Measuring the Success of Integrated Justice: A Practical Approach

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Introduction

Justice system organizations began automating in earnest more than 30 years ago. During those early formative years, there was an intrinsic belief in the “miracle of technology” as a cure for all sorts of ills. People were generally in awe of new technology—it got us to the moon and was responsible for many other modern wonders. Surely it could be applied to business problems of rising caseloads, increasing paper flow, and growing complexity in our justice system. The climate was right for technological solutions for every kind of problem.

It was relatively easy to convince funding agencies that automation and computers could improve the justice system; they were equally optimistic about the value of these marvelous new tools. This utopian atmosphere, along with the good working relationships that generally existed between justice organizations and funding bodies, led to the initiation of information system projects with little more than “trust me” as an assurance of success. The prevailing thought was that “to automate was to improve” and it was not necessary to enumerate additional goals for the project or to define measurable criteria for determining if success had been achieved.

It soon became apparent that success with technology projects was much more difficult to achieve than was originally thought. Many projects failed completely; others suffered lengthy delays, huge cost overruns, disappointing performance, unintended negative consequences on internal and interorganizational business processes and service delivery, or premature obsolescence. Only a very small percentage of those pioneering technology efforts could be considered successful by today’s standards. Still, many justice system leaders could declare victory because there were no objective criteria or data to prove otherwise.

The difficulty of achieving success with automation projects in the justice environment was further compounded by the realization that success with computerization within a justice organization was greatly dependent on how well that system interacted with systems outside of the organization. As the integration of justice information became a priority, additional levels of government began participating in integration-related projects, thus requiring better communication and greater accountability.

The realization that technology tools were neither easy to develop nor simple to implement and operate led to greater skepticism of technology initiatives by justice system and other governmental leaders. Funding became more difficult to obtain and greater accountability was demanded. More sophisticated planning and project management methodologies also became necessary.
Over the past 30 years, billions of dollars have been spent on justice-related technology projects. It is now apparent that justice system integration projects must be initiated with clear, realistic, and unambiguous goals that participating justice officials at every level of government can agree to and monitor. Before integration projects are even approved, participants should create performance measures that establish realistic expectations and provide ongoing feedback. This ensures that justice system officials and funding bodies are kept continually informed of project progress and status in reaching goals. Processes also are required to collect and analyze data that support the measures. This document explains how to define and measure the success of justice integration through the development of performance measures.

Why Measure Performance?

Funding bodies have become more wary of technology projects. In an era of diminishing resources, budget analysts are asking about return on investment (ROI) and want to analyze a business case before funding new systems development. The public wants tangible proof that taxpayer dollars are being used responsibly and efficiently. The “trust me” era of funding technology is gone forever. Now, justice officials must be able to answer tougher questions: How will we know if technology projects are on schedule and within budget? How can we tell if a new system really meets the goals of the initial funding request? How will you demonstrate that the integration initiative is a success? Establishing goals and performance measures—and collecting data to support those measures—will help answer these important questions.

Collecting data on the effectiveness of an integration effort is important for a variety of reasons, particularly because information in today’s society provides policymakers and managers with control—and individuals who possess strong supporting data can make the most convincing policy arguments. In addition, this information provides common objectives for everyone to work toward, supports the goal of continual improvement, makes sure that accountability is held for the right things, builds consensus on how to measure the project, and increases the likelihood for success. In short, performance measures help to: 1) build consensus and commitment within the justice community, 2) obtain and allocate resources, 3) plan and manage project execution, and 4) demonstrate success and improve accountability.

1. **Build consensus and commitment within the justice community.** Clear communication is essential to successful integration, and articulating specific and detailed measures of success will help ensure that all justice system leaders share common expectations. Project expectations are often set based upon false assertions, assumptions, or anecdotal information. While “war
stories” can be valuable, they are often nothing more than isolated events. Unfortunately, they are so appealing that some people tend to adopt those single instances as generalizations. In contrast, sound performance measurement demonstrates the sophistication of management systems and processes, and the competence of staff, thereby increasing the confidence of policy leaders and their willingness to support the integration initiative.

2. **Obtain and allocate resources.** One of a manager’s most difficult tasks is to allocate and reallocate limited resources. It is the manager’s responsibility to redistribute resources saved through automation to tasks and assignments that had been underfunded prior to the automation savings in other areas. A successful technology project can result in the redistribution of resources. This task, though, has become more challenging in recent years as resources have dwindled, and is further complicated by the fact that most funding bodies expect justice agencies to perform more efficiently with technology. Funding bodies are no longer easily swayed by flashy presentations and anecdotal data, but are looking for solid evidence that monies allocated for projects will be used wisely. Solid information, built upon measurement systems established at project initiation, is much more convincing. Integration policy leaders can make a stronger case for funding future integration projects if they can provide this performance data.

3. **Plan and manage project execution.** Justice system leaders know that performance data is not only necessary for establishing credibility with funding agencies, but it is also essential for completing projects successfully. Continuous measurement of interim deliverables and project milestones—as well as making midcourse corrections to compensate for cost overruns, schedule slippage, or scope change requests—is the essence of project management. Without performance data, the project manager is working in the dark.

Building performance measures into project plans adds a new level of sophistication to the management of the integration initiative. Policy leaders can compare actual outcomes to predicted outcomes during project execution. Predetermined goals/performance measures shield project leaders from criticism for failure to accomplish goals that never were part of the original project scope.

Because contractors, vendors, developers, and staff need to know what is expected of their products, it is important to define performance measures that may trigger interim and system acceptance payments to contractors. Clearly defined
performance measures provide targets for everyone to attain, make it easier to assess performance, and increase the likelihood of success.

Providing feedback on the status of a project during its execution is often avoided to postpone facing bad news. People are often reluctant to identify problems for fear of failure—and having to report that failure to others. Nevertheless, analyzing information about the progress of a project can help managers resolve issues before they become more serious. A problem cannot be corrected if it is not detected.

Too often, we forget about the value of performance measures in reassuring staff members that their work has had the intended results. Recognizing their contributions is a boon to staff morale and is a great incentive for future productivity.

Performance information also feeds future planning efforts. By analyzing what occurred in the past—what went well and what gaps exist between expected and actual performance—managers are better able to predict the duration and cost of future activities, problems that could arise, etc.

4. **Demonstrate success and improve accountability.** When a project is complete, or even during project execution, it is always helpful to be able to show that it fulfilled the criteria for success that were defined at the outset. Project leaders are able to show clearly and concisely what the project was intended to accomplish, compared to what was actually accomplished. With respect to future funding for additional integration projects, or for maintenance of systems and interfaces that have been developed, the *communication of the success* to project sponsors and funding agencies is almost as important as the success itself. Informing funding bodies and constituents of the successes (and failures) of projects helps establish accountability. Taxpayers feel better about their investments. The agency’s credibility and legitimacy is enhanced with those constituent groups and individuals that it serves.

Over the last decade, the Federal government has enacted new legislation that requires quantifiable objectives to be defined for technology projects undertaken by Federal agencies.¹ More recently, to facilitate

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¹ The *Clinger-Cohen Act of 1996* (Public Law 105-106) encourages Federal agencies to evaluate and adopt best management and acquisition practices, and requires agencies to base decisions about information technology investments on quantitative and qualitative factors to demonstrate how well the expenditures support improvements to agency programs. The *Federal Acquisition Streamlining Act of 1994* (Public Law 103-355) requires agencies to define and monitor cost, schedule, and performance goals for Federal acquisition programs. The *Government Performance and Results Act of 1993* (Public Law 103-62) requires agencies to prepare multiyear strategic plans that describe mission goals and methods for reaching them.
efforts to transform the Federal government to one that is citizen-centered, results-oriented, and market-based, the Office of Management and Budget is developing the Federal Enterprise Architecture, a business-based framework for governmentwide improvement. In addition to the development of business, service component, data, and technical reference models, a performance reference model (PRM) is being designed and is scheduled for release in 2003. The PRM will establish a common set of general performance outputs and measures that agencies will use to achieve much broader program and business goals and objectives. Similarly, many state and local governing bodies have now passed performance-based budgeting initiatives that require agencies to develop and adhere to measurable performance objectives. It is important for project leaders to demonstrate compliance with all laws that are applicable to the integration initiative.

A Method for Measuring Success

While there is a need to articulate why integration projects began and to document their specific objectives, there is also a compelling need to define and measure a project’s level of success in measurable terms.

The following are components involved in measuring a project’s success: a statement of business problem, the definition of goals, and project management through the creation of project, functional, and business objectives.

**Statement of Business Problem.** Technology projects should begin with the identification of a business problem. A business problem may be defined as a process or product that appears to be broken. An example of a justice-related business problem is that wanted felons are escaping detection and slipping through routine police stops because of inadequate information-sharing between criminal justice agencies. Before designing a technology solution to this business problem, justice system leaders must fully understand the nature and causes of the problem. Otherwise, they may implement a technology solution that does little to increase the detection of wanted felons. Improved police access to an automated warrant file, for example, may not solve the problem if the real issue is court delay in entering warrants into the system. The next issue becomes how to relate this business problem to a goal of a criminal justice system.

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2 See [www.feapmo.gov](http://www.feapmo.gov) for more information on the Federal Enterprise Architecture Program Management Office (FEAPMO) and the Performance Reference Model.
Goals. Goals are defined as broad statements of interest with continuing intended results. They define the day-to-day business of justice organizations. Anything that impedes the attainment of justice system goals could be considered a business problem. For example, enhancing public safety is a universal goal of the justice system. The inability to identify wanted felons increases the likelihood of crimes being committed, which reduces the safety of the public.

Project Management through Creation of Objectives. Once a business problem is understood in the light of justice system goals, it is possible to design a solution. Often the solution requires the creation or modification of software applications and business processes. The complexity of this work necessitates a rigorous and formal process—project management. One of the first steps in project management is to develop objectives that relate to the business problem being addressed and an organizational goal that is being affected. Project managers should create objectives at these three levels:

- Project objectives
- Functional objectives
- Business objectives

Project Objectives. Project objectives relate to the execution of a project plan. The project is considered successful if it is completed: 1) on time, 2) within budget, and 3) according to specifications. A project manager could suggest that the project is successful when these three objectives are satisfied. In fact, there are very skilled project managers who perform the exclusive task of ensuring that these project objectives are met.

To address the problem of felons eluding detection during routine police checks and enhancing the goal of public safety by closing those information system loopholes, system managers propose a project that will share warrant information from courts with multiple law enforcement agencies within the jurisdiction. The premise of the “warrant information exchange project” is that the more accurate information that is exchanged, the more likely law enforcement agencies will have all of the relevant and timely information to detect felons with outstanding warrants. A plan is developed that specifies project objectives in terms of tasks, schedules, staff assignments, resources, and deliverables. Although developing the project objectives is a necessary step in the successful completion of a project, it is insufficient in measuring the overall success of a project. The question remains, however, whether the product actually functions as it was designed.
**Functional Objectives.** Functional objectives relate to the performance of project products. Although a project may be completed according to project objectives (i.e., on time, within budget, and according to specifications), the question remains about whether it will perform according to the specified functions. Even if project products meet specifications, they may not function adequately when implemented because the specifications were flawed, the applications do not fit well with existing business processes, or inaccurate assumptions were made about the availability of data.

The functional objectives of the “warrant information exchange project” are to adapt existing infrastructure, applications, and interfaces to provide direct access by law enforcement officers to court warrants. These objectives will be satisfied if law enforcement officers are able to access accurate warrant information in a timely manner. Although it is important that software products do the work that was intended, this does not ensure project success.

**Business Objectives.** The ultimate collective measure of success is in accomplishing the goals of an organization and solving the problems that created a need for the project. Despite the quality of project management, system design, and software engineering, a project is a failure if it has not resolved the business issues that led to its initiation.

To effectively evaluate if the “warrant information exchange project” was successful with respect to satisfying business objectives, the following questions must be answered: Why was the project developed to begin with? What business process was failing? How will we know when the number of felons avoiding detection during police stops has been reduced? Only when business objectives can be empirically documented can managers say that the project has been a success or failure in satisfying the goal of “Enhancing Public Safety” and in resolving the original business problem.

The next question is most important: How do we know if a business problem has been solved or, in other words, that a business objective has been achieved? The answer is in designing business objectives in such a way that they can be measured. The following section details how to develop measurable business objectives incrementally for systems that share justice information.
Developing Business Objectives as Performance Measures

Integrated justice systems can be used to solve many business problems and satisfy a variety of goals that include, but are not limited to:

- Enhancing Public Safety
- Improving the Accountability of the Justice System to the General Public
- Improving Public Trust and Confidence in the Justice System
- Improving Caseflow Management
- Improving Staff Efficiencies
- Enhancing the Quality of Decisionmaking within the Justice System

Each of the goals must be associated with measurable business objectives, if success or failure is to be attributed to an integrated justice project. Building these measurable business objectives is an incremental process that begins with the identification of a business problem and the related justice system goal. The problem might be that it takes too long to process an individual through the criminal justice system, which runs counter to the goal of “Improving Caseflow Management.” Then the construction of measurable business objectives for the project gets increasingly specific—the more specific, the more reliable the measure. This process includes six steps:

1. Identify a **basic measure**
2. Indicate **direction** of the measure
3. Identify the **object** of the measure
4. Identify the expected **value** of the measure
5. Identify **where** the measurement will occur
6. Identify **when** the measure will be obtained
<table>
<thead>
<tr>
<th>Step 1</th>
<th>Identify a <strong>basic measure</strong>  e.g., Time to disposition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Measure: Time to disposition</td>
</tr>
</tbody>
</table>

Step 1 identifies a **basic measure**. *Time to disposition* can be measured empirically and relates directly to how long it takes to process an individual through the justice system. Clearly, other measures also could be considered, e.g., time from arrest to filing or time from disposition to discharge from incarceration or supervision.

<table>
<thead>
<tr>
<th>Step 2</th>
<th>Indicate <strong>direction</strong> of the measure  e.g., Reduce</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Measure: Reduce the time to disposition</td>
</tr>
</tbody>
</table>

Step 2 indicates the **direction** of the basic measure. Sometimes the direction is not necessary if the measure will obtain a specific level by a specific time (e.g., an average of 6 months by September 1, 2003).

<table>
<thead>
<tr>
<th>Step 3</th>
<th>Identify the <strong>object</strong> of the measure  e.g., Felony cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Measure: Reduce the time to disposition of felony cases</td>
</tr>
</tbody>
</table>

Step 3 identifies the **object** of the measure. This must be as specific as possible—what are you measuring against, felonies, misdemeanors, or traffic cases? A different result might be expected for different objectives.

<table>
<thead>
<tr>
<th>Step 4</th>
<th>Identify the expected <strong>value</strong> of the measure  e.g., 6 months</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Actual Measure: Reduce the time to disposition of felony cases to an average of 6 months</td>
</tr>
</tbody>
</table>

Step 4 identifies the expected **value** of the measure to be obtained. This will be compared to the actual value that is achieved.
### Step 5
Identify **where** the measurement will occur e.g., Statewide

Actual Measure: Reduce the time to disposition of felony cases to an average of 6 months statewide

Step 5 identifies **where** you will be measuring the objective, such as statewide.

### Step 6
Identify **when** the measure will be obtained e.g., 12 months

Actual Measure: Reduce the time to disposition of felony cases to an average of 6 months statewide within the first 12 months after implementation

Step 6 identifies **when** the measure should be obtained. Funding bodies that are expecting returns on investment are also expecting that return (whether in money or another outcome) by a specific date. The actual delivery may be earlier than that date, or slightly later, but there must be a sustainable end. When establishing these dates, it is important to give the project some time to mature (i.e., recover from the dip in productivity that comes with the introduction of any new technology). Results are generally expected within 9–15 months after initial implementation.

The following table provides an additional example of the development of a **measurable business objective** that deals with linking court dispositions to arrest incidents. In this example, the business objective will be to increase the percentage of court dispositions that match to an arrest incident. Law enforcement and the courts agree that for a variety of reasons, court dispositions are not posted to arrest incidents at the criminal history repository. This creates business problems related to officer safety, erroneously approved handgun purchases, background screening for positions of trust, etc., which are clearly related to satisfying the goal of “Enhancing Public Safety.”
<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td>Identify a basic measure</td>
<td>e.g., Percentage of dispositions that match with arrests</td>
</tr>
<tr>
<td>Step 2</td>
<td>Indicate direction of measure</td>
<td>e.g., Increase</td>
</tr>
<tr>
<td>Step 3</td>
<td>Identify the object of the measure</td>
<td>e.g., Felony cases</td>
</tr>
<tr>
<td>Step 4</td>
<td>Identify the expected value of the measure</td>
<td>e.g., 80%</td>
</tr>
<tr>
<td>Step 5</td>
<td>Identify where the measurement will occur</td>
<td>e.g., Statewide</td>
</tr>
<tr>
<td>Step 6</td>
<td>Identify when the measure will be obtained</td>
<td>e.g., By 6/30/03</td>
</tr>
</tbody>
</table>

Actual Measure: Increase the percentage of court dispositions that match to an arrest incident in felony cases to 80% statewide by June 30, 2003

These business objectives are both measurable and testable, and relate to solving specific business problems and attaining justice system goals. If the time to disposition of felony cases has been reduced to an average of 6 months statewide within 12 months after project completion, then the project is a success. If the percent of court dispositions that match to an arrest incident in felony cases is increased to 80% statewide by June 30, 2003, then that project also can be considered a success.

There will be deviations within measures—sometimes the actual measures will be close to the measurable business objectives and sometimes the deviation will be large. Statistical analysis can determine if the deviations are significant. More likely, however, the funding body or policy board will make this determination. For example, if the percent of court dispositions matched to an arrest is only 79% rather than 80%, someone will have to make a decision about whether the project has been successful.

The previous examples serve to illustrate the basic process to follow in developing measurable objectives for a project or program. Since most projects usually have multiple goals and objectives, successfully completing one of them does not automatically equate to declaring a success for the overall project. Some measures may be deemed more important than others, and may be given more weight.
During the rush to create measurable objectives, the importance of measuring entirely new capabilities is often overlooked. It is important to ask: What can be done today that couldn’t be accomplished before automation? What new levels of service can be provided? What new information is available as a result of integration? What additional benefits have been realized that are not related to solving the original business problem? The answers may provide insight into other ways to document and measure success that might have been impractical in the past.

Sample Goals and Measurable Business Objectives

The following section identifies some of the major goals of an integrated criminal justice system, and some possible measurable business objectives to support them. It is not an exhaustive list, but provides an opportunity to see how business objectives can be associated with specific business problems and more general goals. These shortened business objectives only reflect the first two steps of the process discussed above and illustrate some of the basic measures that can be developed to fit local legal, political, and law enforcement cultures.

Enhancing Public Safety. Enhancing public safety is usually a high-priority goal in an integrated criminal justice system, but is difficult to measure quantitatively. Many of the measurable business objectives must be surrogate measures or factors likely to improve public safety, rather than direct measures of improved public safety. Measurable business objectives for this goal could include:

- Increase the percentage of court dispositions that can be matched to an arrest—this will improve the quality of the computerized criminal history records
- Decrease the average response time to establish a positive identification following an arrest
- Reduce the number of incidents of criminal records being associated with the wrong person
- Reduce recidivism
- Decrease the amount of time it takes to serve a warrant
- Reduce the fear of crime in target neighborhoods

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Improving the Accountability of the Justice System to the General Public. Integrated systems must improve accountability to the public and funding bodies. Once again, success in reaching this goal must be measured through surrogate measures, such as:

- Increase the number and variety of reports available to the public on the Internet
- Increase the number of hits on the Criminal Justice Information System (CJIS) Web pages
- Increase the number of hours the general public can view CJIS information on the Internet

Improving Public Trust and Confidence in the Justice System. The criminal justice system is most effective when it has the trust and confidence of the general public and funding bodies. In the absence of this support, justice agencies cannot effectively perform one of their primary functions of enhancing public safety. Some measures that can indicate success in attaining this goal are as follows:

- Reduce the amount of time it takes users of the integrated justice system to respond to a request from the public
- Reduce the wait time for citizens on the public nonemergency number
- Reduce the time it takes to complete a criminal history background check
- Increase the percentage of the public that is satisfied that local law enforcement is effectively and efficiently controlling and reducing crime
- Increase the percentage of the public that is satisfied that law enforcement is identifying criminals, and that prosecuting attorneys are securing convictions in court
- Reduce the number of civilian complaints against local law enforcement
Improving Caseflow Management. An important part of an integrated criminal justice system is its ability to resolve cases efficiently. The old adage that “justice delayed is justice denied” is the foundation of modern caseflow management. The following are some measurable objectives that can indicate whether the basic goal of improving caseflow management has been attained:

- Reduce the number of continuances per case that result from scheduling conflicts between the courts, law enforcement, and prosecution
- Reduce the number of cases without a next scheduled event
- Reduce the average number of days or hours from arrest to arraignment
- Reduce the average time a defendant is held while waiting for a bond decision
- Reduce the number of days it takes to process cases from arrest to disposition
- Reduce the time it takes for correctional facility intake

Improving Staff Efficiency. Although ensuring public safety is a primary goal of an integrated CJIS, funding bodies and the public also expect automation to yield improved staff efficiency. The extent to which staff savings are returned to the general fund or reallocated to address other issues is a local decision. Nonetheless, the following business measures may indicate success or failure:

- Reduce the number of hours that staff spends entering data electronically
- Reduce the costs of copying documents for justice organizations
- Reduce the number of hours spent filing documents manually
- Reduce the number of hours spent searching other governmental databases
- Increase the number of law enforcement personnel performing community policing tasks, instead of administrative tasks
- Increase the number of electronic data transfers between justice agencies
Enhancing the Quality of Decisionmaking within the Justice System. Law enforcement personnel, probation officers, parole officers, judges, correctional staff, public defenders, and prosecuting attorneys depend on high-quality information to render appropriate decisions. Integrated systems should improve the quality and timeliness of the information that is available to these decisionmakers. The logical extension of better information is improved decisions. The quality of the data is reflected in accuracy, timeliness, relevance, and completeness. Since it is difficult to measure the quality of a decision, many of the following business objectives are surrogate measures:

- Reduce the number of false arrests because of inaccurate information
- Reduce the amount of missing information in criminal justice databases
- Reduce the number of corrections needed in databases maintained by CJIS agencies
- Decrease the number of warrants that never get entered into the state registry
- Increase the number of query hits on each agency database
- Reduce the number of hours it takes to enter a court disposition into the state criminal history repository

Collecting Data to Support the Measures

Creating measurable business objectives with the six-step method discussed in this document ensures that success or failure of a project can be determined objectively. In reality, success is often a matter of degree, rather than a yes or no question. In addition to targets established in the business objectives, other comparisons can provide new perspectives on the value of integration.

Although collecting data is a critical task, it often can be time-consuming. Consequently, it is important to understand and identify the data collection methods associated with each performance measure before it is implemented to effectively allocate the staff resources needed for this task. A jurisdiction must determine if the cost (in time and resources) is worth the gain when choosing a data collection method and should consider alternative methods.
• **Baseline** – It is difficult to determine if a new system is successful if an agency does not know the value of basic measures before a new program is initiated. For example, increasing disposition matching with arrests to 80 percent means much more if that rate was 40 percent before project initiation than it does if the rate was 70 percent. The project team should compile statistics about the basic measures so the magnitude of process improvements can be documented.

• **Benchmark** – It is important to compare an organization’s practices, processes, or products against those who are doing it well in other jurisdictions (or from within the existing jurisdiction). This process measures best practice performance and helps determine “where you can be” with the new program. This approach also can be quantitative—for example, our state was 39th in rate of disposition matching with arrests, and since the implementation of the new system, now is 12th.

• **Trend analysis** – Another approach is to compile and compare the results of performance measurement over time. Gathering information on performance through the use of measurable objectives is not a one-time exercise (i.e., right before a budget hearing), but it is something that should be tracked and refined continually over a period of months and years.

• **Surveys** – Surveys can provide an alternative method of acquiring information and determining how well the requirements are being satisfied. For example, one objective may be to reduce the fear of crime in a targeted neighborhood. Multiple surveys must be issued over a period of time to determine if this objective has been met. The survey must be carefully drafted and distributed to a representative sample of the community in order to be valid. As few agencies have significant experience conducting surveys, the jurisdiction may consider obtaining outside assistance with this process.
Displaying the Results

Once evaluation data have been gathered and analyzed, it is important to publish and display the information. Goals and objectives may not be reached immediately after completion of the project for a variety of reasons, but often the delay is due to people and change management issues that are difficult to overcome. People behave based on how they are measured, and publishing the results of the evaluation will help to change local culture and encourage users to attain the measures and goals that have been established.

The key to displaying the results is to convert raw data into useable information. Delivering truckloads of output that is never read accomplishes very little. The following suggestions may be useful in converting raw data into useable information:

- **Convert data from words to pictures and graphs when possible.** People respond to visual images—as long as they are simple and intuitive. One state routinely illustrates the progress of a project by using a map, where green counties indicate jurisdictions that have implemented electronic warrants, and yellow counties indicate those where implementation is still in progress.

- **Use color to highlight the most important points.** One state distributes a monthly progress report that lists each county and the percentage of felony court dispositions that are matched to arrests in the criminal history repository. Counties that meet the state standard are coded green; those that are significantly exceeding the current standard are coded blue; those that are making significant progress toward satisfying the state standard are coded yellow; and those that need significant help in attaining the goals are coded red. No one wants to be coded red because of the associated public safety implications.

- **Publish the output regularly.** Users become dependent on feedback in order to improve. Information that is out of sight is also out of mind.

- **Do not overwhelm the audience with too much information—keep results short and simple.** A line graph can present a lot of information in a simple format. On a graph that superimposes a trend line and standards on the actual monthly disposition-matching rate, the user can see how the actual disposition rates are changing over time, where those rates are likely to be in 6 months, and how the actual rate compares to the standard.
Developing Performance Measures: Pitfalls to Avoid

Although the use of performance measures can help a justice organization determine its current status, decide where it should be, help it resolve problems, and assist in achieving its goals, caution is necessary. The following are common pitfalls to avoid:

- **Too complex.** If the measure is too complex, it will be difficult to understand and explain, making it nearly impossible to ascertain with confidence whether the project was a success. The simpler and more straightforward a measure can be, the better.

- **Too many measures.** As with anything in life, it is possible to have too much of a good thing. Develop a small number of relevant measures that best reflect a particular agency’s progress.

- **Statistics that require special data collection.** Compile statistics from data that is routinely collected. Measures based on operational data are likely to be more reliable, because users need it to complete their daily work. In addition, if it is difficult or burdensome to collect complete, accurate, and timely information about a measure, the chance of being able to evaluate the measure effectively is small. Choose measures for which reliable data are available.

- **Measures that are collected and reported too quickly and without explanation.** The display of measurement data may result in “cultural” issues regarding accountability. Jurisdictions may have never been evaluated before this effort, and the reality of seeing performance information and being compared to other jurisdictions can be quite a shock. Justice system leaders must prepare their organizations in advance. The incremental release of new performance information also may help.

- **Measures that are developed, collected, and reported without stakeholder input.** Acceptance of performance measures by the user community is critical. One way to ensure acceptance is to involve users and key stakeholders in their development, implementation, and assessment. After all, stakeholders usually are involved in the development of the organization’s goals and objectives during the strategic planning process; their input in identifying key performance measures can be invaluable.
• **Assumptions.** It is common to review an individual result and assume that it applies to the entire project. Use the outputs from all the performance measures to determine overall project status, without making assumptions based on a single incident or anomaly. Although war stories are useful in developing testable theories, they can produce dangerous conclusions when not put to an empirical test.

• **Spurious relationships.** A spurious relationship is one where there appears to be a conclusive explanation for an event, but it turns out to be purely coincidental. For example, an increase in juvenile crime might be associated with an increase in the number of delinquent juveniles, when in fact the explanation might better be an increase in the reporting of juvenile crimes. Researchers must be cognizant of potential spurious relationships and test all possible alternatives fully.

**Developing Performance Measures: Tips for Success**

Now that there is an understanding of why performance is measured, how to develop and display the metrics, and what to avoid, here are some tips for developing meaningful performance measures:

• **Identify items that should be measured.** Identify goals and performance measures that are important to the overall business strategy of the organization, and that can and should be measured. Funding bodies, constituents, and staff want measures that accurately reflect effectiveness and efficiency and that relate to performance improvement goals. A goal of enhancing public safety might be measured by “reducing the amount of time it takes to produce and serve orders of protection.”

• **Identify items that can’t be measured.** Do not try to measure the unmeasurable. Some goals and objectives are subjective or are not easily quantifiable. For example, trying to measure the general public’s satisfaction with the courts may be a futile effort. A large percentage of the public has not had any significant contact with the courts and, therefore, issuing a customer satisfaction survey may produce little, if any, meaningful results. Time would be better spent concentrating on objectives that are accepted and more easily measured. Surrogate measures are another alternative.

• **Pilot the measures.** Before the measures are used to judge whether an agency has improved its performance or become more efficient, they should be tested and evaluated. Although performance measures should be reviewed and updated periodi-
cally, an additional pilot period will allow feedback and improvement before they are fully implemented.

- **Measure the integrity, quality, and reliability of the data.** The old saying, “garbage in, garbage out” applies to the data used to evaluate the success of a performance measure. The data must be complete, accurate, and timely—or an agency will draw erroneous conclusions that may lead to inappropriate decisions.

- **Evaluate the validity of the measures.** Does the measure gauge what was intended to be measured? Nothing changes individual performance better than measuring it, and improper measures may cause staff to expend their energy on the wrong things. For example, one objective may be to reduce the wait time for the public on the nonemergency phone lines. The staff may become so focused on quickly answering the calls that data quality is diminished and overall customer service is affected because callers feel like they are rushed when they report an incident. Performance measures must reflect all of the agency’s short- and long-term business goals and objectives.

- **Use Surrogate Measures.** In some cases, it may not be possible or cost-effective to measure the most important outcome, so it may be necessary to substitute a surrogate measure. A surrogate measure should use other quantifiable data that relates as closely as possible to the goal. For example, a general goal of a police department may be “Improve public trust and confidence.” In order to effectively gauge its progress toward this goal, the police department may develop the following business objective: “To increase citizen satisfaction with departmental services to 80% in 2003.” The most straightforward way to measure this goal is via customer surveys over time; however, this could become too time-consuming and expensive to be practical. Possible surrogate measures might be: a) time spent by citizens on “hold” on the public nonemergency number, or b) the number of citizen complaints received. The outputs of the surrogate measures do not definitively determine if customers are more satisfied, but may give a partial indication of improvement. If the number of complaints is decreasing and hold time is reduced, perhaps it can be assumed that satisfaction is increasing, though other factors should be considered. The use of surrogate measures may be a practical way to provide evidence of progress.
Conclusion

The role of performance measures to effective project management is invaluable in many ways. Performance measures:

- Help focus the project or program to test fundamental assumptions
- Specify long- and short-term milestones so that performance can be continually assessed and so that mid-course corrections can be made before the project gets off-course
- Identifies opportunities for reengineering

To be truly effective, the measures need to be piloted, modified based on feedback, and reassessed after periods of time. They must be comprehensive enough to adequately reflect the agency’s short-term as well as long-term goals. It is then important to widely distribute the outputs from these measures, which detail the status of the project, to various audiences: staff, relevant constituent groups, and funding bodies. Also, recognize that everything cannot or should not be measured. Some goals and objectives are by definition subjective, whereby recognized standards have not been established. But do not overlook the importance of measuring entirely new capabilities or functions that were not practical before the automation, and use that information as supplemental to the more convincing and reliable measurable business objectives discussed in this document.

In summary, the success of integrated justice information system projects can be measured in a variety of ways and using a variety of methods. Implementing performance measures and integrating them into the overall system allows managers to base their decisions on quantifiable data, rather than past experiences or assumptions. Although anecdotal data may still be useful, it should be relied upon more for symbolic value than as a primary indicator of success.

Effective performance measures can arm the manager with the information needed to improve the agency’s performance and programs, and can provide a standard way to report progress to funding bodies.

Funding bodies, constituents, and staff are looking for measures that accurately reflect the effectiveness and efficiency of the organization and that advance the overall performance improvement goals. System improvements cannot be fully realized in the absence of reliable measurements.