure must reflect this. The "number of customers served per month" does not necessarily have to be concerned with doing it "right the first time." You can intuitively see from this example how a performance measurement indicator can be become divorced or separated from the purpose or true outcome of an agency program. Unfortunately, it is common for some organizations to measure *activity* (i.e., we look busy) rather than *purpose*. Of course, activity measures are easier to achieve than measures focused on and tied to purpose or outcomes which is why some inadvertently go down this road.

Some other examples of *activity* versus *purpose* measures would be:

"Activity" Measure	"Purpose" Measure
Number of site visits per week	Number of successful / completed visits per week
Number of telephone calls taken per day	Number of queries / problems resolved per day
Number of training courses delivered	Number of people successfully applying the new skills

- ***It is multi-dimensional.*** The focus is not solely on cost or volume. Performance is measured and evaluated from a variety of perspectives such as a Family of Measures (output, efficiency, service quality, and outcome) or Balanced Scorecard (internal, financial, customer, learning and growth). The underlying premise of an effective performance measurement system focuses on "what" an agency provides to help their customers achieve some desired outcome rather than "how" you accomplish it.

- ***It is a means, not an end.*** In best-of-class organizations, employees and managers understand and work toward the desired outcomes that are at the core of their organization's vision. They focus on achieving goals and use measures to gauge progress toward achieving those goals, but do not focus exclusively on the measures per se. Creating good performance measures should be a means for improving decision-making, program performance, and public accountability. In addition, performance measures can be the catalyst for innovation and creativity to improve programs and processes, and eliminate activities that do not contribute to desired outcomes or results.

What Should Be Measured?

In order to meaningfully inform your agency, the public, as well as policy and decision makers, your performance measures should be directly or indirectly related to the following if they are to be meaningful and useful tools for bringing about change in your organization:

> "…citizens want government to deliver quality services that yield **good results** (and do it without raising taxes)."
>
> - Jonathan Walters, *Measuring Up: Governing's Guide to Performance Measurement for Geniuses* (and Other Public Managers) (Washington, D.C.: Governing Books, 1998), p. 6.

- Financial considerations
- Customer satisfaction
- Results

In Fairfax County, we use a methodology that focuses on linking quantified objectives to cost center goals and a set of performance indicators known as the Family of Measures. This relationship is shown below:

Agency Mission

↓

Cost Center Goal

↓

Objectives that are quantified and time-based (what will be accomplished during the fiscal year)

↓

FAMILY OF MEASURES:

- **Output**
- **Efficiency**
- **Service Quality**
- **Outcome**

Fairfax County's methodology for measuring performance is summarized in four steps:

Step #1: Review and evaluate existing agency mission and cost center goals.
This is done to ensure they are still current and address the service or product provided and who the customer is, as well as a statement of accomplishment, i.e., the intended benefit of the service or product.

Step #2: Identify service areas.
These are major activities that typically consume a major portion of the cost center's budget, are critical to the success of the agency's mission, have a significant customer focus, and/or are politically sensitive.

> "What gets measured, gets done."
>
> - Anonymous

Step #3: Define service area objectives.
These are outcome-based statements of specifically what will be accomplished during the budget year. Objectives support the cost center goal statement, reflect planned benefit to customers, are written to allow measurement of progress, and are quantifiable within the fiscal year time frame. Note that objectives are specific targets for improved performance derived from an agency's outcomes. Objectives are tied to outcomes and conversely, outcomes are tied to objectives.

Define Service Area Objectives:

Agency Case Study: Fairfax County Public Libraries (FCPL)

The Library reviews its objectives for each cost center annually. In a "good" economic climate, its objectives would seek to "grow" the business or strive for increases in everything from customer satisfaction to the number of registered active cardholders as a percent of the population. However, in the current economic climate of continued budget cuts, FCPL recognizes that goals of increasing business are not realistic. Therefore, beginning with the FY 2005 budget, FCPL modified its goals to reflect its focus on **maintaining** rather than increasing levels of service. It is entirely possible that it will need to further revise its goals to reflect decreases that it may face in the future.

Step #4: Identify indicators that measure progress on objectives.
Indicators are the first-level data for reporting performance, and where possible, at least one output, efficiency, service quality, and outcome indicator should be developed for each service area objective (Family of Measures).

The Performance Measures Basic Manual ("Measures Up") covers Fairfax County's methodology for performance measures, and it encompasses a *Family of Measures* approach in order to present a balanced picture of performance instead of focusing narrowly on a single aspect such as quantity produced (output) or cost (efficiency).

The *Family of Measures* includes the following types of indicators:

Terminology	Definition	Examples
Input	Value of resources used to produce an output.	• Dollars budgeted/spent • Staff hours used
Output	Quantity or number of units produced. Outputs are activity-oriented, measurable, and usually under managerial control.	*Output:* • Eligibility interviews conducted • Library books checked out • Children immunized • Prisoners boarded • Purchase orders issued
Efficiency	Inputs used per unit of output (or outputs per input).	• Cost per appraisal • Plans reviewed per reviewer
Service Quality	Degree to which customers are satisfied with a program, or how accurately or timely a service is provided.	• Percent of respondents satisfied with service • Error rate per data entry operator • Frequency of repeat repairs • Average days to address a facility work order
Outcome	Qualitative consequences associated with a program/service, i.e., the ultimate benefit to the customer. External forces can sometimes limit managerial control. Outcome focuses on the ultimate "why" of providing a service.	• Reduction in fire deaths/injuries • Percent of job trainees who hold a job for more than six months • Percent of juveniles not reconvicted within 12 months • Adoption/redemption rate of impounded animals

Determining a Baseline and Targets

Once an organization has decided on its performance measures, the next step in the process is to determine a baseline for each of the measures selected. Once data are collected for the first time on a particular measurement, the organization then has *baseline data*.

Determining appropriate targets for each measure after the baseline data are collected can be accomplished in several ways. Many organizations noted for high performance use various statistical analysis techniques as well as benchmarking to set goals for future performance.

A common practice is to set objectives that will force the organization to "stretch" to exceed its past performance. By benchmarking, the organization can validate the fact that the objectives are still attainable. For example, a target of 100 percent customer satisfaction may be an admirable goal for any organization. However, if industry standards have been at 80 percent, a target of 100 percent

may not be realistically attainable. Setting a 100 percent target anyway can easily demoralize employees by giving them an essentially impossible target. An organization may also consider any applicable state or federal benchmarks, or what has been done by comparable jurisdictions that are high-performing to inform its target setting. Organizations should set targets that motivate employees and elicit commitment. On the other hand, if an objective is set so low that achieving 100 percent can be done with little effort, it invites cynicism and disinterest on the part of employees and the public, and potentially a loss of credibility in reported measures.

> "Each organization must create and communicate performance measures that reflect its unique strategy."
>
> - Dr. Robert S. Kaplan, Harvard Business School

To this end, it is important to provide information on performance objectives and results to employees. It is a best practice in performance measurement to provide information on key objectives to employees through whatever means is appropriate including Intranet, newsletters, and bulletin board displays. These methods increase their understanding of the agency's mission, goals and objectives and unify the workforce behind them.

Recently, as of the FY 2005 budget process, the County has begun publishing benchmarking data in the program area summaries of the General Fund budget (Volume 1):

Benchmarking

Since 2000, Fairfax County has participated in the International City/County Management Association's (ICMA) benchmarking effort. Over 130 cities and counties provide comparable data annually in 15 service areas. Not all jurisdictions provide data for every service area, however. The only one for which Fairfax County does not provide data is Roads and Highways because the Commonwealth maintains primary responsibility for that function for counties in Virginia. The agencies in this program area that provide data for benchmarking include the Department of Human Resources, the Department of Purchasing and Supply Management, and the Department of Information Technology. While not a comprehensive presentation of all agencies in this program area, the benchmarks shown provide a snapshot of how Fairfax County compares to others in these service areas. This should be a viewed as a first step, with additional research to be undertaken in the future to determine if there are other means by which we can compare County performance more comprehensively for this program area. It should be noted that it is sometimes difficult to compare various administrative functions due to variation among local governments regarding structure and provision of service. It should also be noted that there are approximately 2,000 program-level performance indicators found throughout Volumes 1 and 2 for those seeking additional performance measurement data.

Participating local governments (cities, counties and towns) provide data on standard templates provided by ICMA in order to ensure consistency. ICMA then performs extensive checking and data cleaning to ensure the greatest accuracy and comparability of data. As a result of the time to collect the data and undergo ICMA's rigorous data cleaning processes, information is always available with a one-year delay. FY 2002 data represent the latest available information. The jurisdictions presented in the graphs on the following pages generally show how Fairfax County compares to other large jurisdictions (population over 500,000). In cases where other Virginia localities provided data, they are shown as well.

Figure 1: Benchmarking Section in Program Area Summary (Budget Narrative)

The County also publishes several relevant benchmarking charts in these portions of the budget document to underscore how well it is doing in comparison to other jurisdictions of similar size and responsibility:

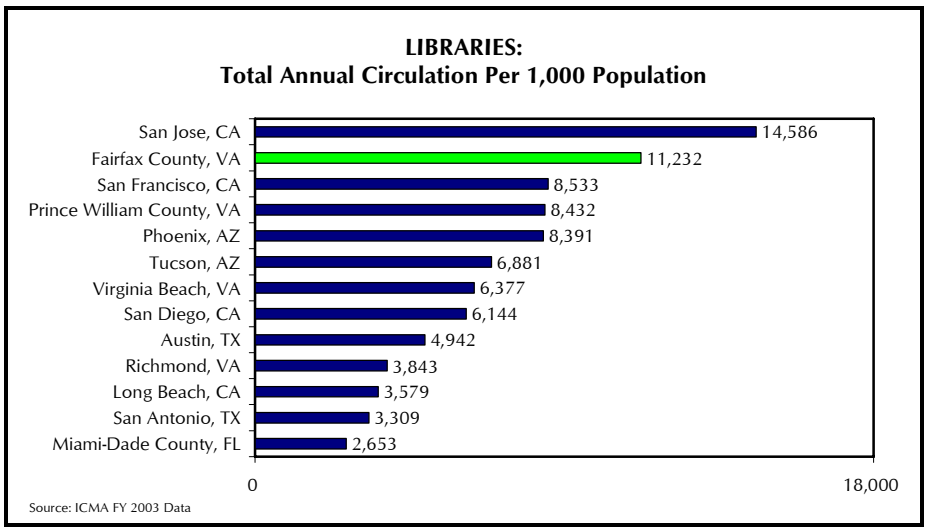


Figure 10: Example of Benchmarking Chart in the Program Area Summary (Budget Narrative)

Review Performance Measures

An important aspect of performance measurement is its iterative quality or repetitive nature. Organizations should continually assess whether their current measures are sufficient or excessive, are proving to be useful in managing the agency, and are driving the organization to the right results. Ultimately, performance measurement must be "value-based." When measures become obsolete, they should be discarded and replaced with more appropriate ones. Refining and changing measures is both healthy and necessary; however, it must be balanced with the need to retain accountability. In other words, constant replacement of measures should not be done to circumvent the establishment of trends that provide key data on performance.

Important Note: If your agency changes its performance measures, you are still obligated to report on any data that has been previously published, and, consequently, you must update the prior year actuals in the PM Database application.

Continuous and regular reviews of measures, as they relate to an organization's strategic plan and corresponding goals, are key to successful performance measurement. They not only help in deciding the right things to measure, but provide needed information to assess progress toward meeting the goals of all levels within that organization. Performance measurement serves no purpose if the data are not used to improve performance.

IDENTIFYING KEY STAFF RESPONSIBLE FOR PERFORMANCE MEASUREMENT PROCESSES

A specific entity (as in a team or an individual) needs to be assigned the responsibilities for each of the following steps in the performance measurement process**:**

- collecting the data;
- analyzing the data and reporting actual performance;
- comparing actual performance to predefined goals;
- determining if corrective action is necessary; and
- making changes.

It may be the same person who performs or these tasks, but more likely it will be several individuals, depending on the size of your agency. Ideally, responsibility should be assigned to individual staff commensurate with their authority and ability to appropriately perform their assigned tasks. This means that each responsible party should:

- know what the goals and objectives are;
- know what the current and actual performance is;
- have the skills and training to adequately accomplish their assigned tasks; and
- be empowered with the requisite authority to implement changes in the process if performance does not meet goals or targets.

To hold someone responsible in the absence of authority prevents them from performing their job and creates the risk of unwarranted blame – neither of which is desirable.

Typically, agencies should determine what performance data they require, where it is located, where it will be collected, and by whom. To proceed, they must determine how they will actually measure or collect what data they need.

Sensors are used to collect some data, depending on the complexity and technical nature of the data being collected. For instance, for technical data collection, sensors are used to accurately measure length (micrometer), temperature (thermocouple), voltage (digital voltmeter or digitizer), and other very precise measurements. For less technical processes, staff can use databases, log books, time cards, and check sheets. In some cases, an automated sensor makes a measurement and a person records the results. In other cases, only a human is capable of "sensing" some phenomena and some other device is used to record the result. In fact, many inspection activities can only be performed by humans, while there are also automated data collection systems or sensors that require no human intervention other than periodic calibration and/or maintenance. Choosing a sensor or a human for data collection usually depends on the answers to some questions about your desired measurements:

- What am I trying to measure?
- What kind of data are they?
- Where will I make the measurement?
- Where are the data?
- Am I simply trying to measure the presence or absence of some feature? (For example, "Was the order placed?," "Was the report delivered?," or "Did the computer help desk solve the problem?")
- Do I need to sense the degree or magnitude of some feature or perform a count of quantity?
- How accurate and precise must my measurements be?
- Do the measurements occur at a particular point in time or space?

In most cases, the sensor will probably be obvious; nevertheless, you should be prepared to give some thought as to how you will measure and collect your data.

The type of sensor you determine will also be influenced by the frequency of measurement required. There are two distinct types of measures. One type of measure is the performance measure itself. This measure is generally taken (calculated) and reported over some regular or repeating time interval. Some performance measures are used to observe real-time trends in a process and may be measured and plotted daily. In general, the frequency of measurement for the performance measure is usually determined when the performance measure itself is determined. Often the unit of measure chosen as the performance measure contains or alludes to the frequency of measurement. The other measure that should be addressed is that of the raw data itself. The frequency with which raw data are collected or measured may have a significant impact upon the interpretation of the performance measure. For some performance measures, this requires you to determine how many data are needed to make the measure valid or statistically significant. For instance, you will have to determine how often measurements must be made (data taken) to ensure statistical significance and credible results. For example, in the latter type, raw data may be captured every time a customer performs an action, e.g., a library patron checks out a book or someone uses a County vehicle for the day, and these actions are logged in as a consequence of that action. It could be said then that the frequency of measurement or data collection is continuous, that is, data are recorded every time a transaction occurs.

COLLECTING THE DATA

Ultimately, you want performance measurement data to allow managers to focus on managing instead of worrying about how to collect and organize your agency's data. Database technology enhances data retrieval and tracking which leads to better accuracy, reliability, and timeliness. Unless data are summarized, sorted and stored, it remains unusable for managers to make timely and informed decisions. While data in its raw form is understandable, it is not usable. Managers require data that are compiled properly and thoughtfully and can convert the data into information. In addition, managers need data that is immediately accessible, has the capacity to be sorted, and is capable of multiple level summaries.

Many tools for effective performance measurement are readily available. Most organizations use some form of spreadsheets and databases to organize and categorize their performance data. Off-the-shelf software packages can perform straightforward aggregation/disaggregation, statistical analysis, trend analysis, charting, quality control, process cost analysis, and forecasting. These analytic approaches become stronger over time as performance measurement processes mature.

The heart of any good performance measurement system is data. Accurate, precise data collected through an elaborately designed statistical sampling plan is useless if it does not clearly address a question that someone cares about, wants answered, or is meaningful to bottom line results. It is crucial to be able to state precisely what it is you want to know about the program or activity you are going to measure. Learning to ask the right questions is a key skill in effective data collection. To generate useful information, planning for good data collection should include consideration of the following:

- What question do we need to answer?
- How will we recognize and communicate the answers to the question?
- What data-analysis tools (Pareto diagram, histogram, bar graph, control charts, etc.) will we use to graphically depict our analysis?
- How will we communicate the results to our stakeholders?
- What type of data do the data analysis tools require?
- Where in the process can we get these data?
- Who in the process can give us these data?
- How can we collect these data from people with minimum effort and minimal chance of error?
- What additional information do we need to capture for future analysis, reference, and tracking?

This process paradoxically works backwards in order to develop a model for generating useful information. In other words, start your process by clearly defining the question or questions you want answered. It is recommended that rather than diving into the sea of data collection, consider how you might communicate the answers to these questions and what types of analysis you will need to perform to get your results in a coherent manner. This process will help you define your data needs and clarify the most important characteristics you are looking for in your data. Your analysis of performance measurement and process conformance will depend primarily on meaningful and valid data.

It is important to distinguish the meaning between information and data (as they often get confused). Information is interpreted data, whereas data are a set of facts presented in quantitative or descriptive form.

Data must be specific enough to provide you with relevant information. There are two basic kinds of data:

- Measured or variables data: Data that may take on any value within some range. This type of data provides a more detailed history of your process. This process involves collecting numeric values that quantify a measurement and therefore requires small samples. If the data set is potentially large, consider recording a representative sample for this type of data, including the following examples:

    - Cost of item
    - Number of days it takes to solve a problem
    - Number of hours to process a request
    - Number of errors in a process

- Counted or attribute data: Data that may take on only discrete values. Attribute data need not be numeric. These kinds of data are counted, not measured, and generally require large sample sizes to be useful. Counting methods include defective/nondefective; yes/no; accept/reject, and examples of this type of data include:

    - Was the process completed with no errors?
    - Did the meeting start on time?
    - Was the phone answered by the second ring?
    - Was the report completed on schedule?

A designated staff person needs to be appointed to supervise the data collection process to determine if the data are being collected properly and if all the pertinent staff are carrying through with their performance measurement assignments. Some form of preliminary analysis is necessary during the data collection process. For instance, you should ask yourself the following questions: "Is our measurement system functioning as designed or intended?" Furthermore, it is important to check the frequency of data collection early in the process: "Does the data collection happen often enough?" and "Does it happen too often?" An agency may also want to pilot test its data collection process to identify any problems with the sampling plan, ambiguity or bias in the questionnaires, and unclear definitions. Based on the answers to these various questions, make adjustments as necessary in your data collection process and provide feedback to the data collectors.

Data Collection Forms

Data collection forms are specially designed so that the results can be readily interpreted from the form itself. The data collection for is ideal for capturing special (worker controlled) cause of process variation since the worker can interpret the results and take corrective actions immediately. This type of sheet can be used in agency customer service locations, e.g., library branches, customer service counters, etc.

Computer Help Desk Problems	Occurrences
Excel Problems	𝍸 𝍸 𝍸 𝍸
Word Problems	𝍸
Network Logon Problems	𝍸 𝍸 𝍸 𝍸
Mainframe Connectivity Problems	𝍸

Figure 11: Simple Check Sheet

Data Collection System

A data collection system ensures that all measures are collected and stored. The type of data and frequency of measurement will help you determine how to collect it. Some data fit well into check sheets or data sheets that collect information in simple tabular or columnar format. On the other hand, other measurements lend themselves to easy entry into a computer database such as Microsoft Access or SQL Server. Whatever system is chosen, it should provide easy access and be understandable by those who are tasked with reviewing the data. Those tasked with performing the data collection should understand the data collection system, have the necessary forms at hand, be trained in the data collection, and have access to instructions pertaining to the data collection system.

Note: Please remember that data sources, databases and recordkeeping must be maintained in a manner that protects the privacy of client information, particularly in light of requirements such as the Health Insurance Portability and Accountability Act of 1996 (HIPAA). If you should have any questions related to HIPAA, please contact Sharon Arndt, HIPAA Compliance Manager at 703-324-3360 or HIPAAmanager@fairfaxcounty.gov.

The collected data must be accurate. Inaccurate data may give the wrong answer to your questions, resulting in a loss of credibility to either you or your agency. One of the most troublesome sources of error is called bias. It is important to understand bias and to allow for this during the development and implementation of any data collection system. Design of data collection forms and processes can reduce bias.

Some types of biases that may occur:

- Collection time period: The time period or frequency selected for data collection distorts the data, typically by missing significant events or cyclic occurrences.
- Estimation: Statistical biases
- Exclusion: Some part of the process or the data has been left out of the data collection process

- Interaction: The data collection itself interferes with the process it is measuring
- Nonresponse: Some of the data are missing or not obtained
- Operational: The data collection procedures were not followed or were specified incorrectly or ambiguously
- Perception: The data collector biases (distorts) the data

ANALYZING THE DATA

The success of performance measurement depends on the complete and accurate gathering and analysis of performance data. Data are the lifeblood of performance measurement. Data are collected and analyzed for each performance indicator to determine if – and how well – goals and objectives are being met. It is fairly easy for the data collection and analysis phase of performance measurement to get out of hand. The weakness of some data analysis is that the data can become divorced from the context in which the data were compiled. Advanced technology often facilitates this tendency. It is tempting to take advantage of the myriad data resources available via the Internet and Intranet, which while valuable, should not be undertaken solely for the sake of research. Avoid the temptation to collect the data that's simple and easy to collect, or to collect too much extraneous data based on the fallacy that having large amounts of data "looks good" to senior management. Rather, data are collected and analyzed to get *answers*, or to provide County decision makers with the descriptors of how an organization is achieving its predetermined goals and objectives. Moreover, performance measurement data can then be used to drive improvements in an organization, and help to successfully translate strategy into action. However, it is worthwhile remembering that performance measurement data should be an aid for judgment, not a substitute for it. In fact, real power and usefulness of performance measurement data is not that it automatically provides the "right" answers for your agency, but that it helps establish a framework to keep asking the right questions to facilitate improvement in service delivery. It is easy to get caught up in creating performance measures and lose sight of your purpose. While measures are important, remembering why you want to measure performance will help keep your focus on outcomes and results.

Providing quality service and programs to our customers is the key element in our "Managing for Results" process; therefore, keep your focus on meaningful quality results or outcomes rather than on inputs. The following principles are key to gathering performance data:

Keep it focused. Ensure that the right data, and only the right data, are collected; avoid repetitious or tangential compilations; make sure that the questions originally posed by the performance measures are answered. It is neither possible nor desirable to measure everything. Most importantly, make sure that your performance measures are linked to your agency's strategic plan.

Four Methods of Analyzing Data

- Over time and trend analysis
- Against targets and standards
- Among subunits if possible (internal benchmarking)
- Against external benchmarks
    - Statistical-peg performance against that of other agencies
    - Corporate-best practices, process improvement

Analyzing The Data

Agency Case Study: Fairfax County Public Libraries (FCPL)

"FCPL finds the cost center breakdown extremely useful in developing our measures. By focusing on what each cost center does within the organization we are able to clear away much of the minutia and get at the true function of each cost center."

FCPL coordinates its performance measurement efforts through one office, and under the direction of a single individual. This individual is responsible for gathering and reporting the Library's performance measures. Based on recommendations from this individual, changes may be made to goals, objectives, and indicators. This individual knows where the data comes from, and who is responsible for generating it. This individual also maintains and updates the methodology whereby each indicator is defined.

Analyzing The Data

Agency Case Study: Department of Vehicle Services (DVS)

"DVS previously displayed the exact same set of measures (vehicles/equivalents maintained, vehicle availability rate, etc.) for each of our maintenance facilities (each was a separate cost center). With the budget redesign, we now combine all of the facilities (as well as the bulk of the administrative cost center) into a Maintenance and Operations Management program, so that the data is displayed agencywide. While we still maintain the data at the cost center level internally, it keeps the budget presentation from looking so repetitive."

Keep it flexible. In best-of-class organizations, data are collected from a variety of sources and through a variety of media. Any one system isn't necessarily right or wrong. Although using automation is preferable, sometimes manual systems are necessary and even cost-effective.

Keep it meaningful. It has been noted that a few basic, well-aligned measures are better than a number of complex ones.

Keep it consistent. Data collection should be based upon a set of agreed-upon definitions. These definitions need to be universally understood by employees, managers and even customers. Data collected within a framework of understanding can be easily compared and analyzed, allowing subsequent evaluations to be "apples to apples." An example would be a program where the cycle time target is set at 10 days. One group may understand it to mean 10 consecutive days, while another considers it to be 10 working days – a meaningful difference.

Different Levels of Information for Different Needs

Each business unit and hierarchical level of an organization will have different needs for the data gathered. These differences will be reflected in the collection process. The following reflects the different foci.

Strategic (executive management): Senior managers need to determine whether their organizations are meeting or exceeding the expectations defined in their strategic plans. Generally, they target a few vital measures as critical to their responsibilities. Rather than immersing themselves in day-to-day program details, senior managers look for trends. Performance measurement connects performance measurement data to the countywide core purpose and vision elements. In addition, this connection results in a better alignment of strategic plans with budget resources and results.

These different foci result in different uses of the data, different time frames for using it, and differing opportunities for improvement. The more frequently performance measures are collected and analyzed, the more opportunities exist to identify the need for and the implementation of improvements. This important distinction is shown on the table on page 43.

Tactical (business unit or program managers): This level typically includes data that can be used to measure customer satisfaction (or dissatisfaction). These data are usually collected through a customer survey whether it is point-of-service, telephone, written, etc. Another kind of data that business or program managers are interested in is program cost. These data come from accounting systems such as Fairfax County's FAMIS. Managers use these data to react to conditions, and also to implement proactive measures to reduce unnecessary costs. One of the core assumptions of performance measurement is the proactive mind-set to "fix it before it breaks" philosophy rather than the mind-set that results on the premise "If it ain't broke, don't fix it." The "fix it before it breaks" model is the sign of high performance organizations, closely aligned with the "do it right the first time perspective" that revolutionized modern industry during the past 30 years. Best-in-class organizations also measure the health of their business units by surveying for employee morale, tracking safety, and/or identifying skill deficiencies in order to correct poor performance.

Operational (line supervisors and employees): The data focus for line supervisors and employees relates to daily operations and customer service. Thus, line supervisors and employees collect and act upon operational performance data. These data are often best gathered as part of employees' interaction with the customer, e.g., number served, time to process requests, etc.

DIFFERENT ORGANIZATIONAL LEVELS OF PERFORMANCE MEASUREMENT DATA

Type	Used By/For	Time Frame	Opportunity to Improve
Strategic – organizational purpose	County management and agency directors; used to look at outcomes	12-18 months	No more than once a year
Tactical – major business functions	Program managers; tend to focus on efficiency, service quality	3-6 months	2-4 times a year
Operational – products and services	Frontline supervisors and employees; focus on transactions, outputs	1-3 months at least Can be daily or weekly	12 or more times a year

In this step of analyzing the data, the raw data are formally converted into performance measures, displayed in an understandable form, and disseminated in the form of a report. The Department of Management and Budget (DMB) engages in this process by reporting on performance measurement data through its PM Database Reports as well as publishing the PM data in the annual budget volumes (Advertised and Adopted budgets). One note of caution: before drawing conclusions from the data, you should verify that the data collection process has met the following requirements:

- Do the data collected still appear to answer the information questions you originally asked?
- Is there any evidence of bias in the collecting process?
- Is the number of observations collected the number specified? If not, why?
- Do you have enough valid data to draw meaningful conclusions?

After your raw data has been collected and verified, it is appropriate to perform data analysis. In some instances, your recorded data are not necessarily the actual performance measurement; rather performance measures are usually formulated based on one or more raw data inputs. Therefore, you may have to convert and assemble your raw data into a performance measure.

The next step in analyzing data is deciding how you are going to present or display the data. You usually group the data in a form that makes it easier to draw conclusions. This grouping or summarizing may take several forms: tabulation, graphs, or statistical comparisons.

Transforming Data Into Information

Data analysis in performance measurement is the process of converting raw data into performance information and knowledge. The data that have been collected are processed and synthesized so that informed assumptions and generalizations can be made about what happened. This is then compared to what was expected to happen, if there is a variance, determine why, and what corrective action might be required. In order for your agency to choose the most effective objectives and strategies and make significant improvements in the outcome measurement, it is critical to first analyze the outcome measure to understand what is driving it. For example, you need to understand the trend of the baseline data as well as the major factors influencing the outcome measure. When analyzing your outcome measures, it will be useful to chart the outcome measure showing both baseline and comparative data if available. To ensure that everyone can use and understand data and its analysis, staff must understand at least rudimentary methods such as:

- Trend analysis – comparing data from one period to another and noting the percentage change. As part of your trend analysis, discuss what the baseline data reveals, including the movements in the baseline data.

- Plotting data against upper and lower control limits to determine how many events fall outside of the norm

Transforming Data Into Information

Agency Case Study: Fairfax County Public Libraries (FCPL)

Trend Analysis – "FCPL looks at every one of our indicators from the standpoint of trend analysis. We identify growth or decline in the data, compare it to external factors that occurred during the year, and use this knowledge to better estimate where we expect the numbers to go in the future."

Plotting Against Control Limits – "FCPL tracks many of our indicators monthly. In this way, we can easily spot and identify an event that has impacted the data for that month, and may have an impact on the annual numbers. For example, in February 2003, excessive snowfall resulted in the loss of 387 hours of library service. Obviously this had a tremendous impact on February data and comparisons to February 2002, but also was one four key factors identified as having a significant impact on the Library's ability to meet many of its performance measures that year."

Aggregating and Disaggregating Data – "All of the FCPL indicators are for the Library system as a whole. However, we do look carefully at individual branch data and its impact on the system data. Not only are many of our indicators tracked monthly, but by individual branch as well. FCPL also looks at data as it pertains to the two **types** of facilities it operates (regional and community libraries). In this way, it is able to spot changes to or shifts in the use of its types of libraries. For example, the number of information question addressed is a system-wide output. However, before we use the system figure, we examine the figures for individual branches identifying increases and decreases compared to the previous year. We also look at the figures for all regional branches compared to all community branches. In this manner we have been able to recognize a shift that is slowly taking place in the volume of reference transactions from regional to community branches. This has helped verify an assumption. A decade ago, regional branches provided a higher level of reference service than community branches. With the advent of the Internet and online databases, we assumed that we would see the difference in volume of reference activity in favor of the regional branches begin to balance out. This is indeed happening."

REPORTING THE DATA

After summarizing your data, develop and produce a report. A number of tools are available to assist you in this endeavor. Below are some of the more widely used tools and concepts to help you in your reporting:

- Use spreadsheets (Excel) and databases (Access, SQL Server, Oracle) as appropriate to organize and categorize the data and to graphically show the trends. This will greatly improve the ease and quality of interpretation. Some of the more common graphic presentations are histograms, bar charts, pie charts, scatter diagrams, and control charts.

- Make use of summaries. The common purpose is to present a single important total rather than many subtotals. Through this summary, the reader is able to understand enough to judge whether to go into detail or to skip on to the next summary.

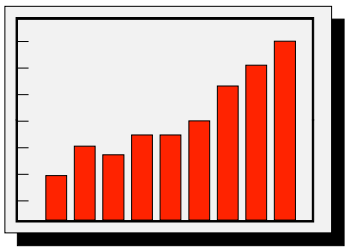
- Be aware of pitfalls in your data presentation. Averaging your data on a monthly basis might shorten the amount of information presented, but could hide variations within the monthly period. Choices of scales on graphs and plots could skew interpretation.

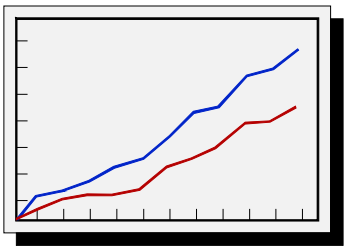
- Standardize the calendar so that the month begins and ends uniformly for all reports. If you have an irregular reporting period, it will be difficult to determine the cause/effect relationship of events that may occur at the end of a reporting period.

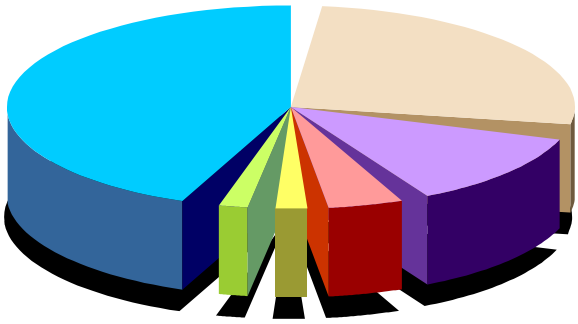
- Adopt a standard format. Use the same size of sheets or charts. As far as possible, use the same scales and headings.

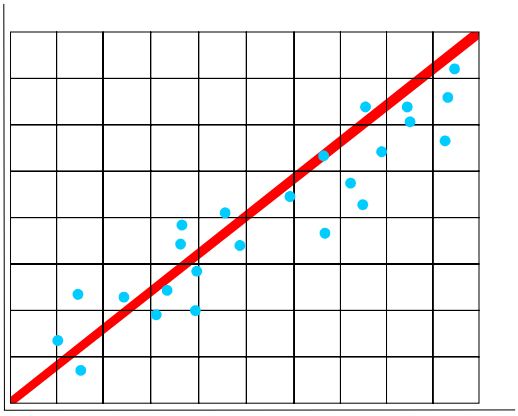
Reports may take many forms. A report may consist of sets of tables or charts that track performance measures, and is supplemented with basic conclusions.

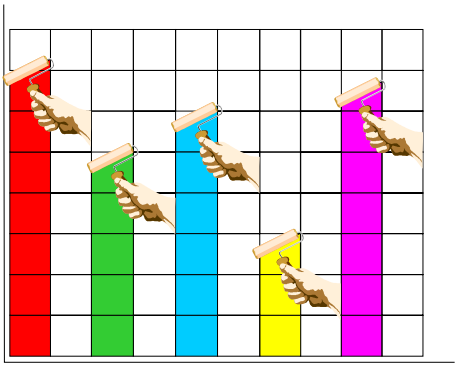
In addition, with performance measures, remember a picture is worth a thousand words. Data can be displayed in a wide variety of ways including graphic presentations such as histograms (bar charts), pie charts, line charts, and scatter diagrams (as shown below).











COMPARING ACTUAL PERFORMANCE TO PERFORMANCE GOALS

In this step, compare performance, as presented in your report, to predetermined goals and determine if there is any variation between the two.

Some agencies may decide to compare the actual performance of staff with their performance goals or performance elements (Performance Evaluation Form). Depending on the results or the actual variance, you have several options available in handling the issue and taking action:

- If the difference is miniscule, take no action.
- If the difference is substantial, take corrective actions to fix your performance or process if the variance is negative. Of course, the actual performance could exceed your target or goal.
- Change the goal to make it more realistic or relevant.

If there is no significant variance between a goal and your performance measures, then proceed with the data collection cycle/process. If there is a variance between the goal and the performance measure, look at the magnitude of the variance. If it is significant, report the variance to the decision-makers in your agency for possible discussion, analysis, and resolution. If a decision to implement a corrective action is warranted, develop and implement corrective actions as necessary with all the relevant stakeholders.

While establishing good performance measures is critical for your agency, making those measures work is even more important. A successful system has buy-in from managers and staff alike who each assume responsibility and accountability for some part of the process. In best-in-class organizations, individuals are designated as responsible for each performance target within a business/organizational unit. High-performance organizations clearly identify what it takes to determine success, and make sure that all staff understand what they are responsible for in achieving the organization's goals and objectives. A single matrix identifies the unit's objectives and indicators, as well as those who are responsible for meeting the performance targets. The following illustrates this concept.

Objective: *To increase the immunization rate, while increasing customer satisfaction and decreasing unit cost.*		
Performance Measure	**Target**	**Responsible Person**
1a. Improve customer satisfaction rating	90%	Harvey Pleasants
1b. Reduce unit cost	(5%)	Les Cost
1c. Increase immunization rate	92%	Stella Shotz

Sometimes it is preferable to designate a team where multiple employees are responsible for achieving various targets. However, even in those circumstances, it is crucial that a particular individual be ultimately responsible for the team's performance as the respective measurement owner. Otherwise no one is accountable and the results will correspondingly reflect that.

It is also worthwhile to remember that many outputs are contingent on things beyond the control of the individual, such as the number of items ordered or processed. Furthermore, many outputs are affected by funding realities and system priorities which are outside the scope of control for an individual. In the face of this reality, some departments stress the performance of their agency systems rather than focusing on any one group and/or individuals.

USING PERFORMANCE INFORMATION

High-performing organizations do not measure things just for the sake of measurement. Rather, they report, evaluate, and use performance information as part of a continuous improvement process. They recognize that the failure to plan is essentially planning to fail.

It is important that performance information be disseminated quickly. Putting useful information into the hands of decision makers promptly is critical. Many communication devices can be used to do this including reports, meetings, e-mail, and videoconferencing. Local area networks used by agencies are useful for sharing agency information, and the County Intranet represents an opportunity for sharing countywide data.

While providing information to managers is important to enable them to make decisions, it is equally critical that employees are also "in the loop" so that they know their roles, can maintain motivation, and contribute to performance improvement. Organizations noted for effective performance measurement systems employ various mechanisms to ensure regular feedback. These techniques include weekly or monthly newsletters, charts or scorecards posted in work areas, focus groups to get feedback, and "employee recognition" days to acknowledge high performance.

Information generation begins and ends with questions. To generate information, we need to:

- Formulate precisely the question we are trying to answer.
- Collect the data and facts relating to that question.
- Analyze the data to determine the factual answer to the question.
- Present the data in a way that clearly communicates the answer to the question.

Using Performance Measurement Information

Agency Case Study: Health Department

The Health Department uses performance measurement outcome data to pinpoint where they are doing well and where specifically they need to direct their resources to improve operations.

Like other County agencies, the Health Department has been faced with growing demand and limited resources to meet that demand over the past few years. For example, the demand for clinic services had grown from 71,000 visits in 1998 to 93,000 visits in 2002. Clinic services include immunizations, maternity care, TB treatment, and pregnancy testing. The increasing number of people over this period of time created an unsafe practice environment for staff in addition to long waits for clients to get services. Based on performance measurement data, the Health Department staff was compelled to reallocate resources to help meet the demand.

"One of our outcome measures is the low birth weight rate for maternity clients. The rate for the Health Department was below the rate for the County as a whole and consistently better than the Healthy People 2010 national goal. This was an area we could look to for additional staff. We changed how Maternity services were provided in order to maximize our staff resources. We eliminated home visits to obtain medical information and provide home environment assessments as well as redefined the criteria used to determine who would need case management. This allowed us to move two staff per office into the clinic setting at each site. We will continue to monitor our maternity outcomes to see if the low Birth Weight Rate is affected by these changes and if so, revisit how those services are provided."

Performance evaluations should be conducted periodically to best meet an organization's individual management information needs. Evaluations are typically scheduled on a monthly or quarterly basis. However, depending on the types of activities, the frequency of evaluation could range from daily or weekly to semiannually. Keep in mind that the frequency with which the data are analyzed, presented, and evaluated directly affects the number of opportunities an organization has to improve its performance. Typically the type of information provided in such evaluations includes:

- Annual objective target
- Year-to-date performance
- Gap analysis (if any)
- Root cause analysis (why gap exists)
- Solutions to bring performance back on track

Uses of Performance Information

Performance information can be used for various purposes including:

Make resource allocation decisions. There are important linkages among resource allocation, strategic planning, and performance measurement. A high-performing organization's strategic planning process is directly related to, and may drive the process for, allocating its resources to carry out goals and objectives. While performance measurement information does not solely drive resource allocation decisions, it can be used in conjunction with strategic priorities to identify and channel resources such as staff, training and technology into areas singled out during performance evaluation.

Conduct employee evaluations. Most high-performing organizations have developed some means of linking performance with pay. Fairfax County implemented a Pay for Performance system effective July 1, 2000. It is important to note that for these types of systems to work, it is imperative that clear, consistent performance elements be developed, that these standards be communicated to employees, and that employees receive regular feedback on their performance.

Improve processes/drive reengineering. During the course of performance measurement, if gaps are identified, organizations can use this data to implement improvements. Some of the processes typically reengineered to achieve performance improvement include cycle time (how long it takes to produce a good or service), organizational structure (how many layers to go through), workflow, document flow, managed competition (outsourcing or privatization), information technology, and customer service.

Using Performance Measurement Information to Improve Processes

Agency Case Study: Department of Family Services (DFS)

The DFS Family and Child Program provides intensive case management services to families with children. Its goal is to enable children to live safely in families; to ensure that families remain safely together whenever possible; to protect children from harm and prevent abuse and neglect; and to support and enhance parents' capacity to safely care for and nurture their children.

The Family and Child performance objective was to provide services to families who were at risk of child abuse and neglect to ensure there was no subsequent child abuse investigation. After collecting data for three years, the program manager found that they were meeting and exceeding their target. They were achieving 99+% of families with no subsequent CPS investigation. While this high success rate in achieving the program's objective was an outstanding accomplishment and a good reflection of the work being done in the program, it was so consistently high that it was not particularly meaningful in helping to manage the program. As a result, DFS staff decided to change their performance measure to reflect more directly the effectiveness of their services. A tool was developed to measure the family's progress in certain life functioning areas as parenting and employment. The new objective was developed to measure the impact of the intensive case management services on the families served. Their new objective is "to achieve an 85 percent rate of improvement in family functioning and well-being for families served by the Family and Child program." This example illustrates that performance measures should not be used merely to make a program "look good" but rather to help the managers manage their program areas by identifying areas where there could be improvement and demonstrating to decision makers where the strategic goals of the department/ division are being met.

Adjust goals and/or measures. In most cases, if performance objectives are not met, corrective action is taken. Conversely, if objectives are exceeded, the bar is reset to establish stretch goals. Sometimes over the life of a performance measure, an organization notes the need to change the data definition of a measure. As an example, a shipping company used percentage data to measure performance. However, as its volume grew, it became apparent that actual data should be used instead. Although it had set its target at 99.5 percent successful on-time delivery, 0.5 percent failures translated into 1.5 million late deliveries per year, which was unacceptable, so the organization changed its measure to actual occurrences of failure. While Fairfax County generally does not deal in such large volume, this possibility should be considered.

Using Performance Measurement Information: Adjust Goals and/or Measures

Agency Case Study: Department of Vehicle Services (DVS)

DVS is a good example of where an agency adjusted one of its goals (fuel prices). It started off showing a percentage savings in fuel prices (DVS compared to local vendors, adjusted for taxes). When fuel prices were $0.60 per gallon, a savings of $0.10 a gallon equated to a 16.6% savings. When prices shot up to $1.00 a gallon, that same savings per gallon only equated to a 10% savings. Eventually, DVS adjusted its performance measure to show cost savings/gallon vs. percent savings which provided a fuller and more balanced perspective of DVS savings in fuel.

Transforming Data Into Information

Agency Case Study: Fairfax County Public Libraries (FCPL)

Political and economic realities change and, correspondingly, so should goals and measures. In FCPL, this is done through an annual review process. At the completion of each fiscal year, a management team reviews the Library's goals, objectives, and indicators for continued viability in relation to changing fiscal realities, business processes and new information technology. So far, the team has left the Library's goals unchanged from when they were first formulated several years ago. However, individual cost center goals have been modified over the years to account for the way business has changed. Nevertheless, indicators have remained fairly constant. The Library is fortunate in that many of its indicators are standard forms of measure for libraries across the industry and therefore are not subject to whimsical change. Yet, FCPL has added and removed indicators as a result of changing technology. For instance, where an upgraded computer system was no longer able to generate data for a particular indicator, a replacement indicator of a similar nature was substituted for it.

"FCPL prepares an annual report to document success in meeting performance measures. The basis for this report is the PM database which verifies which indictors were met or not met, and the 'Targets Met Report' prepared by DMB in the fall of each new fiscal year. Before these items are available, FCPL knows with some certainty how well it performed during the year. The report is prepared by the Library's Office of Planning and Evaluation, and is presented to the Library's Management Team consisting of the Library Director, Deputy Director, Associate Director for Technical Operations, and the Associate Director for Administration. The report not only details which measures were met, substantially met, and unmet, but also provides justification for why the Library performed (exceptional or not so well) as it did. The report for FY 2003 detailed four key factors that greatly influenced the Library's performance during the fiscal year, each of which was outside the Library's control. The report goes further and speculates on what the Library's performance might/would have been had one, either, or all of these factors not occurred. Finally, the report compares the Library's historical performance rating (as defined by the 'Targets Met Report') with that of other General Fund agencies, Non-General Fund agencies, and the County as a whole."

This report goes a long way to preparing management staff to meet with the County Executive during his annual meetings with agency directors to discuss agency performance. Not only does FCPL staff know what happened, but they know why it happened, and also what likely would have happened had something changed for the better. The report also provides an opportunity to outline any changes in business practices that it believes may help improve the Library's performance and, more importantly, how the Library can improve its service to the citizens of Fairfax County and Fairfax City.

Document accomplishments. Agencies have a number of opportunities to disseminate information about their performance and should use these opportunities to inform their customers and other stakeholders (i.e., employees) about accomplishments. Results can be communicated through the annual budget narrative, through annual reports, in meetings with boards and commissions, in other public forums such as "town meetings," and in employee meetings. Governmental agencies have learned over the past decade that citizens not only want to know what they're getting for their tax dollars, but also want to know how well their schools, police, and other public services are performing.

DETERMINING IF CORRECTIVE ACTION IS NECESSARY

Depending on the magnitude of the variation between measures and goals, some form of corrective action may be required. This step is a decision step. At this point, you can either change the process or change the goal. If the variance is large, you may have a problem with your process and will need to make corrections to bring your agency performance back in line with specified goal. To address these potential problems, you can form an internal quality improvement team or conduct a root cause analysis to evaluate to isolate the primary root cause of the problem as well as the secondary causes. Of course, you should consider that your agency goal or target may have been unrealistic.

If the variance is small, your process is probably in good shape. Nevertheless, you should consider reevaluating your goals to make them more challenging and to better performance. In addition, if you do make changes to the process, you will need to reevaluate any associated goals, objectives and measures to make sure they are still relevant and viable. Don't lose sight of your objective at this point. The key objectives for taking any corrective action are:

- To remove *defects*;
- To remove the *cause* of defects;
- To attain a *new* state of process performance (one that will prevent defects from occurring in the first place or from re-occurring); and
- To *maintain* or *enhance* the efficiency and effectiveness of your agency process. This is an essential condition for continuing process improvement.

MAKING CHANGES TO BRING PROCESS BACK IN LINE WITH YOUR PERFORMANCE GOAL

This step only occurs if corrective action is necessary. The actual determination of the corrective action is part of your agency's built-in quality improvement process, not the performance measurement process.

The prime result of any corrective actions should be removal of all identified causes of defects or deficiencies, resulting in an improved or a new process.

If you cannot measure an activity, you cannot control it. If you cannot control it, you cannot manage it. Without dependable measurements, intelligent and rational decisions cannot be made by program managers and senior County management. Consequently, performance measures can be used for four primary purposes in improving process-related issues:

- **Process Control:** Measurements help to reduce variation.

- **Self-Assessment:** Measurements can be used to assess how well a process is doing, including improvements that have been made. The assessment can be measured using empirical data rather than subjective perceptions.

- **Continuous Improvement:** Measurements can be used to identify defect sources, process trends, and to determine process efficiency and effectiveness, as well as opportunities for improvement.

- **Management Assessment:** Without measures, there is no way for program managers to be certain they are meeting value-added objectives or that their programs are effective, efficient, and are providing the community's expected level of service quality.

DETERMINING IF NEW GOALS OR MEASURES ARE NEEDED

Even in successful systems, changes may need to be revised in order to establish goals that challenge an organization's resources, but do not overtax or overwhelm them. Goals need periodic evaluation to keep up with the latest organizational processes and changes.

The decision to create new performance measures or goals will depend on three major factors:

- The degree of success in achieving previous objectives;

- The extent of any change to the scope of the work processes; and

- The adequacy of current measures to communicate improvement status relative to critical work processes.

Goals need to be challenging, but also realistically achievable. If previously set objectives were attained with great difficulty, or not reached at all, then it may be reasonable to re-adjust expectations. This also applies to the objectives that were too easily met. Of course, extensive scope changes to the work processes will also necessitate establishing new performance measures and goals. Changes in performance measures and goals should be considered annually and integrated into planning and budgeting activities.

STRIVING FOR CONTINUOUS IMPROVEMENT AND INNOVATION

Performance measurement all boils down to this question – how do you know if you are doing a good job? Are you meeting your targets? Are your key performance indicators showing good results? If you can answer yes to all these questions, you may be a high-performance organization, assuming your targets have not been set too low. However, you may not remain a high-performing agency if you do not continually seek ways to improve services. There are eight steps in the continuous improvement process, which are explained in greater detail in the following pages.

1. Identify the opportunity
2. Define the scope
3. Analyze the current process
4. Envision the future process
5. Implement changes
6. Verify changes
7. Strive for Continuous Improvement
8. Embrace Innovation

Step 1: Identify the Opportunity

Opportunities for improvement can be identified in a variety of ways but in this model, performance measurement data generally drives the process. During the process of data collection, analysis, and evaluation, a gap in performance may have been identified. This gap may have been determined by comparing one service area's performance over time against similar organizations internal to the County or against external jurisdictions or organizations.

Benchmarking can help you identify opportunities for improvement. Benchmarking is the process of comparing and measuring an organization against recognized leaders (Best-in-Class) in order to gain information that will enable the organization to improve its performance. Benchmarking can take various forms; however, for simplicity, we concentrate on two main types in Fairfax County. One is comparing performance statistics and the other is known as corporate benchmarking where a particular process is examined in-depth. Benchmarking is used to accomplish the following:

- Disclose gaps between your performance and that of a comparable organization
- Establish a basis for setting your own targets against which to measure performance improvement initiatives
- Create and support momentum for internal cultural change by alerting employees to the need for continuous improvement in key areas such as productivity, customer service, and cycle time
- Uncover emerging practices including new technologies that can help focus future efforts toward improvement

Guidelines for selecting processes to benchmark include those that:

- Represent the highest percentage of your costs
- Significantly impact your quality, cost or cycle times
- Constitute strategic importance to your agency
- Present (or support) your critical success factors
- Provide the greatest room for improvement

Step 2: Define the Scope

For this step, you should determine the objectives, scope, methodology and time frame for improving a process. Key activities include:

- Determining what you intend to achieve
- Identifying the process owner(s)
- Agreeing on how broad/narrow your scope is
- Establishing the methodology you will use to improve the process
- Preparing a milestone or Gantt chart to identify the time frame. A Gantt chart is a graphical representation of the duration of tasks against the progression of time. These charts are helpful for tracking resources, timelines, and budgeting costs among other things. See some examples of different GANTT charts on the following pages.

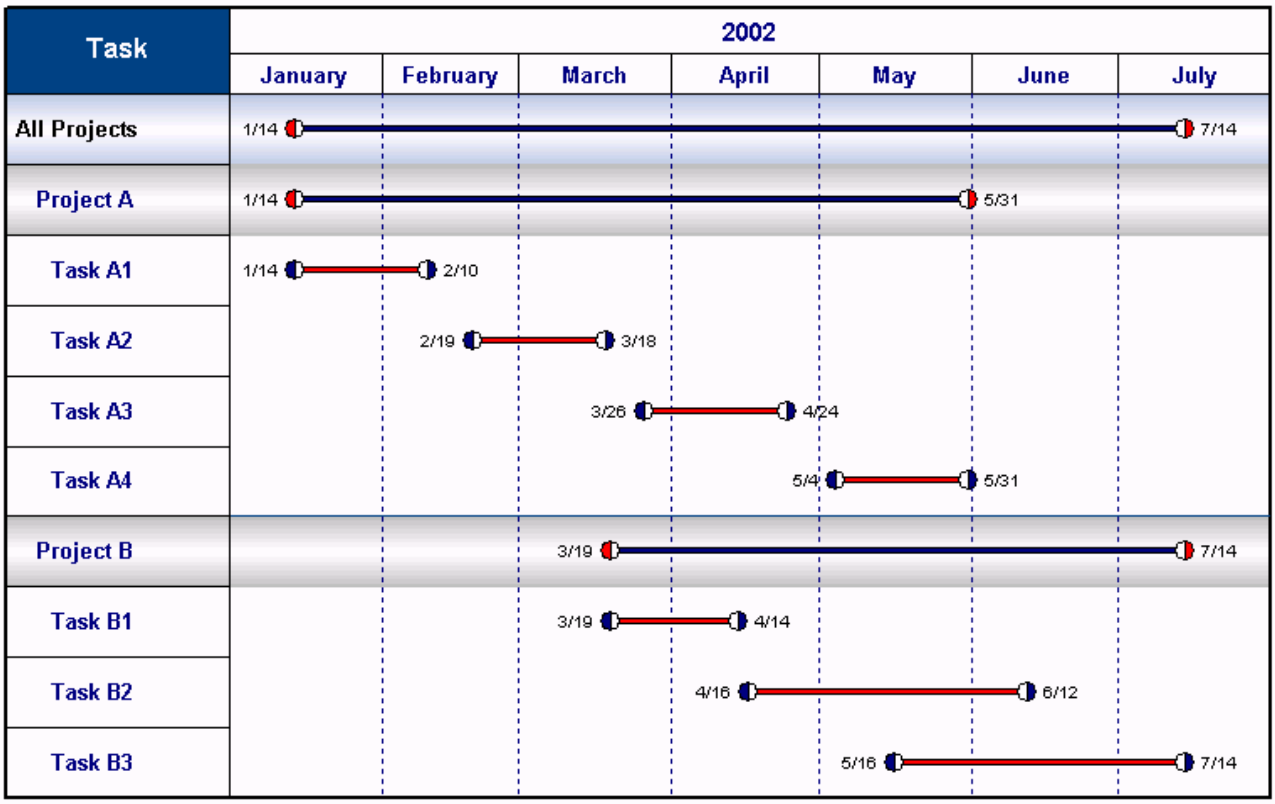


Figure 12: Basic GANTT Chart

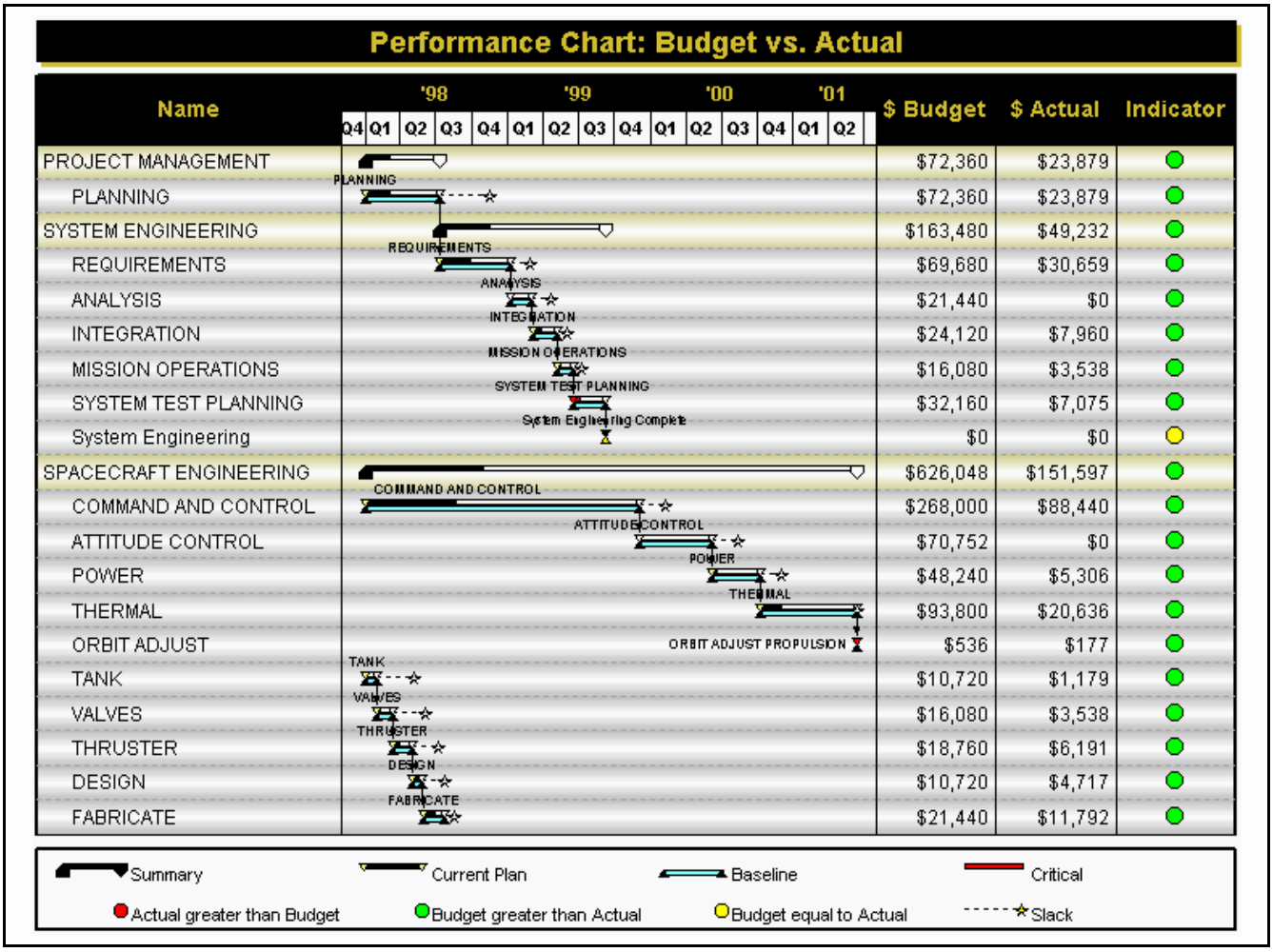


Figure 13: Performance GANTT Chart

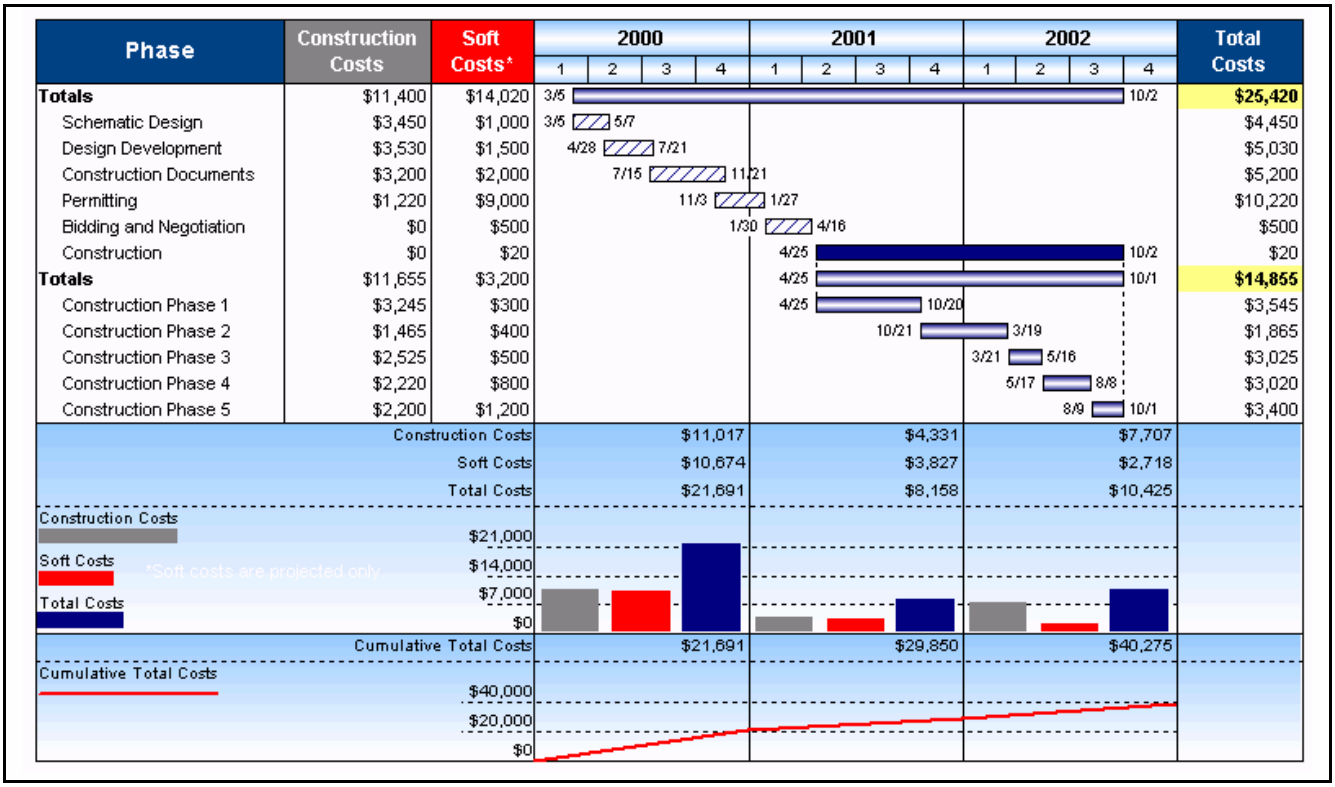


Figure 14: Business Report GANTT Chart

Step 3: Analyze the Current Process

Before you can undertake process improvements, it is first necessary to understand the current one. During this phase, you should gain profound knowledge of the current process if you do not already possess it. Along those lines, it is necessary to identify key measures, and collect and analyze the data for those measures. This step is the one we usually think of when we think of performance measurement. During this analytical phase, use the following three-step process to crystallize your thinking : (1) assess the current situation; (2) list desired outcomes; and (3) list undesired outcomes.

Assess Current Situation

Assess the process and specifically identify the outstanding problems or issues, e.g., forms are too complicated, too many errors, process is too long, too many people involved, etc.

Desired Outcomes

Determine and annotate what will constitute a successful process or project, e.g., increased customer satisfaction, time savings, reduced cost, reduced errors, reduced complexity, faster turnaround time, etc.

Undesired Outcomes

It is also important to identify and avoid undesired outcomes before implementing your process improvement, e.g., a successful process or project will not result in increased complexity, increased cost, layoffs, hiring more personnel, etc.

There are several tools you can use to analyze your processes. For instance, among the best tools to graphically map out processes are business process improvement software and flowcharts.

Flowcharting

A flowchart is a graphic representation of all the major steps of a process (see Appendix A for flowchart symbols). Flowcharts are used to:

- Provide an understanding of the complete process
- Identify the critical stages of a process
- Locate problem areas
- Show relationships between different steps in a process
- Set process boundaries
- Capture cycle time
- Visualize delays, decision locations, redundancy and obscure details

During the flowcharting process, the following are some steps to assist you:

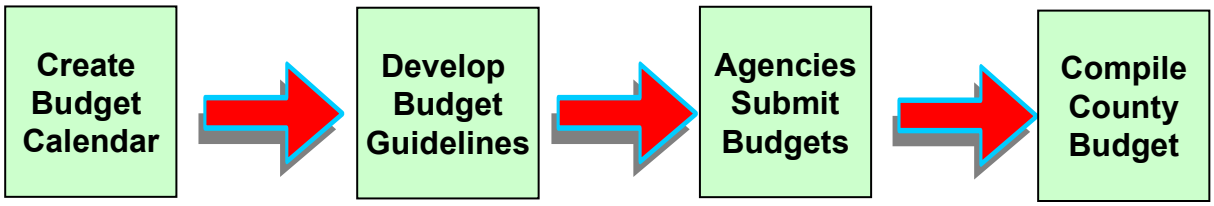
- Visualize the process – talk yourself through the entire process
- List major steps and then arrange them in sequence
- Draw simple, easily understood symbols around or next to steps
- Connect the symbols with flow arrows
- Choose an area(s) to be detailed further

While you are mapping out your flowchart, it is helpful to ask the following questions as you proceed:

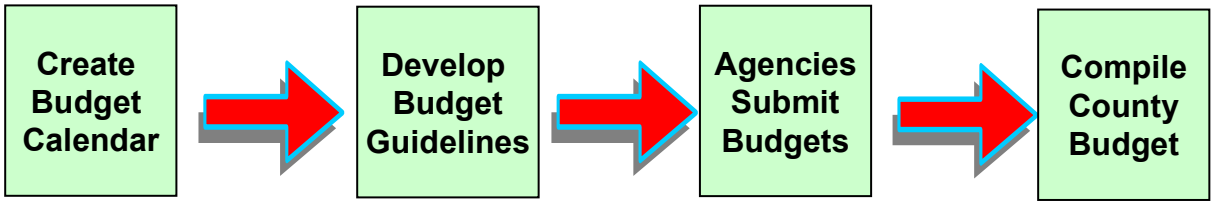
- Who is doing the process?
- What is being done?
- When is it being done?
- Where is it being done?
- How much time does it take?
- What areas hinder our process or add little or no value?
- Examine all areas that differ from your ideal process and question why they exist.

There are many different types of flowcharts. The most common include:

Basic Flowchart: Shows different steps or actions represented by boxes or other symbols. This type can be used to understand the major steps in a complex process. It is often a good idea to create a simple basic flowchart of a complex process to break it down into smaller segments before getting into more detail. It can be as simple as the example below:



Top-Down Flowchart: Provides an overview of a process and its major sub-steps or sub-processes. Once you have developed a basic flowchart (see above) and understand the major steps in a process, a top-down flowchart (see next page) helps break each major step down into more detail. It is often helpful to number the steps in a sequential manner to make it easy to follow the relationship between the "parent" process and the sub-processes. This flowchart can be used to develop a better understanding of the interrelationships between the various steps in the process.



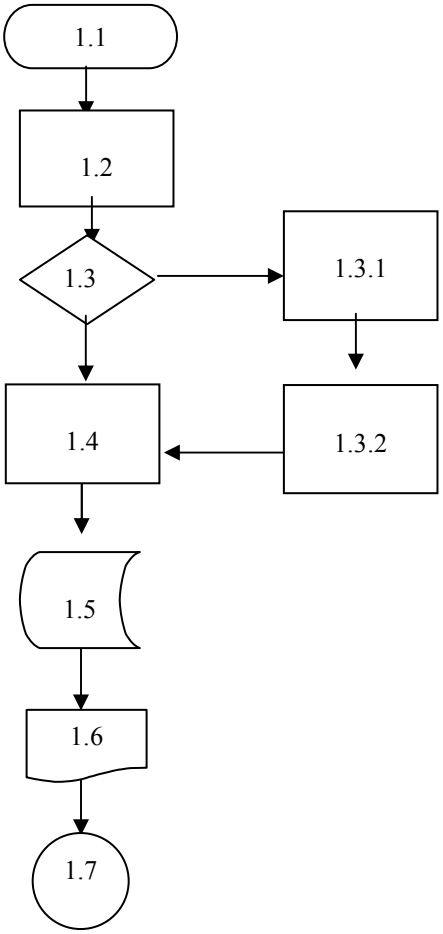
1.1 Identify key dates
1.2 Create master calendar

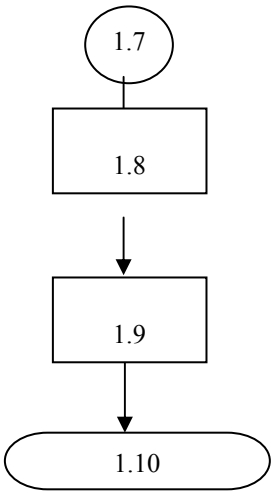
2.1 Forecast revenue
2.2 Make expenditure assumptions

3.1 Identify needs
3.2 Allocate resources
3.3 Prepare justification

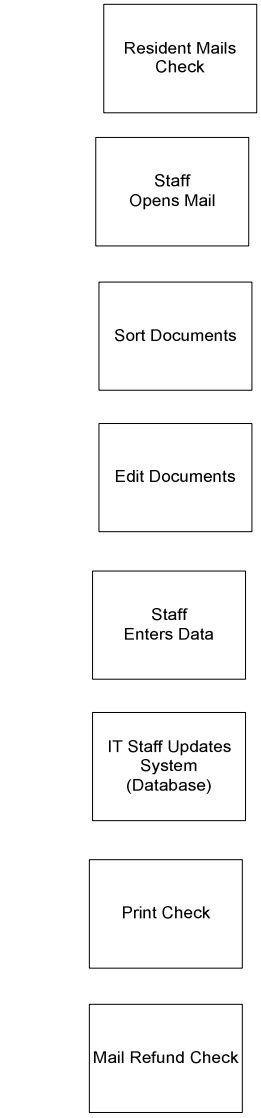
4.1 Review individual agency budgets
4.2 Make recommendations to the County Executive
4.3 Develop annual budget document

Detailed Flowcharts: Used when a detailed understanding of the process is required. Additional symbols are used to understand the particular activity that is occurring in each step. The standard flowchart symbols on page 61 should be used for consistency.

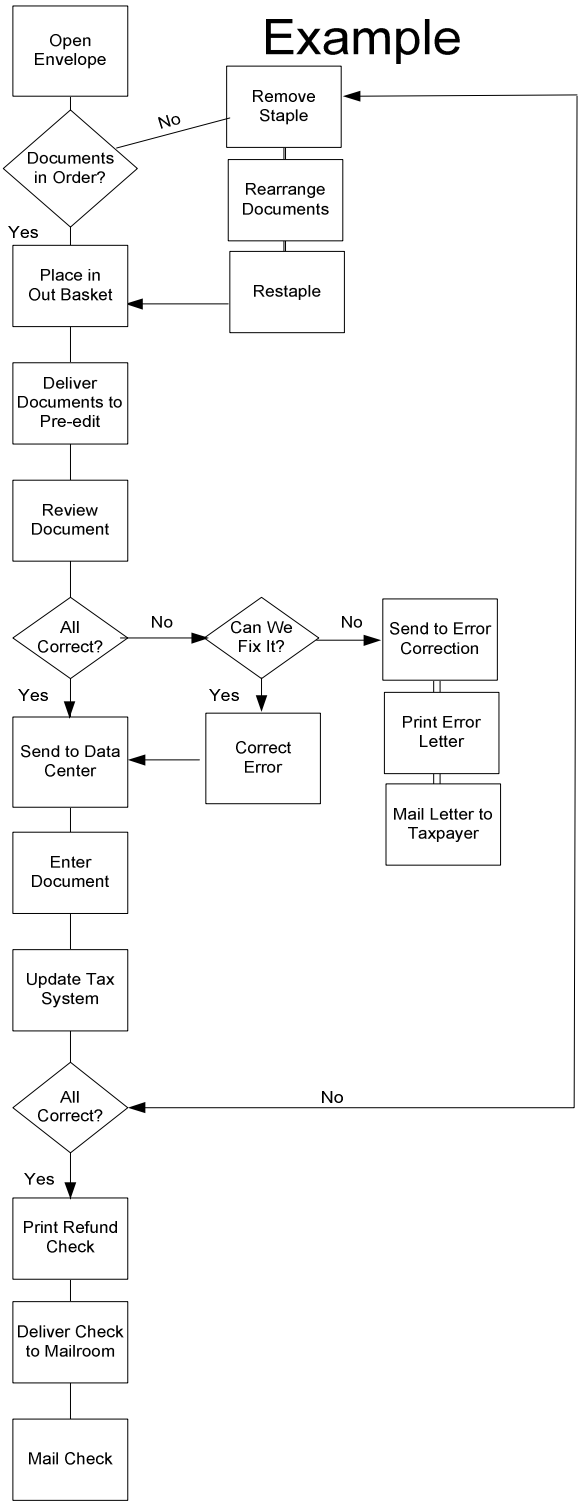




Macro Flowchart: Example

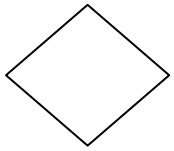


Micro Flowchart: Example

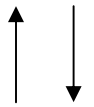


Standard Flow Chart Symbols

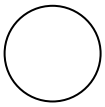
ACTIVITY. The Activity Symbol is a rectangle, which designates an activity. Within the rectangle is a brief description of this activity.



DECISION. The Decision Symbol is a diamond, which designates a decision point from which the process branches into two or more paths. Path taken depends on the answer to the question that appears within the diamond. Each path is labeled to correspond to an answer to the question. Note: When two paths are required, you usually need a Decision Symbol.

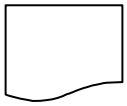


FLOW LINE. The Flow Line represents a process path, which connects process elements: e.g., activities, decisions, and so on. The arrowhead on a flow line indicates direction of a process flow.



CONNECTOR OR LINK. The Connector or Link is a small circle, which is used to indicate a continuation of the flow chart on to another column or page. Insert an alpha (a, b, c) or a numeric (1, 2, 3) in the circle when you come to the end of the page or column. Use that same alpha or numeric in another circle on the next page or column to continue the process flow. The link can also be used to indicate a place where the process moves to another organization or activity.

TERMINAL. The Terminal Symbol is a rounded rectangle, which identifies the beginning or end of a process. Within the symbol is a brief description of the activity which begins or ends the process.



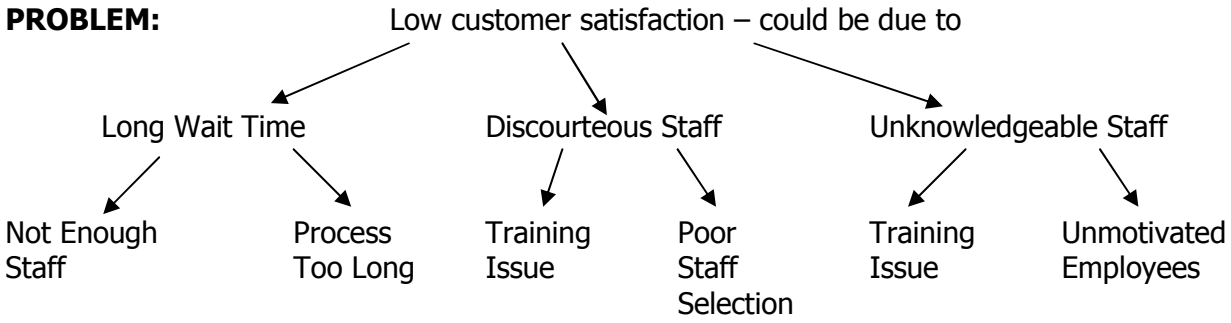
DOCUMENT. The Document Symbol represents the production of a paper document such as a form, report or letter, that is pertinent to the process.

ELECTRONIC INFORMATION. The Electronic Information Symbol indicates the use of automation or an electronic transmission.

Once you have a thorough understanding of the process, you can evaluate performance in context of specific measures, i.e., output, efficiency, service quality, and outcome. Are programs performing as anticipated? If not, you need to understand why targets are not being met. Successful organizations often identify and focus on purpose first, e.g., "Why are we doing this?" before collecting and analyzing data too soon or throwing money and technology at a problem before the purpose of systems or processes have been thought out thoroughly.

Cause and Effect Diagram

Since you now have an "as is" process flowchart, you can use it to explore in detail all of the possible causes related to a problem to discover its root cause(s). A cause-and-effect diagram can be used to capture all of the issues surrounding the process. At this stage, it is useful to brainstorm all the potential causes and then narrow them down as you work toward improvements in the next stage.



Fishbone Chart

A popular variation of the cause and effect is the "fishbone" chart which connects all the primary and secondary causes to the problem (see below):

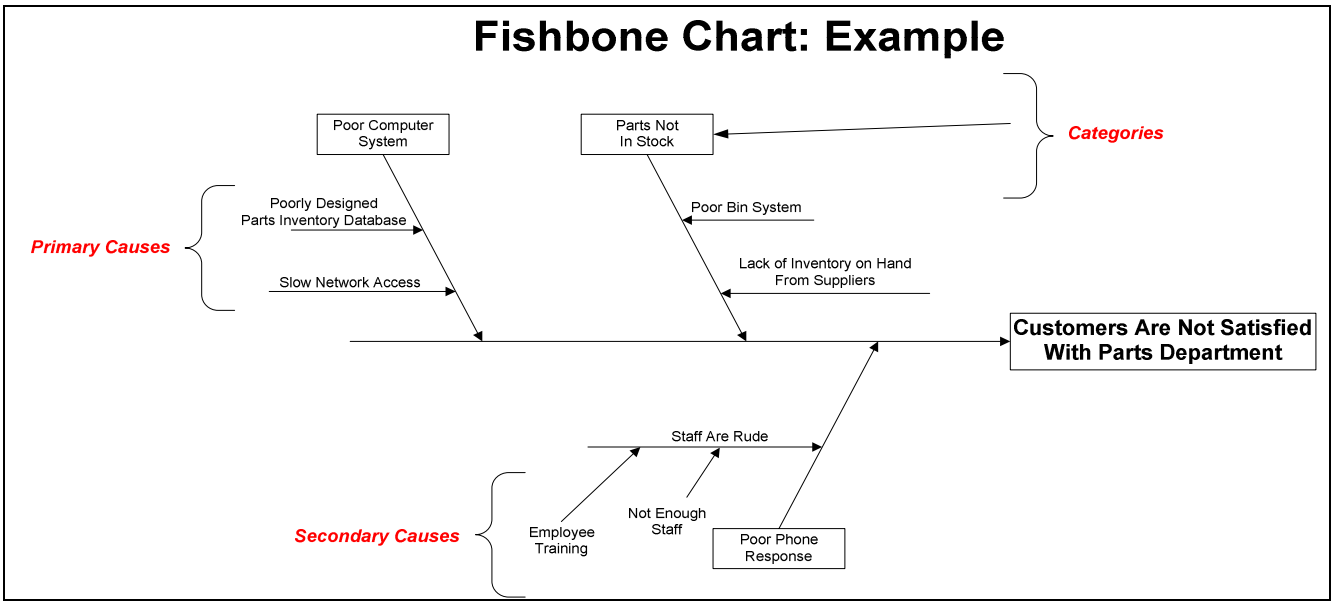


Figure 15: Fishbone Chart: Example

Cause-and-effect diagrams, also called "fishbone" diagrams, are used to help identify all potential causes of a specific problem. To effectively create and use a cause and effect diagram, simply follow the following four steps:

1. ***IDENTIFY THE PROBLEM***
   Write down the exact problem you face in detail. Where appropriate, identify who is involved, what the problem is, and when and where it occurs. Write the problem in a box on the left hand side of a large sheet of paper. Draw a line across the paper horizontally from the box. This gives you space to develop ideas.

2. ***WORK OUT THE MAJOR FACTORS INVOLVED***
   Identify the factors that may contribute to the problem. Draw lines off the spine for each factor (category), and label it. These may be people involved with the problem, systems, equipment, materials, external forces, etc. Try to draw out as many possible factors as possible. If you are trying to solve the problem as part of a group, this may be a good time for some brainstorming. Using the 'Fish bone' analogy, the factors you find can be thought of as the bones of the fish.

3. ***IDENTIFY POSSIBLE CAUSES***
   For each of the factors you considered in stage 2, brainstorm possible causes of the problem that may be related to the factor. Show these as smaller lines coming off the 'bones' of the fish. Where a cause is large or complex (primary cause or causes), then it may be best to break it down into further secondary level causes. Show these as lines coming off each cause line.

4. ***ANALYZE YOUR DIAGRAM***
   At this point, you should have a diagram showing all the possible causes of your problem. Depending on the complexity and importance of the problem, you can now investigate the most likely causes further. This may involve setting up investigations, carrying out surveys, etc. These will be designed to test whether your assessments are correct.

Since the usual tendency is to attribute causation much too easily, and therefore perhaps incorrectly, other tools are necessary to determine causation vs. association such as the "Root Cause Chart" and the "Five Whys."

Root Cause Chart

Root Cause charts are great at getting to the bottom of problems because they force you not to focus just on the effects or symptoms of the problem, but rather to isolate the root causes. To do this, you can just grab a handful of "sticky notes" and jot down problems, and then categorize them under a general heading.

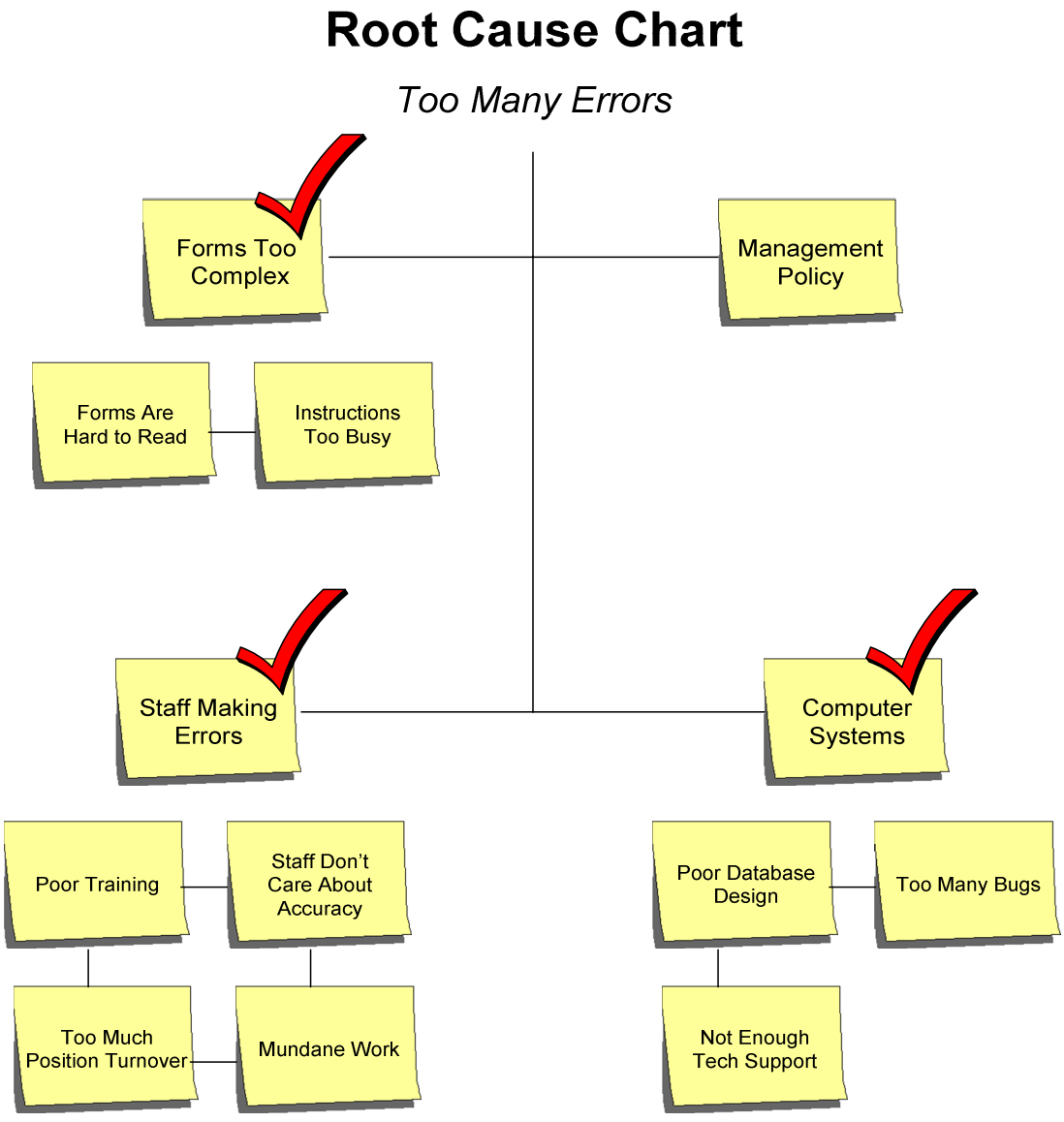


Figure 16: Sample Root Cause Chart

Five Whys

When you are faced with a problem it is useful to stop and ask *why* five times. It is an easy exercise to conduct and very effective; unfortunately, only a few people do it.

This is a very simple yet powerful technique. The aim is to ensure that a problem stays solved and never happens again. This aim can be achieved by identifying and eliminating the root cause of the problem. When the root cause is eliminated, the original problem should be solved permanently. If the root cause is not dealt with, the problem can reoccur, making for much frustration and cost overruns.

Example

A patient received the wrong prescription.
Why?
The prescription was incorrect.
Why?
A wrong decision about prescribing the medication was made by the physician.
Why?
The patient's chart did not contain all the information the physician needed.
Why?
The physician's assistant had not entered the patient's latest lab test result.
Why?
The lab technician had phoned the results through to the receptionist, who forgot to tell the assistant.

This exercise uncovers that the root cause here is the absence of a formal system for recording lab test results. The solution is to design and implement a system that helps ensure patients will never receive a wrong prescription again due to incomplete lab test data.

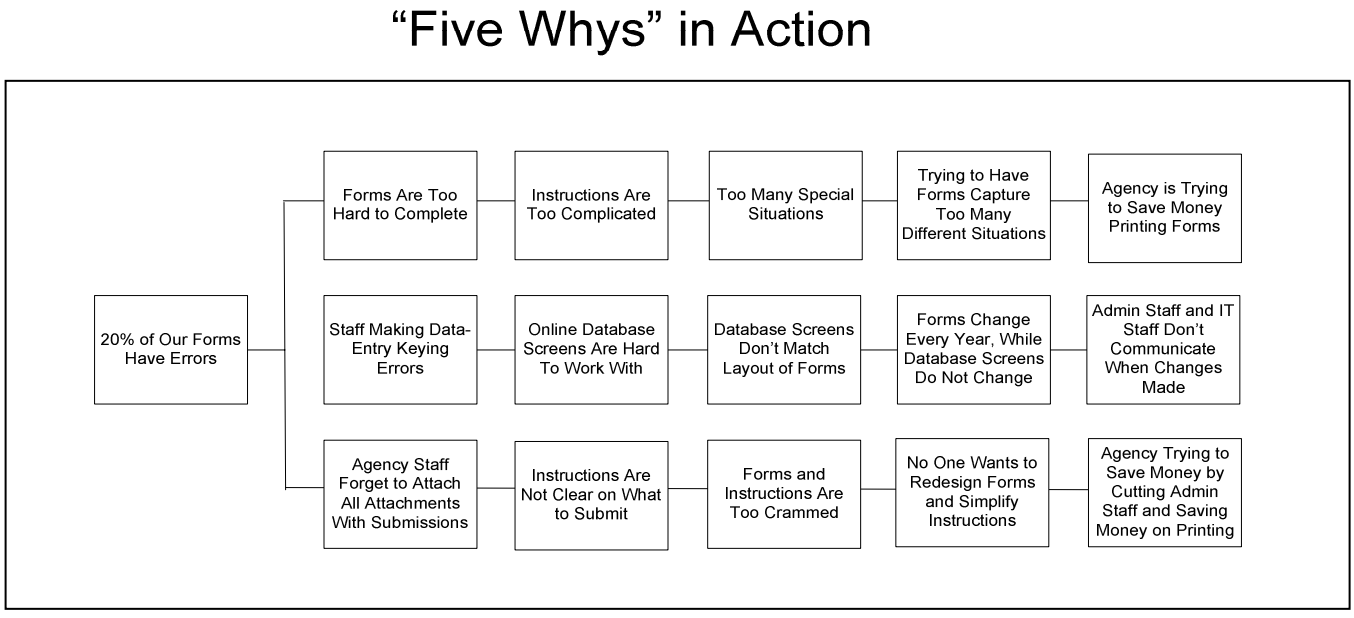


Figure 17: Five Whys Chart

Pareto Analysis

Pareto analysis is a very simple technique that helps you to choose the most effective changes to make. This analytic technique uses the Pareto principle which stipulates that by doing 20% of the work, you can generate 80% of the advantage of doing the entire job. Pareto analysis is a formal technique for finding the changes that will give the biggest benefits. It is useful where many possible courses of action are competing for your attention.

Begin Pareto analysis by writing out a list of the changes you could make. If you have a long list, group the changes into a list of related changes. Then score the items or groups. The scoring method you use depends on the sort of problem you are trying to solve. For example, if you are trying to improve customer satisfaction, you might score on the basis of the number of complaints eliminated by each change. It is at this point that you could also score using performance measures if they are available for the various topics.

According to Pareto analysis, the first change to tackle is the one that has the highest score. This one will give you the biggest benefit if you solve it.

The options with the lowest scores will probably not even be worth bothering with - solving these problems may cost you more than the solutions are worth.

Example:

A program manager has taken over a failing service center. The manager uses focus groups or survey tools to find out why customers think that the department's service is poor.

The program manager gets the following comments back from the customers:

1. Phones are only answered after many rings.
2. Staff seem distracted, frazzled and under pressure, and often appear to be rude.
3. Technicians and support staff do not appear to be well organized. They often need second visits to bring extra parts, resulting in further downtime for the customer.
4. They do not know what time they will arrive, meaning that the customer has to be on standby all day until the technician appears.
5. Staff members do not always seem to know what they are doing.
6. Sometimes when staff members arrive, the customer finds the problem could have been solved over the phone.

The manager groups these problems together. He then scores each group by the number of complaints, and orders the list:

Lack of staff training: items 5 and 6 in the above example received 66 complaints;

Too few staff: items 1, 2 and 4 in the above example received 21 complaints; and

Poor organization and preparation: item 3 in the above example received 13 complaints.

By performing the Pareto analysis above in our example, the program manager can better see that the vast majority of problems (66%) can be solved by improving staff skills.

Once this is done, it may be worth looking at increasing the number of staff members. Alternatively, as staff members become more able to solve problems over the phone, maybe the need for new staff members may decline, which is why it is recommended not to "solve" all the issues at once.

From the results, it looks as if comments on poor organization and preparation may be infrequent, and could be caused by problems beyond the manager's control.

By carrying out a Pareto analysis, the manager is able to focus on training as an issue, rather than spreading effort over training, taking on new staff members, and possibly installing a new computer system.

The beauty of Pareto analysis is that it is a simple, non-technical technique that helps you to identify the most important problem to solve first.

In short, to use the Pareto analysis technique:

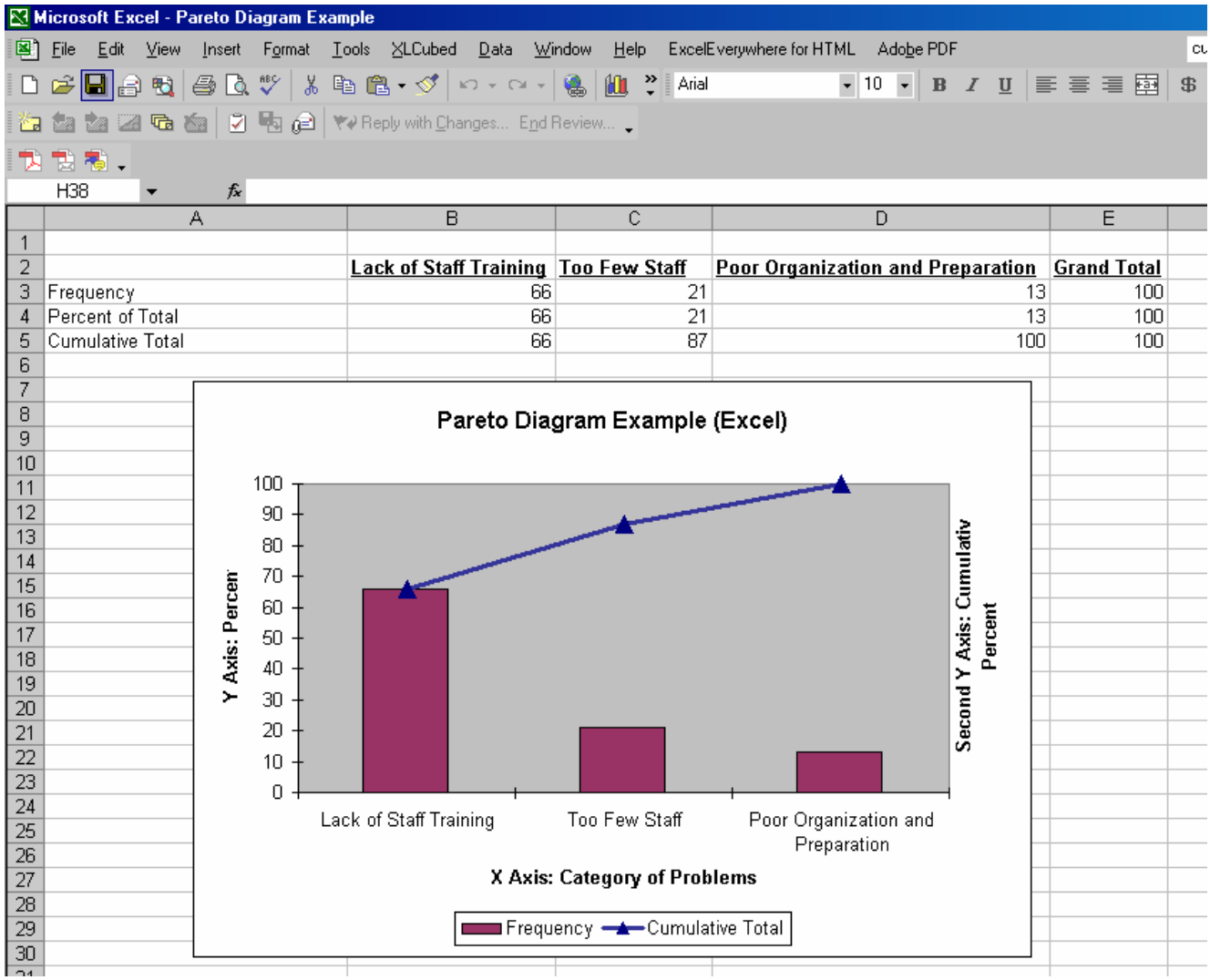
- list the problems you face, or the options you have available;
- group options where there appears to be a logical grouping or category for a larger problem;
- apply an appropriate score to each group; and
- work on the group with the highest score first.

Pareto analysis not only shows you the most important problem to solve, it also gives you a score showing how severe the problem is.

Pareto Diagrams

The Pareto diagram looks similar to a histogram or bar chart, except that the bars are arranged in decreasing order from left to right. The fundamental idea of Pareto diagrams for quality improvement is the ordering of factors that contribute to a quality, and the bars are arranged in such a way that priorities for process improvement can be established.

Category	Frequency	Percent of total	Cumulative %
Lack of Staff Training	66	66	66
Too Few Staff	21	21	87
Poor Organization and Preparation	13	13	100
Grand Total	100	100%	100%



	A	B	C	D	E
1					
2		**Lack of Staff Training**	**Too Few Staff**	**Poor Organization and Preparation**	**Grand Total**
3	Frequency	66	21	13	100
4	Percent of Total	66	21	13	100
5	Cumulative Total	66	87	100	100

Figure 18: How to Create a Pareto Diagram in Excel

Time Value Chart

A Time Value Chart can paint an extremely vivid picture of just how much waste in the form of waiting and queuing time there is in a process. It shows you in no uncertain terms what the potential benefits can be if you make the process flow. It is estimated that even modest revamping of processes can result in an 80% reduction in cycle time. Follow the steps below to create a Time Value chart:

1. For a service that you have chosen to improve, identify true value from your customers' perspective.

2. Draw your process map of how the service is currently delivered.

3. Draw a graph with time along the horizontal axis and value on the vertical axis (see an example on the next page).

4. Value, on the vertical axis, will start at zero to represent the beginning of the process, that is, no value will have been created before the process starts to operate. At the top of the vertical axis write '100%' to represent the end of the process, when the total value will have been delivered to your customer.

5. Work your way through the boxes on your process map, starting at the beginning. For each activity in the process that is actually creating value for your customer, draw an upward sloping line. Whenever value is not being created in the process but time is passing by, draw a horizontal line.

6. Write down the actual elapsed time on the horizontal axis.

7. When the chart has been completed, add up all of the value-adding time and all of the non-value-adding time.

8. Compare these two figures and examine the difference.

Example

If you take the part of the process from the time the patient checks in at reception to the time the result is given back to the patient, the Time Value Chart looks like this:

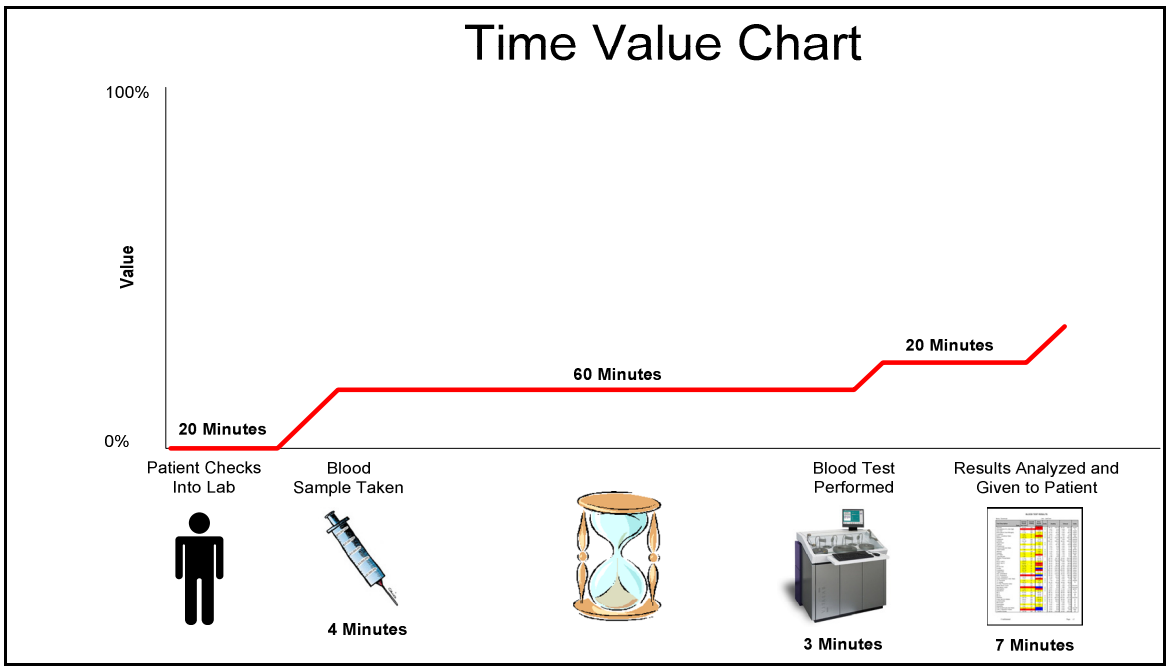


Figure 19: Time Value Chart Example

In other words, in the above example, it took 100 minutes to deliver this service to the patients, but it actually took only 14 minutes to give them the service they wanted. By streamlining this process, a time savings as much as 86% could be realized, depending on the process improvement.

Step 4: Envision the Future Process

After you have flowcharted a process, you should identify roadblocks, complexities, and unnecessary steps (like too many reviews) and take steps to eliminate them. These are the types of situations you should be on the look-out for:

- Complex processes – the more complex a process is, the more opportunities there are for errors
- Number of hand-offs to different people or processes – also an area where errors are introduced
- Decision points (represented by the diamond symbol) – usually indicate some time of inspection, review, or approval point in the process. Ask, "Can this review step be eliminated?" Many reviews and inspections can be eliminated as employees are empowered and accountable for the outputs of their processes.
- Non-value-added steps such as duplication of effort
- Repetitive steps and paper copies – look for ways to substitute automation for these

Step 5: Implement Changes

Using the information gathered in the previous steps, changes are recommended to improve the process. It is critical that the process owner (one who has managerial control over a particular business area) be fully engaged in all the preceding and succeeding steps if the change is to be successful.

A simple milestone chart can be used to define the implementation plan. It should delineate the tasks/actions required, who will be responsible, a target completion date and the actual completion date.

Step 6: Verify Changes

In this step, performance measures are again employed to enable monitoring and evaluation of the process to determine if the anticipated improvement has occurred. In particular, improvement plans should emphasize a balanced set of both process and product focused measures that ensure process efficiency, product quality and customer satisfaction, centering on timeliness, cost savings, cost benefits, reliability, ease of use and value.

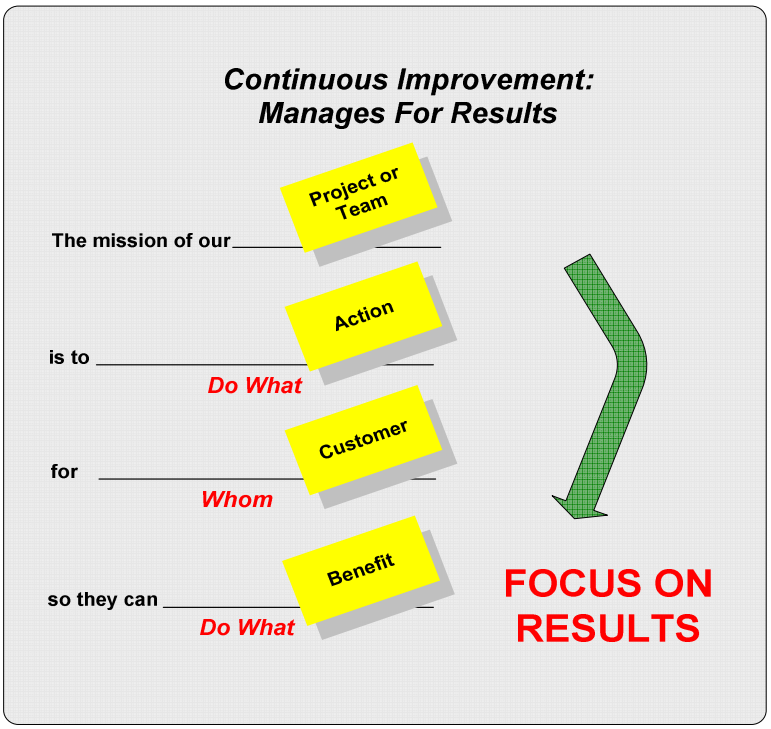
Step 7: Strive for Continuous Improvement

Continuous improvement means not being satisfied with a "good job," but always striving to do a better job. Too often we view process changes as one-time events and do not revisit them unless prompted by a new customer complaint. It is important to remember that customers' needs and expectations are constantly changing. If we fail to take a proactive approach to seeking new opportunities for improvement, we run the risk of becoming a stagnant organization.

One of the principal means of determining avenues for improvement is through conducting focus groups with segmented customer groups. A pertinent question to ask is, "If you could change one thing about _____, what would it be?" This exercise will generate a list of attributes which may include the following:

- Accessible
- Attractive
- Challenging
- Cheap
- Clean
- Clear
- Comfortable
- Compact
- Concise
- Convenient
- Customized
- Dependable
- Durable
- Easy
- Easy to Learn
- Easy to Repair
- Economical
- Effective
- Efficient
- Environmentally Safe
- Energy Efficient
- Engaging
- Exciting
- Fast
- Free
- Fun
- Hassle-Free
- Inexpensive
- Interesting
- Less Stress
- Lightweight
- Long-Lasting
- Low Maintenance
- Pain-Free
- Power
- Practical
- Quick
- Reliable
- Retractable
- Responsive
- Reusable
- Safe
- Scalable
- Secure
- Short
- Simple
- Small
- Timely
- User-Friendly
- Visual
- Well-Supported

Typically, the goal of continuous improvement is to make something better, faster and cheaper. In the context of performance measurement and government, continuous improvement also focuses on these entities to bring about the desired results that residents expect. By implementing the steps outlined in this manual in the context of performance measures, you can engage in continuous improvement 24/7, day-in and day-out. The following template can help staff focus on a results-driven process that brings about tangible benefits to County residents.



Step 8: Embrace Innovation

While continuous improvement focuses on the inward or the "how," e.g., "making a better mousetrap," innovation focuses on the outward, namely, making a desired outcome easier to obtain. Instead of seeking to add new features, this step focuses on answering the question, "What is the purpose of our program/service?" This type of exercise will help you determine if there might be a better way to achieve your customers' desired outcomes than the current program/service or provide alternatives as opposed to just making the current program/service better, faster, and cheaper.

Summary

We measure performance in Fairfax County not to keep score or to punish failure, but to foster continuous improvement in all we do. No matter how good you think your services are, there are ALWAYS ways we can improve by delivering services better, cheaper, and faster. If you don't think so, ask your customers.