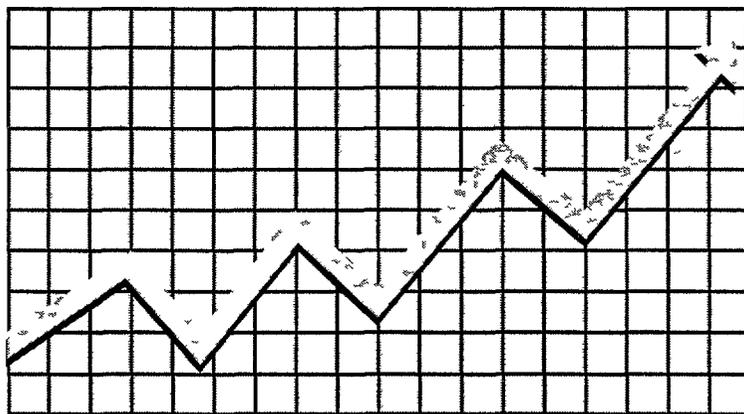


Measuring the Success of Local Government Service Delivery



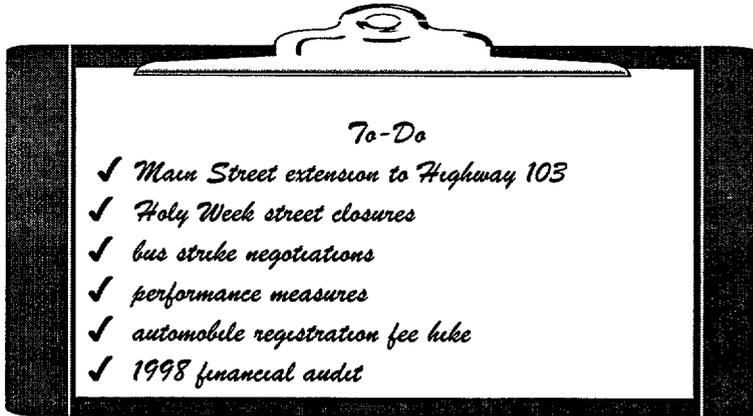
Prepared for
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By
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National Research Center, Inc
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Jumping Into It

In the solitude of his office, the stinging chatter of the president of the Southview Neighborhood Association finally drifting out to space, Michael Suarez, city manager of Aguasano, stares at the growing to-do list crowding out the white space on his note board



He walks slowly to the board and writes in small enough letters so that he can fit the words in but still in large enough print that he can read

Sewer line repair and extension - Southview

Michael feels a twinge of unease as he has felt each time he has looked at his reminder list this last month. He has been the city manager in Aguasano for three years and was an assistant city manager for four years before that. He knows how to deal with unions, engineers and finance people. Road and sewer work, he can get his hands on. Being able to make tough budget decisions is what got him this city manager position. What's worrying him is, "*performance measures*"

Council member Arena had heard about performance measures at an ICMA (International City/County Management Association) conference and now he's become a rabid convert growling at Suarez every time he tells him to "get on it". Trouble is, Suarez doesn't know what "*it*" is. Sure, it's some kind of management tool. It probably is another fad like zero based budgeting designed to keep food on the table for a whole generation of consultants.

Councilor Arena was convinced by some ICMA instructor that this performance measurement thing was *the* way to report to city council and the public just how well the local government is doing. "It's objective," Arena said. "This way I can find out two things you somehow think are none of my business. What's happening and what's working. And everyone else can know, too."

It was that last part that really did not sit well with Michael Suarez. It's one thing to order a management study that is done as part of everyday activities and reported only to the city manager. It's quite another to hang out dirty laundry in public where everyone can see the problems staff is working so hard to fix.

“Well, if I’m going to measure the performance of this organization, I better have a plan for what we’re going to do with these measures when they come back,” Suarez says to himself

Michael Suarez’s instincts are right. All he needs to know is that this project is called performance measures - it doesn’t matter how it is to be conducted or even what the measurements are going to be. He needed to start with a plan to deal with the report when it comes back to his office only a week or two before it will go to council, the press and the public. Measuring performance in government is a completely public enterprise.

Two days later Michael calls the first meeting on performance measures. The entire city manager’s staff attends it. Angel Vigil, the assistant manager for internal operations, puts the meeting on the right track. “If we’ve got to do this, we might as well get something out of it ourselves.” Angel, too, has been to the ICMA conference attended by the local council member, but Angel took notes and has actually walked away with some useful information about how to go about measuring organizational performance.

“Well, I’m elated,” Michael says looking directly at Angel. “Now we have someone who cares about this project and we have a volunteer to head it, too.”

When the meeting is over, Angel Vigil quickly writes a note to his friend, Jim Buchner, the city manager of Tucson, Arizona, and explains his and Michael’s interest in starting a performance measurement system. What Jim sends to Angel becomes the beginning of the memo Angel writes to city manager staff to prepare them for the next meeting on performance measures.



MEMORANDUM

FROM Angel Vigil, Assistant City Manager for Internal Operations
TO Michael Suarez, City Manager and CMO staff
RE Getting Started with Performance Measures
DATE January 1, 1998

Here is what I learned from my communication with Jim Buchner in Tucities and I've thrown in a few thoughts of my own. I was strongly cautioned that before we start this project, we have to consider the end of it. We need to know where we're going before we start the trip. Before we begin to define these measures, we need to be clear about what we're going to do with them and we need buy-in for action from the key audiences we will be giving results to. Otherwise we'll probably waste a lot of time and produce another report for the paper graveyard. At our first meeting we'll discuss the purposes and audiences of this effort and possible actions that will grow out of it. Then we'll talk about a performance measure action committee.

Meeting Agenda

- Step 1 Specify the purposes, audiences and possible action items that will grow out of the measures
- Step 2 Select a committee to receive the report and make recommendations for action steps

Background on Performance Measures

Since a few staff members have been asking about why this performance measure thing has gotten to be so popular, I thought I'd give a little background to those who will be attending this second meeting.

Performance measures grew out of an accountability movement focused on seeking the kind of clarity about the performance of government and social programs that financial accounting brought to business. The movement dates back to the presidential administration of Herbert Hoover in the 1930's when they began what later became known as social indicators.

The more distant government is from citizens, the greater the suspicion that inefficiency and graft may undermine the amount and quality of service delivery. Consequently, the U.S. federal government is being affected and it has responded with the Government Performance and Results Act and the National Performance

Review which require all U S federal departments to report performance measures by 1998. But it's not just the U S that is strongly behind this movement to monitor performance. The United Nations Conference on Human Settlements began an indicators program in 1989 focused on housing and the urban environment. In the United Kingdom, the Local Government Management Board has developed a program comparing measures of sustainability.

Parts of the private sector, too, are being affected in the United States. Health care and not for profit human service agencies are coming under scrutiny as managed care and tighter budgets make consumers and elected officials suspect that cost cutting may mean cuts in quality of care. In health care, organizations that accredit hospitals have embarked on ambitious programs to identify meaningful measures of health care quality.

Lately, the drive to develop measures of performance in local government grows out of a public suspicion in the U S that tax dollars are not being spent wisely, coupled with a rapidly growing computer technology that permits government and business to track a large number of performance indicators. Consequently, the Government Accounting Standards Board (GASB) has developed a reporting framework for U S state and local government budgeting called Service Efforts and Accomplishments. This really is a fancy way of describing performance measures. Now ICMA has developed a center for performance measurement, which began by getting over 40 large U S jurisdictions to identify a set of performance indicators that they all would collect and report on.

These efforts towards accountability are all aimed at infusing organizations with a concern about quality. U S businesses have been infected with this quality ethic for a long time. Quality and customer satisfaction are emphasized in most of the mission statements of large U S corporations. They jumped on the Total Quality Management (TQM) ethos and technology, which was another way of emphasizing the measurement and monitoring of organizational performance. The popular book by Osborne and Gaebler in 1992 called *Reinventing Government* put government staff on notice that quality was not just for business. Just so you don't think we are alone in trying to figure out this performance measurement routine, I've put together in the table below a summary of what it's called in other sectors.

Measuring the Products and Services of Organizations	
<i>Sector</i>	<i>Terminology</i>
Education	Assessment
Health Care	Quality Indicators or Outcomes
Human Services	Management
Business	Evaluation
Government and Private Sector	Accounting
	Performance measures

The First Real Meeting

In the city manager's staff meeting, Angel begins with item 1 on the agenda - **identify purposes, audiences and outcomes**. This is what is left on the white board from the brainstorming session just before Maria finishes jotting down all the ideas for her memo back to staff.

<i>Possible purposes of performance measurement</i>
<i>✓ Comply with council request</i>
<i>✓ improve internal management</i>
<i>✓ inform the community</i>
<i>✓ monitor impacts of city policies and programs</i>
<i>✓ monitor changes in resident perceptions of service quality</i>
<i>✓ measure and improve our efficiency</i>
<i>✓ measure and improve our effectiveness</i>
<i>✓ improve public relations</i>
<i>✓ evaluate personnel</i>
<i>✓ guide strategic planning</i>
<i>✓ guide the budget process</i>
<i>✓ be accountable for tax dollars</i>
<i>✓ raise public trust in local governance</i>
<i>✓ improve the quality of life of residents</i>

When Maria writes the summary of the meeting she notices that the list of purposes falls into two categories depending on who the measures are for, so she shows them as follows:

Purposes of Performance Measures

External Stakeholders

- X comply with council request
- X inform the community
- X monitor impacts of city policies and programs
- X monitor changes in resident perceptions of service quality
- X improve public relations
- X raise public trust in our governance
- X improve the quality of life of residents

Internal Stakeholders

- X improve internal management
- X evaluate personnel
- X guide strategic planning
- X give guidance to the budget process
- X measure and improve our efficiency
- X measure and improve our effectiveness

For each set of purposes for the performance measurement project, the key stakeholders are clear both for those inside and outside the municipal organization

AUDIENCES FOR PERFORMANCE MEASURES

External Stakeholders

- X City Council/County Commissioners
- X Newspaper and other news media
- X Political parties
- X Watchdog organizations (e.g. Taxpayers union)
- X Neighborhood organizations
- X Religious organizations
- X Appointed committees and boards
- X City and County staff
- X Clubs

Internal Stakeholders

- X City manager
- X All city staff
- X Employee unions

Staff has the hardest time trying to figure out what decisions might grow from the measurement of organizational performance. This is what they come up with

Decisions Which Might Grow out of Performance Measurement

- ✓ budget allocation decisions
- ✓ mission changes
- ✓ policy decisions
- ✓ staff merit evaluations
- ✓ staff deployment decisions
- ✓ program modification decisions

Having completed the first agenda item the city manager's staff turn to the second part of the agenda **Select a committee to receive the report and make recommendations for action steps** It doesn't take more than 15 minutes for the group to identify some names and the key organizations to be represented in the committee They decide to name it The Performance Measure Action Task Force The PMATF will begin by revisiting the uses for performance measurement identified by the city manager's staff They will review and recommend modifications to the list of performance measures that will be developed and they will receive the results and forward their recommendations for action to the city manager and line staff Here are the organizational affiliations who staff felt would be good task force members

***Membership of the Performance Measure
Action Task Force***

- X City manager staff
- X Human resource department staff
- X Finance department staff
- X Representative from each line department
- X City Council
- X Citizens for efficiency in government
- X Chamber of Commerce

One member of the city manager's office raises an important point "How are staff going to be affected by these performance measures? Are they going to get in trouble for bad outcomes? Will they be rewarded? If they can get into trouble, who says they won't be motivated to get the right answer at any cost?"

So, the group decides to adopt a learning model, not a judging model by which to incorporate performance measurement into staff's day to day activities Angel develops two lists to help clarify the distinction

Characteristics that Typically Distinguish Judging and Learning Environments of Performance Measurement Systems	
<i>JUDGING</i>	<i>LEARNING</i>
Makes judgments	Changes behavior
Documents error	Uses mistakes
Focuses on problems	Focuses on opportunities
For programs	For people
To win or lose	To improve
Needs audits	Needs technical assistance
Is for funders	Is for staff and managers
Is reactive	Is proactive
Required of government	Created by government
Is adversarial	Is cooperative
Creates fear	Creates excitement

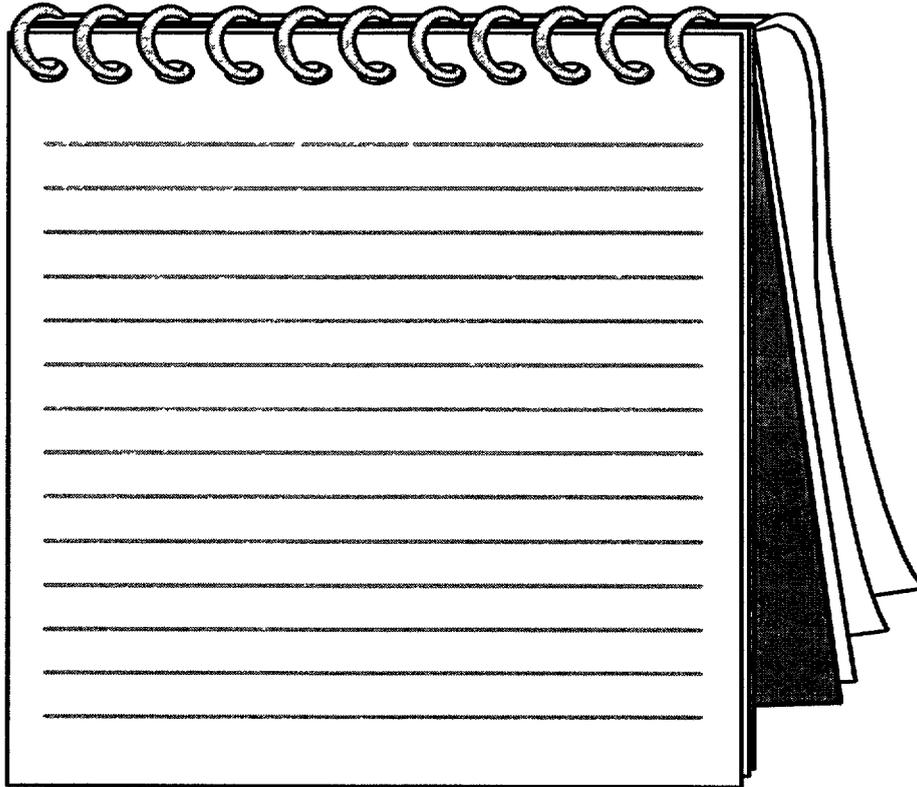
Adapted by Miller et al from United Way publication¹

It is clear that line staff need to receive results of the performance measuring system with no implicit or explicit threat involved and that they need to help determine what actions should be taken at the program level. Angel decides that for at least the first three years, no staff evaluations will be based on results of the performance measuring system. During that time line staff and management will discuss how to use outcomes and outputs in staff evaluations. Only after that time, and with staff participation, will program results be considered in rewarding municipal staff.

¹ Augmentation of Bill Phillips in Report on Lessons Learned in the Pilot Phase of the United Way Outcomes Project, United Way of Greater Milwaukee, Inc, June 1995 p 5

The Nuts-n-Bolts

Now that the end of the project is clear, it is time to clarify how to begin. Angel Vigil is about to become the Aguasano expert on performance measurement. He can see that it will be up to him to define what performance measures are, how to select them, and how to overcome common pitfalls in using them. Angel accumulates a wealth of reference materials about performance measures as he seeks out guidance about how to run the performance measures program. Let's examine his workbook.



“PERFORMANCE MEASURE” DEFINED

Quantification of key actions or circumstances that may represent or account for program, organization or community-wide success

Quantitative information regularly collected and reported about the efficiency, quality and effectiveness of community, organization or program (Urban Institute, 1980)

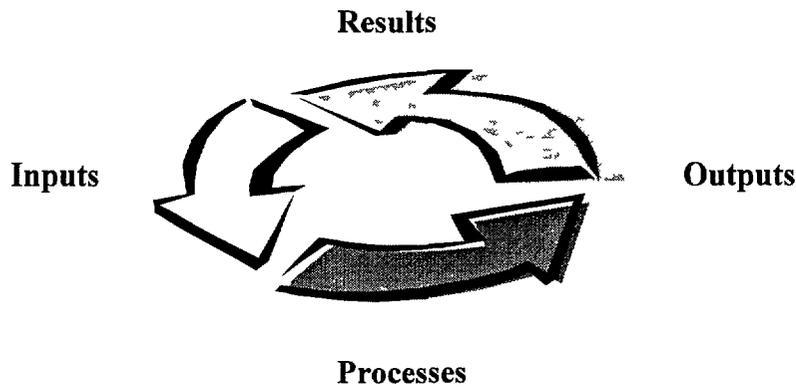
A specific numerical measurement for each aspect of performance (output, outcome, etc.) that is being considered (“performance indicator”, ICMA, 1997)

Clearly, this is a numbers game. But what kind of information is best and where does it come from? Angel gets a bit of inspiration from one source he’s referenced. It says,

At the start of it and at the end of it, keep in mind that we are trying to measure what matters so that, in the long run, we can improve the quality of life of this community’s residents and its visitors

Well maybe it’s not all about numbers. In fact, the numbers are starting to look like the easy part. Performance measures are really summary descriptions of what we do and how well we do it. The currency of performance measuring systems happens to be numbers - the greatest summarizing invention of all times. These numbers serve as quantitative indicators of each performance measure. Our job is to first identify what we do, what characteristics of the context in which we work might affect our success and then we must figure out what success would look like. Once we figure that out, we need only find numeric indicators that will simplify the communication of our story.

Well, if the whole organization is going to embark on this performance measure journey, there must be some way to simplify the tasks, to break them into small enough parts so that no one becomes frustrated or lost. Angel finds a simple way to think about the problem and a graphic that describes the three kinds of measures that comprise a performance measuring system: Inputs, Processes and Results. And each is related to the other as shown in the figure below. This makes the enterprise seem quite a bit less daunting.



Inputs are the resources that go into a community, a municipal government or a local program. They are not measures of performance themselves, but they are important for understanding operations, successes or failures. They provide the context in which the work is done. If the number of potholes repaired declines in a given period, it will be important to know if the number of employees has stayed the same or the amount of funding has remained constant. Furthermore, inputs can include not just the number but the kind of employees, not just the size of the population but the characteristics of the population, not just the dollar funding but the resources in materials and donated time. Other resources - like the natural resources of water, weather, clean air and developable lands - can be part of inputs, too. It will become apparent that these inputs not only affect, but they often are profoundly affected by the processes and results of your work. For example, a successful economic development program may change the demographic mix of your residential population. It may also change the pollution level of your waters.

Processes are the things you do (generally using inputs) to create products and services - the products or services **yield outputs** - which are delivered with more or less **efficiency**. For a community, processes create the outputs of the education system, all of municipal government services, private sector services and activities that grow out of the spontaneous or organized efforts of the public. For the municipal government, processes yield all of the services and products provided to residents of and visitors to the community. Probably the biggest group of visitors will be in commuting employees or tourists.

Community outputs may include bus ridership, the number of cable TV viewers, plots in the cemetery, number of potholes filled, hours of foot patrol by police, gallons of water and sewage treated. Programs are the governmental units within the municipality that are directly responsible for delivering specific services. There, services can be measured the same way as those delivered by the entire municipal organization, but the numbers will be smaller and the connection to results will be more direct. A single program designed to reduce drug use among teens may track outputs that show only the number of hours of its staff's direct contact with teens and the number of teens reached in these direct contacts. The organization may need to aggregate output data from all the programs that have staff working on this problem - the police, the housing authority, teen counselors. And the community will look at all of the services delivered by all the organizations confronting this problem - the Lions Clubs, the school district, the municipal government, the health department.

Outputs can be described more thoroughly than by mere reporting of total numbers. A large organization will treat more water than a small organization. A large program will train more residents

than a small program. Consequently, by controlling for the amount of resources available, we can get a fairer comparison of the outputs from different communities, organizations and programs. This control takes into account the size of the community, the number of staff assigned to the program and the dollars available for solving the problems. When we reflect outputs per unit of input (or vice versa) we have a measure of **efficiency**.

Efficiency measures typically describe how much service is provided per employee or per dollar spent. This measure not only tells how much is accomplished by each person or dollar, it permits fairer comparisons among communities, organizations or agencies that differ in the number of residents they serve, the number of the employees on payroll or the size of their budget.

Measures of output or efficiency, tell us nothing about the *quality* of the service delivered. A municipality may treat 50 gallons of water per dollar allocated and turn out nothing more than raw sewage. An efficient program is not necessarily a good program.

Results are the pistons of the performance measure engine. The entire performance measure enterprise would go nowhere without the measurement of results. Outcomes are how results are described. An **outcome** is what you accomplish by the program or organizational commitment you have in place. Outputs tend to lead to outcomes. The closer an outcome is to the ultimate goal of the community, organization or program the better a measure of performance it will provide. For example, we might settle for the number of reported crimes as an outcome of law enforcement, but we'd prefer to measure residents' feelings of safety or their own reports of their criminal victimization because 1) crime reports can be influenced by how willing residents are to report crimes to police and 2) even if there are few crimes, if residents believe that burglars or murderers are making their community dangerous, there is still a crime problem.

It is one thing to identify what you accomplish and the indicator of your success or failure, it is another thing to be able to pin the change in the outcome indicator on the activities of the program you are evaluating. Outcome measures are terrific for monitoring changes in the characteristics that matter most in the population or resource targeted by program interventions, but they aren't so good at *proving* that those changes were *caused* by those interventions. Outcome indicators tell you what the score is but they don't tell you why you're winning or losing. Could it be the coach, wind, training, a new group of players, just good luck?

Net impacts measure how much an outcome indicator has changed *due to* the interventions of the community, organization or program. It is rare that municipalities devote the resources needed to measure net impacts because to measure net impacts you have to find a target group that does not receive the service whose impact you want to measure. Only in this way - but not always in this way - can you conclude that differences in outcomes are due to the treatment received by one group but denied to the other². Determining net impacts requires not only identifying outcomes, but having the expertise

²

A special kind of study design permits judgments of net impacts without a different group. In this case, data from the same group prior to some program intervention replace the need for a different control group. An inferential statistical test for time series analysis permits conclusions about the significance of changes after the intervention compared to before the intervention. Causal inferences are possible in this instance.

to design an experiment that permits comparison on those outcomes of similar groups - one of which gets the program and one of which does not. Typically a trained social scientist must be part of this effort. Knowing that net impacts can be determined probably serves most to add humility to the entire performance measurement exercise. We generally are content to use our managerial expertise to intuit the reasons behind changes seen in outcome measures. After all, a pilot's instrument panel does not explain why the craft is descending at 300 miles per hour, only that it is. It is the pilot's job to determine how to right the craft.

Cost effectiveness is an analysis yet one step more difficult than net impacts because cost effectiveness calculations attempt to assign costs to increments of improvement in the outcome that are due to the program. For example, a program to find work for unemployed laborers has as one outcome the number of clients who have begun jobs within 6 months of admission to the program. An impact analysis shows that 60 of 100 program participants had begun work compared to 30 of 100 similar laborers who did not attend the program. A cost effectiveness analysis might demonstrate that it cost \$1,000 for each job found because of the program.

Example of Performance Measurement Concepts

Concept	Example
	<i>Resources</i>
<i>Inputs</i>	Number of sworn officers Number of officers with training credentials
	<i>Outputs</i>
<i>Services</i>	Number of arrests Number of calls taken by dispatch
<i>Efficiency</i>	Arrests per sworn officer
	<i>Results</i>
<i>Outcomes</i>	Residents' reports of victimization
<i>Net Impacts</i>	Reduced crime rate
<i>Cost-effectiveness</i>	Cost per crime avoided

An example of the different concepts can be made for the police department.

The following tables give examples of the indicators for a performance measurement system for communities, municipal organizations and programs

Examples of Performance Measures Used in Local Government					
<i>Performance Categories</i>	<i>Types in Categories</i>	<i>Macro Level The Community</i>	<i>Mid Level The Organization</i>	<i>Micro Level The Program</i>	
INPUTS	Resources or structures	Sales tax revenues	Annual revenues	Annual budget	
		Total population	Full time employees	Full time employees	
OUTPUTS	services or products	Citizen education level	City Manager's years of experience	Staff education level	
		Acre feet of water rights	Total office square feet	Client education level	
		Voting age population		Hours of volunteer time	
		Rhodes scholars chosen	Gallons of water treated	Number of clients	
efficiency	efficiency	Property crimes	Homeless sheltered	Bus riders	
		Live births to residents	Library books circulated	Hours of training	
		Tons of beets harvested		Dollars loaned	
RESULTS	outcomes	Births per 1000 women	Gallons treated per dollar	Chents per clinician	
		Beets per acre feet H ₂ O	Homeless nights/Fulltime employees	Riders per bus	
		Rhodes scholars per \$\$ spent on education	Books per capita	Dollars per training	
	net impacts	outcomes	Rating of quality of community life	Violent crimes cleared	Houses inspected per inspector
			Neighborhood quality rating	Water quality test scores	Client satisfaction
cost-effectiveness	net impacts	Crime victimization	Services quality ratings	Client quality of life	
		Reduced teen pregnancy	Customer ratings of employees	Birth rates among teens	
cost-effectiveness	cost-effectiveness	Decreased cancer rate	Rise in street repair rating	Student GPA	
		Improved voter turnout	Improved ratings of employees	Rise in satisfaction	
cost-effectiveness	cost-effectiveness	Cost per life saved	Cost per unit improved in water quality rating	Improvement in GPA	
		Cost per crime solved		Reduction in water use	
cost-effectiveness	cost-effectiveness			Cost per gallon saved	
				Cost per point improvement on GPA	

Examples of Performance Measures Commonly Used in Local Government Performance Measurement Systems

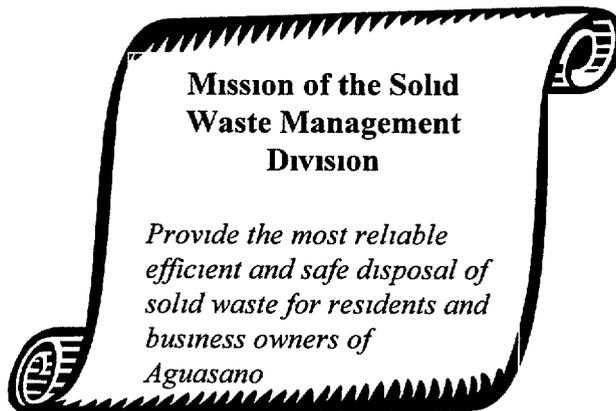
Local Gov't Department	Services- Products - Efficiencies	Result Measures- Outcomes
fire	average response time, number of EMS runs, number of FTE fire fighters per capita, number of fire trucks per capita	fire starts per capita, civilian fire injuries per capita, dollars of fire loss per dollar value protected, resident perception of fire safety, cost per life saved
health care	percent of children immunized, percent of low birth weight babies, percent of mothers receiving prenatal care, etc	infant mortality, number of preventable deaths (e g TB, malaria, etc), HIV infection rate, cancer rate, percent of children with birth defects
education	percent of children attending public schools, bus costs per student transported, student teacher ratio	average GPA, students standardized scores on achievement tests, high school completion rate, literacy rate
library	books in circulation per capita, square feet of library space per capita	resident satisfaction with library services
parks and recreation	number of parks or park acres per capita, number of recreation opportunities per capita, residents per rec class	resident satisfaction with opportunities and quality, resident fitness
planning/communit y development	Number of land use planners per capita, inquiries on zoning per year, cost per PUD review	resident rating of quality of reviewed development
police (crime prevention, crime deterrence)	arrests, arrests per FTE, number of police patrolling city on a weekend night, number students trained by police outreach	crime victimization, violent crimes cleared, resident perceptions of safety , resident perceptions of police, cost per crime solved
social services	number of homeless sheltered, number of meals served/lbs of food delivered, number of hours therapy delivered to mentally ill residents	teen pregnancy rate, jobs held more than 1 month, functional abilities of severely mentally ill, number of deaths of homeless, user satisfaction with services,
streets	miles of streets maintained, miles maintained per FTE	number of potholes per mile, resident perceptions of streets
trash haul	number of pounds of trash collected per two person crew per day	resident satisfaction with trash service, cases of disease from poorly disposed of trash
water/sewer	number of gallons of water treated, number of line repairs, miles of new pipe laid	water quality test scores, resident ratings of water (quality, taste, reliability, cost), cases of illness caused by water-borne disease, days per year with continuous flow

Selecting Indicators of Performance

Angel Vigil decides that it is best to be clear if the intention is to measure the performance of each program in the municipality, the performance of the municipal government as a single entity or the performance of the community as a whole. If he is going to survive this enforced innovation, it probably makes sense to begin small and phase into the performance measure program. He'll recommend to the city manager that they start with the solid waste management program in public works and after getting that up and running to phase the rest of the departments in over the next 18 months³

But how should the solid waste staff start to choose indicators? Angel decides that not all performance measures are created equal. It is best to start with results or outcomes. These will be the indicators most closely linked to the missions of each department. To identify a few key indicators of success or quality, it will be necessary for staff to revisit the mission of the solid waste management program and to figure out what success would look like and to answer the question, "What do we mean by quality service?" The same would go for the organization as a whole and a vision would have to be reaffirmed for the community if it ever becomes time to develop measures of "success" for the entire municipality.

Angel Vigil, the assistant city manager for internal operations, convenes 5 key staff members from solid waste to begin identifying outcomes for measuring the success of their work. Here is what they produce:



How will they know if they have succeeded? Angel asks for a brainstorming session uninhibited by worries about where the data will come from. First he wants to see what indicators of success or failure staff will come up with. Here are the measures that come from that meeting:

★ *Outcome Measures Selected by Solid Waste Managers*

- ✓ Number of missed collections per 10,000 scheduled stops
- ✓ Cases each year of illness among consumers due to disease from solid waste
- ✓ Customer rating of collection speed
- ✓ Customer rating of value for given costs
- ✓ Customer rating of collection reliability
- ✓ Overall customer rating of trash haul quality

³ An equally defensible strategy would be to start with the program with the highest visibility or biggest budget.

It is pretty obvious that some outcomes are “objective” observations and some are “subjective” opinion Which are correct? Angel concludes wisely that both are important given the mission of the division and that he can’t afford to have an objectively great solid waste management division that its customers hate

The next task is to identify division outputs and inputs that might influence results These will be important clues for guiding management decisions to improve outcomes This is what comes from the next meeting

★ *Input Measures Selected by Solid Waste Managers*

- x Total residential and commercial customers
- x Number of customers participating in recycling program
- x Number of FTE uniformed sanitation workers
- x Landfill capacity
- x Capacity of other disposal methods
- x Value of recyclable materials
- x Size in cubic meters of collection equipment
- x Size of typical items collected
- x Total dollars in operations budget

★ *Processes Measures Selected by Solid Waste Managers*

Outputs

- x Thousands of cubic meters of trash collected
- x Thousands of cubic meters of materials recycled
- x Amount of money made in sale of recyclable materials

Efficiency

- x Number of collection stops per employee
- x Tons of solid waste collected per employee per year
- x Absentee rate for uniformed sanitation workers
- x Kilos collected per labor hour
- x Customer monthly charge per tons of trash hauled each month
- x Kilos of recycled material per 1000 kilos of trash deposited to landfill

At their third meeting, the solid waste staff and the assistant city manager spent an hour and a half trying to imagine what they will do in the year 2008 with 10 years of data showing small but noticeable declines each year in customer ratings of trash haul quality and reliability

“I’d want to know if our customers were making more money, buying bigger things and dumping the old T V ’s or washing machines at the curb,” says Mark, the collection manager

“What’s the land development pattern been?” asks Jim, “ Have the routes gotten so far apart that we can’t give the kind of speed in service we once did?”

“Are customer costs going up? That might tick people off, change their expectations,” says Ruth, the operations manager

“If it’s costs or the development pattern, I don’t know what we can do,” says Mark. If it’s too many sick days, or crews that have slowed down, that’s what I went to public management school for. That I can solve.”

“Well,” replies Angel. “If customer expectations are causing a decline in our outcomes, we better find a way to communicate with them so that their expectations don’t undermine our work. We need an education campaign to let people know what is causing prices to rise and why it takes longer to get through our routes. They should know what to expect from us.”

Guide for Selecting Performance Standards

As the discussion of potential results comes to an end, Mark, the collection manager says, “We’ve got our outcomes and our outputs pretty well defined, but when do we declare victory? How do we know when we’ve succeeded?”

“We can always do better, try harder or at least try as hard as possible,” Angel replies

“But that’s what makes these performance measures better than just telling staff to try as hard as they can,” says Mark. He’s seen it a hundred times even when things went to hell in the sewer treatment plant last April. “No one’s gonna tell you they’re not trying their hardest. These performance measures tell us if our hardest is hard enough. I’d like to have something a little more solid to measure our success against.”

“Okay,” Angel agrees, “let’s set some specific objectives.”

But, how?

Setting Performance Standards

These “objectives” can be referred to as performance standards. They often have as much to do with motivation as with measurement. But beyond motivation, they do serve a useful function for interpreting the meaning of outputs, efficiency measures and outcomes. They are particularly useful in performance measuring systems in which net impacts are not measured. This would include most performance measuring systems

because they lack a control group that helps set an anchor for what could be expected in a “natural” setting without program intervention. A performance standard, selected with care, can become that anchor, more easily allowing program staff to judge success.

“What are reasonable performance standards to shoot for?” Angel wonders. He and Mark get together to consider the options. They decide that it is important not to over-promise or shoot too low. A standard that is too high will just frustrate staff and make the solid waste program look ineffective. A standard that is too low would probably just inflame the residents of the community who already suspect that local government employees don’t have the drive that is found in the private sector. Setting the bar too low will come across as feeble inspiration.

“Let’s take each measure on a case by case basis,” they decide. They ask themselves the following questions for each outcome and output measure:

Guide for Selecting Performance Standards

1. What level are we at now?
2. Can we or should we do better or should we just try to maintain?
3. How do other jurisdictions do on this measure?
 - 3a. Do we want to exceed known or desired levels, shoot for the middle or accept
4. Is there a level of performance accepted by a national society?
 - 4a. Do we want to exceed these national standards, shoot for the middle or accept
5. Is there a level of performance that staff or this community demands?

They begin asking these questions about their first outcome measure:
Number of missed collections per 10,000 scheduled stops

Q1 What level are we at now? —

A1 This year we missed 42 collections per 10,000 scheduled stops. We had over a 1.3 million scheduled stops for residential and commercial customers this year with about 5500 missed collections.

Q2 Can we or should we do better or should we just try to maintain? —

A2 We won't get a perfect record because some number of those “misses” were just customers who claimed a miss but put their trash out late. Still we should be able to do better.

Q3 How do other jurisdictions do on this measure?

A3 Public works directors in 3 nearby communities with about the same size system have been averaging about 35 misses per 10 000 scheduled stops

Q4 Is there a level of performance accepted by a national society?

A4 No national society standards exist

Q5 Is there a level of performance that staff or this community demands?

A5 Sure, community members would like perfection but given our current budget for trash haul, we don't want to make promises we can't keep I think reasonable community members could be made to understand that we can't hit perfection all the time

Applying these questions to all the measures was helpful, but citizen perceptions were not addressed Angel and Mark take the first stab at performance standards and then they meet with the PMATF to flesh out the plan In the table below are a few of the outcome and output performance standards the PMATF came up with as well as the rationale for each standard

Performance Standards for Treated Water		
<i>Performance Measure</i>	<i>Standard</i>	<i>Source or Rationale</i>
OUTCOMES		
• Number of missed collections per 10,000 scheduled stops	30 per 10,000 scheduled stops	Comparison to neighbors
• Cases each year of illness among consumers due to solid waste-born disease	0	Community standard
• Customer ratings of trash haul	80 on 100 point scale	U S average is 80 (see Miller and Miller, 1991)
PROCESSES		
• Thousands of cubic meters of trash collected (<i>output</i>)	40,000 mt ³ per year	Budget allocated Community size Comparison to neighbors
• Kilos collected per labor hour (<i>efficiency</i>)	725 kilos	Comparison to neighbors Last year's results

The exercise with solid waste goes well and staff is pleased with the measures that will be used to judge success. The staff support for the project was seen, correctly, to be an essential component of making the new system work. Without staff participation and support, winter would set in quickly on the measurement program.

The division is now ready to set an example for the rest of the organization. But some of the data are easier to get than others. They have put off the question about where to get trustworthy data and, in fact, how to know if it is to be trusted. Now they have to confront that problem before they can get started collecting their measures.

Creating Reliable Indicators

Some indicators will be easier to get hold of than others. Assuming the indicators will be collected over a period of years so that program performance can be monitored, a clear description of the methods used to collect each indicator is required. This description or protocol serves not only to ensure that changes in inputs, outputs or outcomes over time will not be due to a slip-up in data collection methods, but it will serve as a useful training tool for new staff. The protocol helps to establish the reliability of the data.

The protocol should specify when data are to be collected, who will collect them and by what method they will be

<i>COLLECTION PROTOCOL Customer Rating of Overall Quality of Trash Haul (outcome)</i>	
When	March 1
Who	400 randomly selected customers
How	Mail /Mail back

collected. A summary protocol is shown in the table below.

This protocol will need to be augmented with one of greater detail. The detailed protocol will specify how the 400 customers are to be randomly selected and contacted. Customer surveys require special methods. Just as there are standards for identifying trash-borne diseases, so too are there valid methods for collecting

public opinion. The data will be the hardest to collect largely because there is unlikely to be expertise within the organization to complete the task. It is likely that you will need to hire a consultant to help. Still, a simple protocol for a survey is possible even without the help of a consultant and it will be enough to keep staff on track and inform the consultant in the coming years.

**COLLECTION PROTOCOL FOR
Kilos collected per labor hour (*efficiency*)**

When	Daily
Who	Drivers and Operations manager
How	Records made at land fill

Ensuring the Work Gets Done

The system now is in place to begin measuring meaningful and reliable indicators of program quality. But just because the plan is good and the people are motivated, it doesn't mean that data

collection problems will be absent. Furthermore, it's not as though this performance measurement system will be dropped into an empty bucket for all to marvel at. No doubt there already exists a number of management measures to track the proper processes for managing solid waste. The current performance measurement system with its emphasis on inputs, process and outcomes must find a proper fit with what already exists in the organization.

Angel and Mark devise an inventory of existing resources.

Resource Inventory

- ✓ What data are we currently collecting?
- ✓ How much, if any, of the data can be used in our performance measurement system? Are alterations in the data collection methods necessary?
- ✓ Do we need to continue collecting the data, which are not useful for the system?
- ✓ Who is the best person to collect the new data? Does this person have time to take on these new responsibilities?
- ✓ Is there technology which might make the data collection and tracking easier? Is it worth the expense to obtain it?

Mark and Angel meet with the solid waste staff to answer the questions posed in the inventory. It turns out that a few of the items selected for performance measurement monitoring are already part of what staff monitors regularly - cubic meters of trash collected and customer monthly charge. Some data have been collected for years because of tradition and now they can be jettisoned - number of customer complaints and number of tardy reports to work by sanitation workers - because they are not needed given the clearly articulated project mission or they will be redundant with more targeted data called for as part of the new plan.

Some of the new data will need to be found. The plan for a customer survey must begin and data about waste-born illnesses will require a new agreement with the health department.

Once the data collection methods are set, Angel and Mark agree to reconvene to determine if any data collection problems have arisen. Over the course of the next 9 months Mark and Angel meet with staff three times to discuss how measurement is going and to prepare for the data which will be back for interpretation before too long. As it turns out, Mark has run into some problems with the health department, not because they are unwilling to cooperate but because some judgement calls are required to determine which diseases should be attributed to solid waste-born contamination and which to other sources. A meeting with some of the health department's top medical staff eliminates the ambiguity by specifying the illnesses whose transmission is likely to be born in solid waste.

A year elapses quickly. Angel has the process and outcome data staring up at him from his desk. Now what does he do? He thought it would all be a piece of cake at this point. He likes the Tucities model for presenting the data, a performance Report Card which he decides to mimic for Aguasano. (See reporting model on next page.)

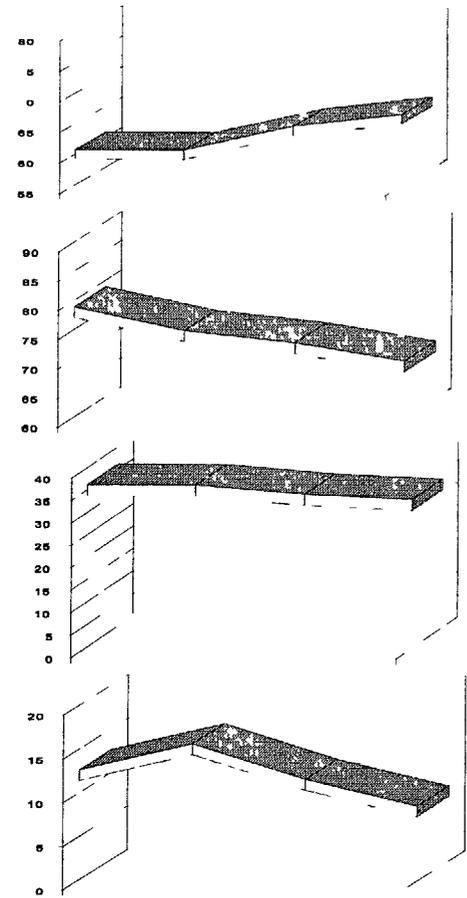
Interpreting Performance Measures: How Do We Know When Things are Working?

But even with good data and more years of it, making sense of it is not obvious. Angel is still perplexed about how to interpret changes in the performance measures, especially if he can't be sure that the organization has caused any of the changes that appear in the measures from year to year. The improvement in outcomes or outputs from one period to the next, in itself, does not provide incontrovertible proof that the organization deserves credit for the change.

Here's the advice that Angel gets in a letter from his friend, Jim, in Tucities:



	Year				Standard
	1991	1993	1995	1997	
Solid Waste Collection					
Resident rating of quality (1-100)	60	60	64	66	80
Resident rating of value for given cost (1-100)	78	74	72	69	80
Missed collections per 10,000 scheduled stops	35	35	33	32	30
Cases of solid waste-born illness reported	12	15	11	8	0





City of Tucson
From the Desk of
Jim Fernandez

Dear Angel,

You've hit on a real problem that no one has a perfect solution for. How do you make sense of the changes you're bound to see in the performance indicators from year to year? We've been at this performance measurement thing for about 3 years now and this is what I've learned.

When outcomes change (up or down) that change can be pinned on your program's or organization's influence if 1) managers are clear about the organizational or programmatic changes that were instituted long enough before measurement to have an impact on the outcomes and outputs being measured - these are the processes, 2) managers understand changes in key inputs and other external circumstances that may affect results and 3) some data can be identified to demonstrate what the outcomes or outputs might have looked like in the absence of the program.

Piecing together a case for giving credit to program operations (or blame, even though we don't use the data to punish staff) is more like police work than social science. Coroners don't have control groups when they are called upon to determine cause of death, but they do have a body of experience (no joke intended) to rely on from tons of other similar cases they or others have seen. Detectives build a case against the suspect, in part, by showing how he has behaved in the past and how no other possible perpetrator could be responsible.

We do something similar when we are confronted with trying to determine the reasons for changes in outputs or outcomes. We hold meetings with our performance measure action task force, inviting staff from relevant programs. Sometimes this means several programs if the outcome that has changed can be affected by different parts of the municipal organization. Here's an example we just finished up last Friday.

We had three data points from our biennial citizen surveys - every other year over 6 years - showing a steady decline in residents' ratings of our parks. They were small declines - from 75 to 73 to 71. Then this year the rating dropped to 65 on the 100-point scale. (The body of experience brought to the case from the suspect's prior behavior.)

Our action steps follow

- 1 First, we had to trust the data. So we asked the manager's office if there was anything different about this survey than those done before? Different method of administration, different way to ask the question about parks, different response rate, different group of residents responding (e.g. more older residents than in the past)?

No. The survey was consistent year after year. We had reliable data.

- 2 Well, were our parks' ratings really bad compared to other similar cities? Not at first. The norm for ratings of parks across the U.S. was about 72 on the 100-point scale according to data published by Miller and Miller. Now our 65 put us in the bottom 25% of all communities whose residents rated parks quality.

- 3 Then, we needed to know if this trend was unique to Tucities or if other municipalities noticed the same trend (the body of experience brought to the case from like cases elsewhere).

We found a few places nearby with citizen ratings for parks. *They were getting better.*

- 4 Then we asked for attendance at our task force meeting by staff representatives from parks and rec, planning, police, public works and transportation to explore any changes in inputs or processes over the last 8 years. (We had to rule out competing causes of the crime.)
- 5 Was there a decline in funding or FTE's - even after adjusting for inflation or number of residents served? Reduction in number of parks per capita? Change in the population being served - like more kids, say, or a change in the type of recreation preferred by residents?

No, to all the questions except the type of recreation that residents wanted. We had no information about that, but no one had heard about Tucities becoming the latest attraction for skateboard enthusiasts or hang gliders - for which we have no facilities. Anyhow, our neighboring cities were getting *better* ratings for parks and attracting similar types of residents.

- 6 What about services. Had we changed the service mix or method over the last 8 years?

Well, the parks and recreation department was pretty much offering the same kind of services. There were no big changes in the last two years, that's for sure. The land use planners, on the other hand, said that in the last two years there was a push to establish small pocket parks in neighborhoods. As a consequence there were quite a few more parks in many areas extending the plan that had begun.

more slowly five years ago. While this seemed like a service enhancement, the police noted that they were getting a large number of calls from many neighbors of these parks complaining of noise and loitering at late hours. This, the cops said, had always been a problem around these pocket parks. Public works staff reported that agreements with neighbors required that they be responsible for maintenance of the parks and so there were quite a few of these parks looking run down. If a bunch more were created in the last two years, we could be causing a real maintenance and public safety nightmare out there.

We felt we had enough to proceed. Here were our action steps:

1. Convene several groups of neighbors of pocket parks for guided discussions about the problem identified by the outcome indicator.
2. Consider budget and personnel implications of special police patrol around the pocket parks.
3. Consider budget and personnel implications of taking over some or all of park maintenance in these small neighborhood parks.
4. Be ready to act quickly if the discussions with neighbors confirm our suspicions and support our proposed actions.

Hope this helps, Angel. When are you going to get e-mail?

You owe me,

Jen

Jim had been more helpful to Angel than Jim had suspected. There were a few key examples in what Jim told him that provided broader principles about performance measures and inspired Angel to make a list of principles that he had gathered from this not-so-long journey into performance measuring.

- One year of data on the best outputs and outcomes don't make a trend. Nor do two years. In fact, it is important to expect to stay with performance measures for several years in order to get the most guidance from them. Without those four points of data, Jim would not have had a credible baseline by which to understand the big decline in park ratings this year.
- Comparisons to other jurisdictions are important. This must be why benchmarking is so popular. We don't know what is tall or what is small without comparing. The rating of 65 on the 100-point scale was close to "good." Isn't a rating of "good" reasonable? From norms about ratings of service delivery in Miller and Miller, it became clear that "good" often is not good enough because residents tend to admire much of what municipal government has to offer.

Reflections on Performance Measurement

Over a beer, Michael Suarez and Angel Vigil are debriefing a few items from tonight's city council meeting.

"Why can't they ever get out of there before midnight?" Michael asks.

"You're a task master, is why," replies Angel.

"You still smarting from all that performance measurement stuff?" Michael asks Angel with a bit of guilt in his voice.

"No. In fact, I came to down right tolerate it. I learned a lot and not just about measurement. I think it gave me a chance to really understand what is happening in this organization. That's got to serve me well."

"Well, I've heard a lot of great things about your work from staff," Michael confesses.

"Why am I always the last to know?" Angel asks.

"Look, Angel, why don't you jot down a bit of what you learned from this whole deal. It won't only help me, but it'll serve as important memory for the organization."

"Okay," Angel warns. "You asked for it."

Here are Angel Vigil's findings expanded.

Principles of Performance Measurement in Local Government

* Performance measurement is about people, not numbers

-The only reason to embark on a performance measuring system is to improve the quality of life of our constituents

* Performance measures do not require some gutless adherence to statistical truths

-We must select the most important performance measures, measures of results, by revisiting our mission or vision. Otherwise we end up measuring what doesn't matter much

-We don't need to feel inhibited by technological inadequacies. Nothing more sophisticated than a hand-drawn spread sheet is required. Good technology is icing

* Performance measures should help us do better with what we set out to do

-We aim everyone at the targets we agree count

* Local government is not alone in the push for performance measuring

-Performance measurement has become a key management tool in the US federal government, education, health care, not-for-profits and business

* The most important performance measures tell us not so much how hard we try, but how well we do

-There is a hierarchy of importance among performance measures. If there is too little time or money to develop a whole system, then just collect outcome measures. Results count the most

* Initiation of a performance measuring system requires that we envision the end before we begin

-We create mechanisms right up front for interpreting and acting upon performance measures when they begin to come in

* Performance measurement requires the right management environment to create meaningful action

-It's impossible to run an effective performance measurement program without the full understanding and budgetary support of top management and elected officials

-We can't expect enthusiasm or even honesty from those charged with gathering the data if managers use results like a hammer To get the program started in the most favorable staff environment, make sure staff can learn from the process but that they are not (at least at first) judged by it

-Include line staff in the selection, measurement, interpretation of and action recommended from measuring organizational performance

* Data don't speak for themselves

-Good detective work is required to determine why trends are what they are

* To understand performance measures we must compare

-We can compare to our own trends from the past or to other communities or organizations

* Performance measures are incomplete without resident opinion

-Government's only bottom line is residents' perception of service quality If trash is collected three times per day, but customers are not satisfied, we still have a trash collection problem

* Some of the best things we ever do are the things we have to do

-Performance measuring doesn't come only from the savvy manager who wants to use data for good management but savvy managers often are compelled to use performance measuring because someone said they had to do it - elected official or someone else holding the purse or power

* If we measure too much, we dissipate our energies and diffuse our focus

-Start with a demonstration project and a few measures But keep in mind the next principle which can compete with the preference for a few key outcome indicators

* You get what you measure

-This is good and bad Surgeons who measure death rates will lower death rates but they will be less attentive to cost savings Educators who focus on standardized test results may have their students achieve higher percentile ranks on tests but drop out rates may increase IRS agents who measure the amount of revenue they extract from taxpayers will get more money but at the same time they lower customer satisfaction ratings, compared to agents more sensitive to taxpayer equity and access

- * Make sure that the most important goals are the ones for which you have outcome indicators

Be flexible enough to permit those indicators to change over time as staff and residents change their priorities, keeping old indicators that may now seem to be out of date and augmenting them with indicators that are more closely aligned with new community visions or organization and program missions

- * We won't necessarily know how to improve the performance we measure, but without the measurements we won't even know if there is anything that needs to be improved

Angel is now the expert on performance measuring that he never wanted to become. Throughout this journey he has learned much about the priorities of the organization and the community. He has learned about what really matters to his staff and because of that, he has become an organizational resource for all kinds of problem solving. His buddy Jim even asked him to run Tucities Tomorrow, the high profile community visioning project for the 2 million population metropolitan area. Angel's reply to Jim, "Give me a week while I envision the end of that project."

At the start of it and at the end of it, keep in mind that we are trying to measure what matters so that, in the long run, we can improve the quality of life of this community's residents and its visitors

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