# NINETEENTH JUDICIAL CIRCUIT
LAKE COUNTY
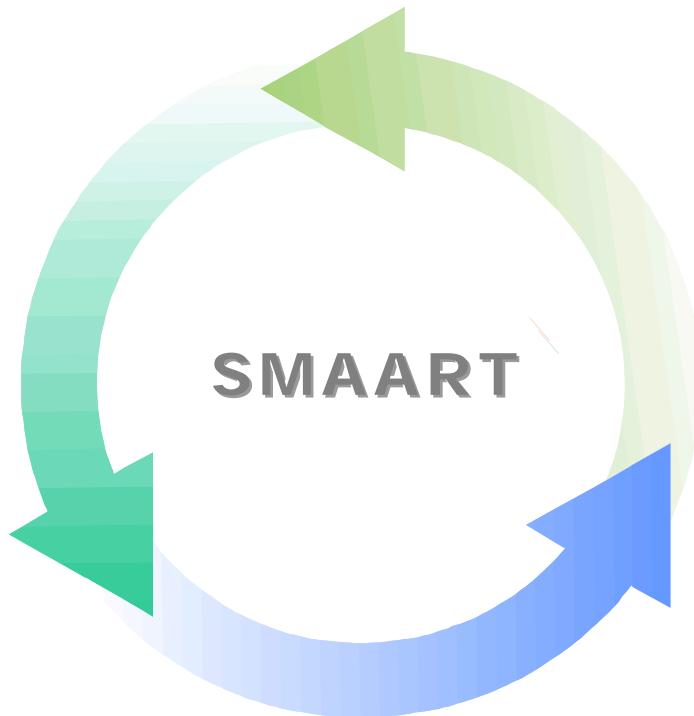
SMAART

A GUIDE FOR
PERFORMANCE MEASUREMENT

ADMINISTRATIVE OFFICE OF THE NINETEENTH JUDICIAL CIRCUIT

Updated December, 2003

ABSTRACT

Since the Spring of 2000, the SMAART performance measurement process has assisted 19th Judicial Circuit staff members in determining whether we are achieving the Court's vision and meeting our strategies and standards as an organization. This performance measurement process has increased the insight of our operations and helped us to make improved judgments about the effectiveness of Court programs, staff functions and how we allocate funding as based on the Strategic Plan. By collecting and analyzing both statistical and qualitative information from our organization's programs, the SMAART performance measurement process improves the planning and evaluating of the Court's operations and use of resources.

Our most recent version of SMAART incorporates a **balanced scorecard framework** for the whole organization with the **program evaluation component** that addresses the budget impact of programs, client/customer satisfaction and the quality of our services, internal efficiency and processes, and the future change and development of the organization as impacted by the programs and initiatives. Our SMAART Team is responsible for overcoming the challenges to performance measurement and the ongoing training, coordination, and refinement of SMAART efforts in the Courts under the guidance of our Chief Judge, Margaret Mullen and Executive Director Robert Zastany.

I NTRODUCTION

The secret of success is not predicting the future, it is creating an organization that will thrive in a future that cannot be predicted.
                                                                        -Michael Hammer

In the Spring of 2000, the 19th Judicial Circuit began to utilize SMAART as a performance measurement process in order to increase the insight of our operations and make the best judgment about the effectiveness of Court programs, staff functions and how we allocate funding. Although the initial efforts proved successful, it is again time for refinement.

As the Court's emphasis is focused on continuous improvement, the SMAART cycle of performance measurement supports this vision by setting, pursuing, evaluating, achieving and/or adjusting our programs, processes, and staff functions. The acronym, **S M A A R T ,** stands for: **S**pecific (*outcome-based goals/standards/targets of achievement*); **M**easurable (*honest measurers – not abstract or subjective*); **A**ggressive yet **A**chievable (*push the envelope but be realistic*); **R**elevant (directly relevant to the challenge at hand – goals, standards, targets), **T**ime-sensitive (*closure – target dates and not always calendar/budget year based*).

Challenges to the first versions of SMAART included a lack of: access to ample statistical information needed for analysis, buy-in of the program from staff members, the acceptance of change by staff members, clarity of the use of the tool, explanation of the applicability/practicality of the instrument to each initiative, and communicating the results and importance of the SMAART program to all levels of staff. The organization has also recently faced the increased challenges of shrinking budget in 2001, space/facilities constraints and County reorganizations and restructuring. Each of these issues has affected the implementation of a performance measurement process in the Courts and has encouraged us to form a SMAART Team to address improving the training and ongoing practical application of SMAART.

The SMAART process provides an opportunity for the 19th Judicial Circuit to face these challenges with increased effectiveness, alertness, focus and flexibility. Each Division and Core Support Unit has created strategic plans in accordance with the Court's Strategic Plan. We measure the performance of the strategy developed from these plans with SMAART in order for an accurate view of how they fit into the larger

picture of the 19th Judicial Circuit. In an effort to move from a task-focus to a strategy-focus on the future needs and challenges of the Courts, we have incorporated an organizational balanced scorecard component into SMAART along with the program evaluation aspect. We anticipate that the revisions will provide for better communication of our Court programs and their success allowing Divisions and units, to see how each is attributing toward the Court's Strategic Plan.   SMAART allows employees of all levels to share in this process and take responsibility for the quality and rebuilding of the organization's programs.

Resources from various organizations were consulted for the revisions to our SMAART program.   We appreciate the information contributed. These external agencies included:

- ➢ Arizona Governor's Office of Strategic Planning and Budgeting
- ➢ Department of Justice/Bureau of Justice Assistance Evaluation Web site
- ➢ Florida Department of Corrections
- ➢ Government Performance and Results Act of 1993
- ➢ Balanced Scorecard Institute
- ➢ Insightformation, Inc.
- ➢ International City/County Management Association (ICMA)
- ➢ Kansas Department of Corrections
- ➢ National Association of Counties (NACo)
- ➢ National Association of Court Management (NACM)
- ➢ National Center for State Courts (NCSC)
- ➢ Peoria County, Illinois
- ➢ San Diego County Superior Court
- ➢ Sherwood Consulting (Williamsburg, Virginia)
- ➢ Subordinate Courts of Singapore
- ➢ U.S. Bankruptcy Court, Baltimore, Maryland

Questions regarding our SMAART Performance Measurement Program can be directed to Robert A. Zastany, Executive Director, or Patrice L. Evans, Business Process Analyst, at:

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PERFORMANCE MEASUREMENT

SMAART closely follows with the Government Performance and Results Act of 1993 (P.L. 103-62) imposed federally and the Managing For Results programs taken on by federal agencies, some states and local governments, and other nations. Approaches to performance measurement have been utilized since the 1940s by federal, state and local governments in some form or another. The initial methods focused mainly on financial matters and prioritizing government programs with the annual budget process towards fiscal accountability in the use of public resources. Today, performance measurement takes this concept further to include customer-service focus towards the efficient and effective utilization of public funds and the impact on the public.

The **purpose** of the SMAART performance measurement process is to **provide a tool of performance measurement for the 19th Judicial Circuit in order to assess what do we do and how do we do it.**

The **goal** of SMAART is **to improve the accountability, resource allocation, future planning, decision-making, and communication of the 19th Judicial Circuit through the performance measurement of the Court's programs.**

The SMAART performance measurement process is two–fold and should be utilized to assist judicial staff members in determining whether we are achieving the Court's vision and meeting our strategic goals as an organization. The organization's **balanced scorecard framework** of SMAART comes from the work of Kaplan and Norton from Harvard Business School. The **program evaluation component** addresses the assessment of individual programs and initiatives in the Courts and provides data for the scorecard.

By collecting and analyzing both statistical and qualitative information from programs of the 19th Judicial Circuit, the SMAART performance measurement process improves the planning, monitoring and evaluating of the Court's operations and use of resources. By aggregating and reporting data on the Court's organizational scorecard, the SMAART process communicates performance to all staff providing the information to make improved and expedited decision-making, innovative programming, and better resource allocation at all levels.

The SMAART balanced scorecard framework links the Trial Court Performance Standards of our Court Strategic Plan to the areas of performance measures most important to the organization. An electronic scorecard will be available to all staff members daily reporting the status of our organization's 16 indicators (see Appendix A).   These 16 indicators are being measured as determined by staff from all divisions of the organization with members of the SMAART Team.   The scorecard indicates how the 16 areas are performing on a daily, weekly, or quarterly, or semi-annual basis providing immediate communication to the executive director and staff at all levels. The scorecard assists us in identifying where we may need to investigate our functions more thoroughly.   The data for the 16 measures are actually collected by staff within each Division of the organization and in each of their unit programs. The data is then aggregated for publication on the Scorecard. The developing and collecting of program data by staff makes up the ongoing program evaluation process for the Courts.

The SMAART program evaluation process takes the perspectives of financial, customers, internal processes, and future change and development as cause and effect for the long and short-term performance of our programs (see Appendix B).   In addition to being reported on the organization scorecard, the data from units and programs are reported on SMAART forms yearly to present the impact of the programs and summarize whether they are meeting their goals and objectives.   This aspect of SMAART assesses why our programs are performing the way they are and is useful for ongoing resource assessment, special data requests, State or County budget position papers, and information for application for grant funding.

PRACTICAL APPLICATION OF SMAART

In order for the successful completion of the SMAART process for this organization, the following tasks will need to be completed by staff members:

- ✓ Consistently collect data on all programs/initiatives.
- ✓ Analyze program data as scheduled.
- ✓ Report data as scheduled to the SMAART scorecard designee.
- ✓ Complete SMAART Form for programs annually.
- ✓ Utilize SMAART results in daily decision-making.

The following tasks will need to be completed by members of the SMAART Team:

- ✓ Communicate data as scheduled to all staff via the Organization's Balanced Scorecard on the Courts Daily Bulletin.
- ✓ Continuously refine and improve the SMAART process.

The SMAART Team has been tasked with refining the SMAART Report Form (see Appendix B) for clarity and training staff members on its application. The most current SMAART Program Evaluation Report Form will be used to report the results of program evaluations in the Courts each month of May and will consist of the following components:

Guidelines for Page 1:

- ➢ The **DESCRIPTION** of the program including its goals.
- ➢ The **DIVISION** the program was initiated in.
- ➢ The **DATE** the report is being drafted.

Finance/Budget and Customers Perspectives:

- ➢ **WHAT IS MEASURED**: The indicators, inputs, and outputs used to measure the program (see Appendix C for examples).
- ➢ **METHODS OF MEASUREMENT:** The methods used to measure the units of the program and the equation or comparison method utilized (see Appendix D for examples).
- ➢ **RESULTS OF PAST AND CURRENT MEASUREMENTS:** What did the previous and current analyses show?

➢ The **TARGET FOR NEXT MEASUREMENT**: The statistical or qualitative goal, benchmark or standard desired for the program (see Appendix E for examples).

Guidelines for Page 2:

Internal Processes Perspective:

➢ What **CHANGES** were initiated since the last report? Did internal processes change? Do processes take longer or shorter with more or less steps? Are more or less people/agencies involved in the processes?

➢ What **RESOURCES** were utilized to make these changes? How much time, personnel, technology and money did it take to make the changes? Did the changes incorporate resources from other units, departments or agencies?

➢ What were the **EFFECTS** of the changes, both positive and negative? Were the changes for the better of the program or organization? Why or why not?

Future Program Change and Development Perspective:

➢ What **CHANGES** are proposed? What internal processes will be changed?

➢ What **RESOURCES** will be needed? How much time, personnel, technology and money are anticipated to make these changes? What collaboration will be needed with other units, department or agencies?

➢ What is the potential **IMPACT**? What are the intended effects of the changes on the program and organization?

THINGS TO REMEMBER WHEN GATHERING AND ANALYZING DATA

Data are collected and analyzed for each measure to determine if and how the goals and objectives are being met. It is easy for this step of the process to get out of hand due to enormous amounts of data and the use of technology.   The following principles are key to maintaining a balanced approach.

➢ *KEEP IT FOCUSED*. Make sure that the correct and only the correct data are being captured. Avoid tangential compilations and make sure other data does not creep into your data collection efforts.

➢ *KEEP IT FLEXIBLE*.   Any one system of collection of data isn't necessarily right or wrong – sometimes manual systems are necessary and cost effective.

➢ *KEEP IT MEANINGFUL*. Use the K.I.S.S. method – basics are solid and easy to understand. If it takes more time to collect the data then to do the job, the process must change.

➢ *KEEP IT CONSISTENT*. We need to keep apples with apples and apply a constant definition to the data collection effort.

Data analysis in the measurement of performance is the process of converting raw data into information and knowledge. The data having been collected are processed and synthesized so that informed assumptions and generalizations can be made about what happened or is happening. This information and the process are recorded on the SMAART Report forms and our balanced scorecard. **We do not expect our findings to always be positive or successful. The SMAART performance measurement process produces valuable information so we can adjust and fine tune our efforts or redirect our resources to more meaningful efforts in support of the Court's Strategic Plan.**

BENEFITS OF SMAART RESULTS

The information produced from the **SMAART** process should be used for various things:

➢ *MAKE RESOURCE ALLOCATION DECISIONS*. It is important that we link our resources to our Court's Strategic Plan, Division and Unit strategic plans, and to our budget process. Limited resources requires us to be more informed in our decision making process.

➢ *CONDUCT EMPLOYEE EVALUATIONS*. This process can and should be used where practical to assist in annual performance reviews.

➢ *IMPROVE PROCESSES.* This data should assist our organization to implement more efficient and effective improvements.

➢ *ADJUST GOALS, OBJECTIVES AND/OR MEASURES*. This level of measurement data needs to be feed back into the planning process to ensure that our organization maintains a correct direction and level of performance.

➢ *DOCUMENT ACCOMPLISHMENTS*. This data can be used to document employee achievement, organizational success and support the Court's public education efforts.

CONCLUSION

The **SMAART** process boils down to one question – how do you know you are doing a good job or having the impact desired? The most significant impact of this performance measurement program may be to improve and strengthen internal managerial processes. This is not why it was created.   The program was created to establish a method for continuous improvement and communication. SMAART provides for:

➢ Accountability to the Court.
➢ Accountability to the County.
➢ Accountability to the Administrative Office of the Illinois Courts.
➢ Accountability to citizens by identifying results and accomplishments.
➢ Facilitates future decision-making and communication.
➢ Focused problems-solving and effective program/service improvements.
➢ Strengthens strategic planning.
➢ Provides comparative data over time.
➢ Improves internal and external client/customer service.
➢ Enables the Court to determine effective resource use.

SMAART will continue to be improved according to identified needs and future direction of the County and the Court. As our experience and understanding grow, additional information, examples, techniques and tips will continue to be added. Comments, input and suggestions to make this process better are always welcomed and should be directed to the SMAART Team.

Appendices

Appendix A: Court's Balanced Scorecard – 16 Measures Listed and Defined

Appendix B: SMAART work form for program evaluation

Appendix C: Examples of "What is Measured"

Appendix D: Examples of "Methods of Measurement"

Appendix E: Examples of "Targets For Next Measurement"

Appendix F: Tools for Program Assessment

APPENDIX A:

COURTS BALANCED SCORECARD – 16 MEASURES LISTED AND DEFINED

	Access to Justice	Expedition and Timeliness	Equality, Fairness and Integrity	Independence and Accountability	Public Trust and Confidence
Success of Probation – Adult		X	X	X	
Success of Probation – Juvenile		X	X	X	
Success of Jury Commission	X	X	X		X
Satisfaction of Court Users	X			X	X
Resource Strength				X	X
Success of Case Management Practices		X	X	X	
Financial Health of the Courts	X			X	X
Impact of Compliance Program	X		X		
Success of Public Awareness and Education Program				X	X
Percent of Mediation Agreements Reached	X	X			
Success of Psychological Services			X		
Payment of Costs, Fines and Restitution by All Court Users	X		X		
Quality and Preservation of Files and Records	X		X		
Effectiveness of Services Provided in the Law Library	X			X	
Effectiveness of Legal Research Unit		X	X		
Impact of Kids Korner	X				X

Access to Justice
The Circuit Court shall conduct its proceedings and other public business openly. The court facilities shall be safe, accessible and convenient to use. All who appear before the Court shall be given the opportunity to participate effectively without undue hardship or inconvenience. Judges and other trial court personnel shall be courteous and responsive to the public and accord respect to all with whom they come into contact. The costs of access to the Court's proceedings – whether measured in terms of money, time or the procedures that must be followed – shall be reasonable, fair and affordable.

Expedition and Timeliness
The Circuit Court of Lake County shall establish and comply with recognized guidelines for timely case processing, while at the same time keeping current with its incoming caseload. The Court shall disburse funds promptly, provide reports and information according to required schedules, and respond to requests for information and other services on an established schedule that assures their effective use. The Court shall promptly implement changes in law and procedure.

Equality, Fairness and Integrity
The Circuit Court of Lake County shall faithfully adhere to relevant laws, procedural rules and established policies. Jury lists are representative of the jurisdiction from which they are drawn. The Court shall give individual attention to cases, deciding them without undue disparity among like cases and upon legally relevant factors. Decisions of the court shall unambiguously address the issues presented to it and make clear how compliance can be achieved. The Court shall take appropriate responsibility for the enforcement of its orders. Records of all relevant court decisions and actions shall be accurate and properly preserved.

Independence and Accountability
The Circuit Court of Lake County shall maintain its institutional integrity and observe the principle of comity in its governmental relations. The Court shall responsibly see, use and account for its public resources. The Court shall use fair employment practices. The Court shall inform the community of its programs. The Court shall to the best of its ability, anticipate new conditions or emergent events and adjust its operations as necessary.

Public Trust and Confidence
The Circuit Court of Lake County, and the justice it delivers, shall be perceived by the public as accessible. The public shall have trust and confidence that the basic court functions are being conducted expeditiously and fairly, and that its decisions have integrity. The trial court shall be perceived as independent, not unduly influenced by other components of government, and accountable.

Measures	Definition	Indicator, Inputs or Outputs	Methods of Measurement
Success of Probation – Adult	• Successful completion of Probation • Pretrial success rate • Completion of Public Service hours • Urinalysis • Completion of Treatment	‣ Rate of successful completion without violations ‣ Rate of defendants making their court dates without bond revocation ‣ Rate of completion of hours at time of probation case closing ‣ % of probationers' positive urine screenings ‣ Rate of completion of court ordered treatment at time of case closings	Prober records Case records Prober records Manual statistics Case records
Success of Probation/ Detention – Juvenile	• Successful completion of probation • Completion of Public Service hours • Minors held in Detention • FACE-IT	‣ Rate of successful completion without new delinquency petitions ‣ Rate of completion of hours at time of probation case closing ‣ Rate of attitudinal changes in detained minors ‣ % of Minors completing programs and aftercare successfully	Tracker records Tracker records Pre and post surveys
Success of Jury Commission	• Grand Jurors • Petit Jurors	‣ Satisfaction rates of jurors: questions #2 and #6 ‣ Juror Yield (# appeared v. # summoned) ‣ Juror Utilization (# sent to court v. # serving) ‣ Impanelment rate (% of reporting jurors actually seated as jurors)	Customer surveys Manual Statistics
Satisfaction of Court Users	• Grand Jurors • Law Library • Kids Korner	‣ Satisfaction rates of jurors: questions #2 and #6 ‣ Satisfaction of patrons ‣ Satisfaction of parents of children utilizing Kids Korner	Customer surveys Customer surveys Customer surveys
Resource Strength	• Judicial Human Resources • Judicial Information Services • Judicial Training, Grants and Planning	‣ # of employees: passing 6-month introductory period, increasing their education level, promoted via career path or directed promotions ‣ # of calls to Helpdesk, issues resolved/not resolved, days/hours to resolve issues ‣ # of employees receiving training, satisfaction of employees with training	Manual Statistics Helpdesk Statistics Statistics/ Surveys
Success of Case Management Practices	• Effective balance of court call in C402- DUI court	‣ # of cases set in courtroom daily and quarterly ‣ Satisfaction of staff, attorneys, arresting agencies and judges	CRIMS records Customer feedback
Financial Health of the Courts	• Financial Indices	‣ % actual expenses compared to budget ‣ % actual revenues collected compared to budget ‣ % AOIC funding compared to amount vouchered	Quarterly reports Quarterly reports Quarterly reports
Impact of Compliance Program	• Success of Conditional Discharge supervision • Success of Domestic Violence supervision	‣ # of defendants sentenced and reporting, and # of non-compliance notices ‣ # of letters to defendants, # completing with assessment, and # of non-compliance notices to prosecutors	C-Master and case records C-Master and case records
Success of Public Awareness and Education Program	• Partnership with CLC • Internal Public Awareness Programs	‣ # of clients completing CLC education programs (DDC, Impact Panels, Family Parenting, Volunteer Probation, and Family Violence Coordinating Council) ‣ # of events held/ website hits/ persons attending public awareness programs (Speakers Bureau, Senior and High School Law Days, Showcasing the 19th Judicial Circuit, etc.)	Manual Statistics Manual Statistics
Percent of Mediation Agreements Reached	• Percent of Mediation Agreements Reached	‣ # of Full and Partial agreements ‣ # of cases that failed to reach agreements	Case files Reports/ Inquiries

Success of Psychological Services	• Psychological Services assessment of programs
	
	    • Rate of Contractor Performance
	    • Internal measurement of quality of evaluations and assessments
		‣ Ratings of quality of contracted treatment programs
		‣ % of recidivism (related case) within one year of treatment completion
		‣ % completion of treatment (anger management, sex offender treatment, Haymarket and Gateway)
		‣ Ratings by Resources Liaisons and Officers based on timeliness, communication, quality and accuracy
		‣ Ratings of internal services by judges and probation officers of timeliness, communication and quality
			Surveys
			CRIMS records
			Manual statistics
			Manual statistics

Payment of Costs, Fines and Restitution by All Court Users	• Payment of court obligations- Adult • Payment of court obligations- Compliance	‣ % of court obligations paid at case closings ‣ Dollars collected	Prober records CRIMS records
Quality and Preservation of Files and Records	• Accuracy of files	‣ % of Judicial Human Resource files reviewed	File audits
Effectiveness of Services Provided In the Law Library	• Customer Service • Cost effectiveness and usage of materials	‣ # of customers, # of hits on website, ratings of satisfaction ‣ Amount of publications used and comparisons with alternate resources ‣ Dollars collected from printing, faxing and copying	Manual statistics Customer surveys
Effectiveness of Legal Research Unit	• Assessment of quality of research	‣ Satisfaction ratings by judges	Customer surveys
Impact of Kids Korner	• Assess and improve customer service	‣ Satisfaction ratings by judges ‣ Satisfaction ratings by deputies	Customer surveys Customer surveys

APPENDIX B

S M A A R T Program Evaluation Report Form

SMAART Analysis of (type name of program here)
Description: (type goals of program here)
Division: **Date:**
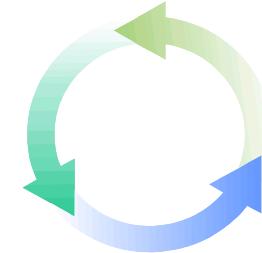
Note: Not all sections below will be applicable for each program analysis. Please put N/A if the section does not apply.

Customers

What is Measured (indicators, inputs, outputs, measures, etc.)	Methods of Measurement (surveys, interviews, types of statistical analyses, etc.)	Results of Past Measurements	Results of Current Measurements	Target for Next Measurement (standards or benchmarks)

Finance/Budget

What is Measured (indicators, inputs, outputs, measures, etc.)	Methods of Measurement (surveys, interviews, types of statistical analyses, etc.)	Results of Past Measurements	Results of Current Measurements	Target for Next Measurement (standards or benchmarks)

Internal Processes: (Please answer the following questions.)

1. What process or procedural changes were initiated during this reporting period?

2. What resources were utilized to make these changes?

3.   What were the positive and negative effects of these changes on the program and/or the organization?

Future Program Change and Development: (Please answer the following questions.)

1. What program changes are proposed for the next reporting period?

2. What resources are needed to implement these changes?

3. What is the potential impact of the proposed changes on the program and organization?

A P P E N D I X **C**

Examples of "What is Measured":

➢ # of contacts (offenders/service providers/attorneys/etc)
➢ Dollars/cost to organization per unit
➢ Amount of intergovernmental relations
➢ Amount of positive/negative employee motivation/morale/skill-set
➢ Amount of services/productivity/# of outputs
➢ Description of decision-making
➢ Amount of accountability of managers/teams/unit
➢ # of jail/detention center population
➢ # of completed tasks
➢ # of continuances
➢ # of rescheduled appoints/referrals/etc
➢ # of errors rate
➢ # of complaints about services provided
➢ # of days to …
➢ Amount of waiting time
➢ # of service sites
➢ # of client/ customer positive or negative feedback
➢ Amount of response time/turn-around time/processing time
➢ # of days/hours/etc to complete task(s)

Appendix D

Examples of "Methods of Measurement":

- ➢ Client/Customer Telephone Survey
- ➢ Internet Survey
- ➢ Random Survey – Monthly/Quarterly/Semi-annual
- ➢ Interviews
- ➢ Employee Survey
- ➢ Cross-jurisdictional Statistical Comparison
- ➢ Trend Analysis – workload/caseload statistics
- ➢ Time Series Statistics
- ➢ Financial/Cost Measurement
- ➢ Review of Records
- ➢ Tests/Examinations
- ➢ Statistical Reports
- ➢ Group techniques
- ➢ Audit Reports
- ➢ Policy and/or Procedure Reviews

Appendix E

Lists of "Targets for Next Measurement":

- ☒ X% increase/decrease of contacts (offenders/service providers/attorneys/etc)
- ☒ Reduced cost to organization
- ☒ Lower cost per unit of service/function/trial/etc
- ☒ Improved intergovernmental relations
- ☒ % Improvement of employee motivation/morale/skill-set
- ☒ X% increase in/of service/productivity/output
- ☒ Improved quality of decision making
- ☒ Increased accountability of managers/teams/unit
- ☒ %/# Reduction of jail/detention center population
- ☒ % change in being more proficient in completing tasks
- ☒ %/# Reduction in continuances
- ☒ %/# Reduction in rescheduling appoints/referrals/etc
- ☒ %/# Reduction error rate
- ☒ %/# Reduction in complaints about services provided
- ☒ %/# Reduction in average number of days to …
- ☒ %/# Reduction in waiting time
- ☒ %/# Increase is service sites
- ☒ %/# Increase client/customer satisfaction
- ☒ %/# Increase in response time/turn-around time/processing time
- ☒ %/# Reduction in average number of days/hours/etc to complete task(s)

Appendix F

TOOLS FOR INITIAL PROGRAM ASSESSMENT

1. BRAINSTORMING
CREATING BIGGER AND BETTER IDEAS

Why use it?
To establish a common method for a team to creatively and efficiently generate a high volume of ideas on any topic by creating a process that is free of criticism and judgment.

What does it do?
- Encourages open thinking when a team is stuck in "same old way" thinking.
- Gets all team members involved and enthusiastic so that a few people don't dominate the whole group.
- Allows team members to build on each other's creativity while staying focused on their joint mission.

How do I do it?
There are two major methods for brainstorming.
- *Structured.* A process in which each team member gives ideas in turn.
- *Unstructured.* A process in which team members give ideas as they come to mind.
  Either method can be completed written or orally.

<u>Structured</u>
1. **The central brainstorming question is stated, agreed on, and written down for everyone to see**
   Be sure that everyone understands the question, issue, or problem. Check this by asking one or two members to paraphrase it before recording it on a flipchart or board.
2. **Each team member, in turn, gives an idea. No idea is criticized. Ever!**
   With each rotation around the team, any member can pass at any time. While this rotation process encourages full participation, it may also heighten anxiety for inexperienced or shy team members.
3. **As ideas are generated, write each one in large, visible letters on a flipchart or other writing surface**
   Make sure every idea is recorded with the same words of the speaker, don't interpret or abbreviate. To ensure this, the person writing should always ask the speaker if the idea has been worded accurately.

4. **Ideas are generated in turn until each person passes, indicating that the ideas (or members) are exhausted**

Keep the process moving and relatively short – 5 to 20 minutes works well, depending on how complex the topic is.

5. **Review the written list of ideas for clarity and to discard any duplicates**

Discard only ideas that are virtually identical. It is often important to preserve subtle differences that are revealed in slightly different wordings.

2. THE PARETO CHART

FOCUS ON KEY PROBLEMS

Why use it?

To focus efforts on the problems that offer the greatest potential for improvement by showing their relative frequency or size in a descending bar graph.

What does it do?

- Helps a team to focus on those causes that will have the greatest impact if solved.
- Based on the proven Pareto principle: 20% of the sources cause 80% of any problem.
- Displays the relative importance of problems in a simple, quickly interpreted, visual format.
- Helps prevent "shifting the problem" where the "solution" removes some causes but worsens others.
- Progress is measured in a highly visible format that provides incentive to push on for more improvement.

How do I do it?

1. **Decide which problem you want to know more about**
Example: Consider the case of JIS Help Desk, an internal computer help line: Why do people call the help line; what problems are people having?

2. **Choose the causes or problems that will be monitored, compared, and rank ordered by brainstorming or with existing date.**
   - Brainstorming
   Example: What are typical problems that users ask about on the JIS Help Desk help line?
   - Based on existing data
   Example: What problems in the last month have users called in to the JIS Help Desk help line?

3. **Choose the most meaningful unit of measurement such as frequency or cost**
   - Sometimes you don't know before the study which unit of measurement is best. Be prepared to do both frequency and cost.
   Example: For the JIS Help Desk data the most important measure is frequency because the project team can use the information to simplify software, improve documentation or training, or solve bigger system problems.
4. **Choose the time period for the study**
   - Choose a time period that is long enough to represent the situation. Longer studies don't always translate to *better* information. Look first at volume and variety within the data.
   - Make sure the scheduled time is typical in order to take into account seasonality or even different patterns within a given day or week.
   Example: Review JIS Help Desk help line calls for 10 weeks (May 22-August 4).
5. **Gather the necessary date on each problem category either by "real time" or reviewing historical data**
   - Whether the data is gathered in "real time" or historically, check sheets are the easiest method for collecting data.
   Example: Gathered JIS Help Desk help line calls data based on the review of incident reports (historical).

   Tip Always include with the source data and the final chart, the identifiers that indicate the source, location, and time period covered.
6. **Compare the relative frequency or cost of each problem category.**

7. **List the problem categories on the horizontal line and frequencies on the vertical line**
   - List the categories in descending order from left to right on the horizontal line with bars above each problem category to indicate its frequency or cost. List the unit of measure on the vertical line.
8. **(Optional) Draw the cumulative percentage line showing the portion of the total that each problem category represents**
   a. On the vertical line, (opposite the raw data, #, $, etc.) record 100% opposite the total number and 50% at the halfway point. Fill in the remaining percentages drawn to scale.
   b. Starting with the highest problem category, draw a dot or mark an x at the upper right-hand corner of the bar.
      - Add the total of the next problem category to the first and draw a dot above that bar showing both the cumulative number and percentage. Connect the dots and record the remaining cumulative totals until 100% is reached.
9. **Interpret the results**
   - *Generally,* the tallest bars indicate the biggest contributors to the overall problem. Dealing with these problem categories first therefore makes common sense. *But,* the most frequent or expensive is not always the

most important. Always ask: What has the most impact on the goals of our business and customers?

Variations

The Pareto Chart is one of the most widely and creatively used improvement tools. The variations used most frequently are:

A. **Major Cause Breakdowns** in which the "tallest bar" is broken into subcauses in a second, linked Pareto.

B. **Before and After** in which the "new Pareto" bars are drawn side by side with the original Pareto, showing the effect of a change. It can be drawn as one chart or two separate charts.

C. **Change the Source of Data** in which data is collected on the same problem but from different departments, locations, equipment, and so on, and shown in side-by-side Pareto Charts.

D. **Change Measurement Scale** in which the same categories are used but measured differently. Typically "cost" and "frequency" are alternated.

3.   Improvement Storyboard

There are many standard models for making improvements. They all attempt to provide a repeatable set of steps that a team or individual can learn and follow. The Improvement Storyboard is only *one* of many models that include typical steps using typical tools. Follow this model or any other model that creates a common language for continuous improvement within your organization.

Plan

1. **Select the problem/process that will be addressed first (or next) and describe the improvement opportunity.**
2. **Describe the current process surrounding the improvement opportunity.**
3. **Describe all of the possible causes of the problem and agree on the root cause(s).**
4. **Develop an effective and workable solution and action plan, including targets for improvement.**

Do

5. **Implement the solution or process change.**

Check

6. **Review and evaluate the result of the change.**

Act

7. **Reflect and act on all information learned.**

Plan

Depending on your formal process structure, Step 1 may be done by a steering committee, management team, or improvement team. If you are an improvement team leader or member, be prepared to start with Step 1 *or* Step 2.

1. **Select the problem/process that will be addressed first (or next) and describe the improvement opportunity.**
   - Look for changes in important business indicators
   - Assemble and support the right team
   - Review customer data
   - Narrow down project focus. Develop project purpose statement

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   - Review customer data
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Typical Tools
Brainstorming, Affinity Diagram, Check Sheet, Control Chart, Histogram, Interrelationship Digraph, Pareto Chart, Prioritization Matrices, Process Capability, Radar Chart, Run Chart

Situation
Stop 'N Go Pizza[*] is a small but recently growing pizza delivery business with six shops. After a period of rapid growth, Stop 'N Go Pizza experienced a six-month decline in volume. Customers were leaving. Top management formed a mixed team of store managers, kitchen staff, and delivery personnel to find out why, and to generate an implementation plan to correct the situation. The team used both the Run Chart and Pareto Chart.

4. TREE DIAGRAM
MAPPING THE TASKS FOR IMPLEMENTATION

Why use it?
To break any broad goal, graphically, into increasing levels detailed actions that must or could be done to achieve the stated goals.

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[*] The name Stop 'N Go Pizza, and the data associated with this case study are fictional. Any similarity to an actual company by this name is purely coincidental.

What does it do?

- Encourages team members to expand their thinking when creating solutions. Simultaneously, this tool keeps everyone linked to the overall goals and subgoals of a task
- Allows all participants, (and reviewers outside the team), to check all of the logical links and completeness at every level of plan detail
- Moves the planning team from theory to the real world
- Reveals the *real* level of complexity involved in the achievement of any goal, making potentially overwhelming projects manageable, as well as uncovering unknown complexity

How do I do it?

1. **Choose the Tree Diagram goal statement**

> Goal: Increase workplace suggestions

- Typical sources:
  - The root cause/driver identified in an Interrelationship Digraph (ID)
  - An Affinity Diagram with the headers as major subgoals
  - Any assignment given to an individual or team
- When used in conjunction with other management and planning tools, the most typical source is the root cause/driver identified in the ID.

Tip: *Regardless of the source, work hard to create-through consensus-a clear, action-oriented statement.*

2. **Assemble the right team**
- The team should consist of action planners with detailed knowledge of the goal topic. The team should take the Tree only to the level of detail that the team's knowledge will allow. Be prepared to hand further details to others.
- 4-6 people is the ideal group size but the Tree Diagram is appropriate for larger groups as long as the ideas are visible and the session is well facilitated.

3. **Generate the major Tree headings, which are the major subgoals to pursue**
- The simplest method for creating the highest, or first level of detail, is to brainstorm the major task areas. These are the major "means" by which the goal statement will be achieved.
- To encourage creativity, it is often helpful to do an "Action Affinity" on the goal statement. Brainstorm action statements and sort into groupings, but spend less time than usual refining the header cards. Use the header cards as the Tree's first-level subgoals.

Tip Use Post-it notes to create the levels of detail. Draw lines only when the Tree is finished. This allows it to stay flexible until the process is finished. The Tree can be oriented from left to right, right to left, or top down.

Tip Keep the first level of detail broad, and avoid jumping to the lowest level of task. Remember: "If you start with what you already know, you'll end up where you've already been."

4.   Break each major heading into greater detail

- Working from the goal statement and first-level detail, placed either to the extreme left, right or top of the work surface, ask of each first-level item:
    "What needs to be addressed to achieve the goal statement?"
  Repeat this question for each successive level of detail.

- Stop the breakdown of each level when there are assignable tasks or the team reaches the limit to its own expertise. Most Trees are broken out to the third level of detail (not counting the overall goal statement as a level). However, some subgoals are just simpler than others and don't require as much breakdown.

5.   Review the completed Tree Diagram for logical flow and completeness

- At each level of detail, ask "Is there something obvious that we have forgotten?"
- As the Tree breaks down into greater detail (from general to specific) ask, "If I want to accomplish these results, do I really need to do these tasks?"
- As the Tree builds into broader goals (from the specific to the general) ask, "Will these actions actually lead to these results?"
- Draw the lines connecting the tasks.

Tip The Tree Diagram is a great communication tool. It can be used to get input from those outside the team. The team's final task is to consider proposed changes, additions or deletions, and to modify the Tree as appropriate.

Variations

The process Decision Program Chart (PDPC) is a valuable tool for improving implementation through contingency planning. The PDPC, based on the Tree Diagram, involves a few simple steps.

1.   Assemble a team closest to the implementation
2.   Determine proposed implementation steps
  - List 4-10 broad steps and place them in sequence in the first Tree level.
3.   Branch likely problems off each step
  - Ask "What could go wrong?"
4.   Branch possible and reasonable responses off each likely problem
5.   Choose the most effective countermeasures and build them into a revised plan.