

NASCA 2001 OUTSTANDING PROGRAM AWARDS

Program Title: IT Project Management Methodology Program

Category: Performance Measurement

State: Kansas

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EXECUTIVE SUMMARY

In 1998, the Administration and the Kansas Legislature took aggressive action to reorganize the States' information technology (IT) governance. This action focused on reporting functions and oversight responsibility for IT administration. With the passage of KSA 75-7201 et. seq., the State created Chief Information Technology Officers (CITO) for each branch of government, required a state enterprise IT architecture, and mandated the creation of project management standards for all branches of government.

KSA 75-7201 et. seq. provides for the creation of a 17-member Information Technology Executive Council (ITEC) charged with setting the state's IT policy. The Governor appoints members of ITEC and the council is part of the executive branch under the direction of the Secretary of Administration. ITEC's mission is to manage information technology including adoption of policies, procedures and management methodologies for state government.

ITEC has oversight authority on all IT projects with an estimated cumulative cost of \$250,000 or more. Each project at such a level must first go to the appropriate branch of government's Chief Information Technology Officer (CITO) for approval. Then, the project must be approved by the Joint Legislative Committee on Information Technology (JCIT). Each project presentation, in front of JCIT, must include a detailed project plan, a project summary description, cost-benefit analysis, staffing and work breakdown schedule, deliverable report, risk identification, quality assurance plan, change control management plans, Gantt charts and a detailed budget.

In part, the objectives for ITEC are to ensure IT project success and to establish standards from which all IT projects will be managed in state government. ITEC ensures this success through the IT Project Management Methodology Training Program.

Kansas has adopted standards and created a 350-page Project Management Standards textbook. The text is based on industries' best practices text developed by the State of California and amended by Kansas to include its standards as well as federal government standards.

Kansas has trained and certified 126 project managers through a rigorous 120-hour in-class instruction program. All participants must pass a final exam as a condition for certification.

The Standards have been used successfully in a number of projects. The investment in the Standards and certification is \$240,793. This investment has been returned multi-fold. For example, in one project, \$1.5 million was saved by bringing an application in ahead of schedule. In a second project, more than \$2.2 million was saved by early implementation of an HR/Payroll system. Also, more than \$2.8 million was saved in avoided federal penalties by successfully implementing a State Child Support Enforcement System.

Kansas' goal is to achieve a return on investment (ROI) break-even point of 12 to 24 months with three times cost of capital in the out-years. To date, projects implemented under these standards have exceeded these ROI objectives.

a. Description of the program and relative significance to the improvement of the operation and/or efficiency of state government:

Following its mission, ITEC mandated standards be set and training classes be conducted in IT project management. The Kansas IT Project Standards and Certification program is designed to instill an in-depth understanding of the principles and tools integral to Kansas Project Management Methodology. Participants learn the theory of the methodology, then apply these concepts as they work in individual teams developing and managing a project through required stages. The State established three project objectives for the program:

1. Bring all projects in on-time and on-budget.
2. Achieve hard dollar savings of three times cost of capital with IT project break-even points of 12 to 24 months.
3. Aggressively report and scorecard project success through bimonthly independent reporting and auditing.

Course instruction includes a rigorous curriculum with hands-on exercises, a mid-term exam, and a final exam. Class size varies from a minimum of eight students to a maximum of 16 students. Participants who score at least 80 percent (100 points possible) on the certification exam and attend 80 percent of the classes become Certified IT Project Managers.

The Kansas IT Project Certification and Standards program uses the following syllabus.

- I. Phases of IT project
 - a. Concept
 - b. Planning
 - c. Start-Up

- d. Execution (including System Development Life Cycle procedures)
 - e. Close-Out
- II. Components of the Project Plan
- a. Project statement
 - b. Charter (goals/objectives/statement of work)
 - c. Budgeting
 - d. Organizational chart
 - e. Work Breakdown schedule
 - f. Work identification plan
 - g. Gantt or PERT charts
 - h. Resource planning including FTE, facilities, and tools
 - i. Estimated Cost at completion analysis
 - j. Requirement analysis
 - k. Risk identification/contingency planning
 - l. Configuration/Change control management
 - m. Quality assurance management
 - n. Issue management
 - o. Performance Evaluation close-out summary
- III. IT Project Approval Process in Kansas Government
- a. Budget thresholds
 - b. CITO approvals
 - c. JCIT oversight and approvals
 - d. 10 percent project variances (in budget and/or schedule) procedures
 - e. Policies adopted by ITEC

The program uses the ‘Kirkpatrick Model’ to evaluate the effectiveness of the training. This model is a summative model that measures training outcomes at four levels: participant *reaction* to the program (Level 1); the *learning* that occurred in the program (Level 2); *behavior changes* resulting from the training (Level 3); and *organizational results* achieved (Level 4). This program is formally evaluated at Levels 1 and 2, and anecdotal evidence is collected through Levels 3 and 4.

- *Reaction* (Level 1) is taken from participants in each class. The sample size is 100 percent. The form collects both nominal and ordinal measurements, asking participants to rank their satisfaction with the delivery of the Course Objective and the Course Design using Likert Scaling. Nominal measurements are made through

questions that require the participant to write a short answer, such as “What three skills will you use from this course?”

- *Learning* (Level 2) is measured from each participant in each class. The class design includes skill demonstrations in the form of role-plays, after which the instructor provides feedback to the participants. A final Certification Exam measures the degree to which participants have achieved the Learning Objectives. The examination is 60 questions, and includes multiple choice and short answer items.
- *Behavior Changes and Organizational Results* (Level 3 and 4) are collected anecdotally from the Division of Information Systems and Communications (DISC) and members of the Information Technology Project Management Methodology Alumni Society.

b. Calculation of actual savings in the short and/or long term:

In Fiscal Year 1999, the State of Kansas approved \$14,521,000 in projects with an average break-even point of 25 months. In Fiscal Year 2000, IT projects totaled \$49,547,678. These projects had an average break-even point of 18.5 months. Overall, projects that have followed the project management standards achieved break-even points of 18.5 months with annual return of more than 14 percent after break-even.

For example, two projects achieved immediate budget savings of more than \$3.7 million. These projects include the rebuild of the Child Support Enforcement System (savings of \$1.5 million from budget) and the State HR/Payroll system (immediate return of \$2.2 million).

c. Quantitative benefits realized by service recipients, taxpayers, agencies, and state:

To date, 126 individuals have received certification. Classroom measures (Level 1) indicate that participants realize benefits and are able to identify specific skills they will use from the program. The benefits to taxpayers, agencies, and the State are substantial. Most significant to these benefits is the ability to fully return project costs in less than 24 months.

Aggressive break-even points and out-year returns allow the State to reduce its reliance on State general funds and to reinvest savings in new projects. For example, the Child Support Enforcement project followed the project management standards. As mentioned earlier, the project saved \$1.5 million in cash from the budget and allowed the State to avoid \$2.8 million in project penalties from the federal government. These penalties had been assessed when the original system failed, but were waived when the project was reorganized and successfully implemented in October 1999.

d. Relevancy of use by other state, local, and federal governments:

The methodology used by Kansas is easily adapted to the needs of other sectors, not just the public sector. Kansas has received requests for the textbook from other states, foreign countries (including the Government of South Africa), and the private sector. Private sector contractors working with the State of Kansas also have participated in the program.

Training and text materials should be adapted to the specific methodology required by the organization adopting the program. The use of a consultant to assist in modifications may be beneficial to the organization. The full methodology text may be accessed at: <http://da.state.ks.us/kito/simm/pm/Rel22/default.htm>.