ITERATIVE PROJECT REPORT FOR PROGRAMS & MULTI-YEAR PHASED PROJECTS

Submitted to Large Project Oversight on 5/07/2018

GENERAL INFORMATION

Program/Project Name: NDFoods 2.0
Agency Name: Department of Public Instruction
Project Sponsor: Linda Schloer; Director, DPI Child Nutrition and Food Distribution Programs
Project Manager: Heather Raschke; Project Manager, ITD

PROJECT DESCRIPTION

Originally developed and implemented in 2012 by ITD, NDFoods is a computer system for program application, claims and United States Department of Agriculture (USDA) Foods management. While the application has been a good product for (DPI), it is in need of repair and upgrading to meet the current needs of the agency and its customers.

This project supports DPI's Vision, Mission, and Priorities in the following manner:

- The project's solution will fix inaccuracies in the system and re-work system components to allow for a higher quality of data and decision making.
- The project's solution will incorporate additional budget types and financial management into the system. This is currently managed as a separate process outside of the system, leading to inefficient processes, communications, and decision making.

BUSINESS NEEDS AND PROBLEMS

DPI has the following general business needs which demonstrate the need for this project.

1. Improved decision-making capabilities
2. Improve staff efficiencies for the program the system supports
3. Improve reporting processes for sponsors (e.g. USDA Food Nutrition Services program participants and DPI)

PROJECT FORMAT

Program/Project Start Date: 07/01/2016

Budget Allocation at Time of Initial Start Date: $2,454,622 for entire project

How Many Phases Expected at Time of Initial Start Date: Three

Phased Approach Description: An iterative development methodology will be used for all phases of the project.

Estimated End Date for All Phases Known at Time of Initial Start Date: 09/28/2019

PROJECT ROAD MAP

The project road map shows the high level plan or vision for the program/projects/phases. It is intended to offer a picture of the lifespan of all the effort that is expected to be required to achieve the business objectives.

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Project or Phase	Title	Scope Statement	Estimated Duration (months)	Estimated Budget
Project 1 Phase 1	NDFoods 2.0 Phase 1	Fix system errors and provide better processing in the system	16	$977,672
Project 2 Phase 2	NDFoods 2.0 Phase 2	Provide a mechanism for tracking Family Childcare Home Sponsoring Organizations (FCHSO) financial data in the system	7	$471,728
Project 3 Phase 3	NDFoods 2.0 Phase 3	Increase reporting capabilities in the system	16	$1,005,222

Notes:

All scope from phases 2 and 3 were pulled into phase 1. Phases 2 and 3 were eliminated.

PROJECT BASELINES

The following are the metrics for **Phase 1** of the project. The costs are inclusive through Implementation but do not include project closeout activities for the project manager.

Original/ Final	Baseline Start Date	Baseline End Date	Baseline Budget	Actual Finish Date	Schedule Variance	Actual Cost	Cost Variance
Originally Baselined Information	07/01/16	9/29/2017	$977,672	January 23, 2018	24% behind	$676,019.50	24.6% under
Final Baseline Information	07/01/16	9/29/2017	$977,672	January 23, 2018	24% behind	$676,019.50	24.6% under

The following table represents the entire **program (i.e. all three phases)**. Although the first phase was behind schedule, the program itself was ahead of schedule due to the scope of phases II and III being incorporated into phase I. In addition, over $95,000 worth of change orders were added to the scope of phase 1.

Phase	Scope (# of Requirements)		Budget		Schedule	
	Planned	Actual	Estimates at Project Start	Actual Costs to Date	Estimates at Project Start	Actual End Date
1	30	59 (+3)	$977,672	$676,019.50	September 2017	January 2018
2	14	0	$471,728	$0.00	May 2018	January 2018
3	11	0	$1,005,222	$0.00	September 2019	January 2018
Program	55	59 (+3)	$2,454,622	$676,019.50	September 2019	January 2018

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Difference	4 (+3) increase	$1,778,602.50 72.4% under budget	1 year 8 months 104.4% ahead of schedule

OBJECTIVES

Project or Phase	Business Objective	Measurement Description	Met/ Not Met	Measurement Outcome
Project 1 Phase 1	Objective 1.1: Increase decision-making capabilities through enhancing the usability of payment reports	Measurement 1.1.1: School Food Authority authorized representatives will have a twenty percent increase in satisfaction of payment reports as measured by a survey conducted within two quarters after implementation of phase 1 of the project.	Not Met	Q3 Claims Reporting went from a 4.20 average out of 5 to a 4.22. A 0.48% Increase. Q4 Payment Reports went from a 4.13 out of 5 to a 4.20. A 1.7% increase. Initial Survey Results were scored higher than the demand for the changes indicated. Thus, resulting in a smaller percentage increase than expected.
Project 2 Phase 2	Objective 2.2: Utilize one system for financial accounting of the food nutrition program (i.e. include FCHSO finances in the NDFoods system).	Measurement 2.2.1: One-hundred percent of the FCHSO data will be managed within NDFoods at the end of phase 2.	Met	All Submissions and Approvals for budgeting items are controlled in NDFoods. Estimated time savings of at least 60 hours or more yearly. With the module being new, more time was spent training, which means more hours saved as the agencies learn to utilize the features better.
Project 3 Phase 3	Objective 2.1: Automate data processing for DPI staff	Measurement 2.1.1: Upon implementation of phase 3, decrease by five the number of external spreadsheets used to manage the program.	Met	A total of 335 hours will be saved an annual basis through automation of the spreadsheets. • Health Inspection Report = 54 saved hours yearly • School Meal Price Report = 6 saved hours yearly • Fresh Fruits & Vegetables Grant = 35 saved hours yearly • Annual Training = 8 saved hours yearly • FCCH Budget = 160 saved hours yearly

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				FD Time Savings = 72 saved hours yearly
Project 3 Phase 3	Objective 3.1: Improve decision making and communications for stakeholders through report development	Measurement 3.1.1: Upon implementation of phase 3, the School Food Authorities will have access to at least one of each of the following types of reports: Financial, Participation, and Budget.	Met	Search Claims by Meals -Budget, Financial & Participation Enrollment Summary -Participation Accounting Tab -Budget & Financial

POST-IMPLEMENTATION REPORT

Post-Implementation Reports are to be performed after each project or phase is completed. A "PIR" is a process that utilizes surveys and meetings to determine what happened in the project/phase and identifies actions for improvement going forward. Typical PIR findings include, "What did we do well?" "What did we learn?" "What should we do differently next time?"

What Went Wrong? or What Went Right?	Lesson Learned (What behavior/action would have prevented or improved things? or What behaviors/actions should be repeated to promote success?)
Test Environment: During much of the project, the team only had one test environment to use. This created a backlog of items to be pushed into the test environment.	For iterative projects, plan from the onset to have separate environments for system testing and user acceptance testing to avoid having a backlog of items waiting to be pushed to test.
Testing: Business Analysts system tested the code developed by the programmers.	If resources allow, have the Business Analyst who conducted the analysis be the person assigned to system test the code. They are the most knowledgeable IT resource who understands how the system was designed to work.
SDLC: An iterative methodology was used for this system enhancement project.	Consider the factors associated with the project when determining the type of methodology to be used.
Requirements Prioritization: Initially, requirements were chosen for iterations based on programmer availability and to get quick return on investments. The team eventually started re-prioritizing the work periodically.	Re-prioritize requirements throughout the project to ensure the requirements most important to the customer are the ones being worked on. Consider how the agency will test to determine if any requirements should be packaged together.
Resources: Some of the resources on the project were familiar with the system being enhanced. Others were not.	Have flexibility in bringing additional resources onto the project. Consider conducting analysis walk-throughs were appropriate in addition to the normal code walk-throughs which are performed.
Communication: There was a good partnership between ITD and DPI on the project.	Be transparent in meetings. Be open to questions. Keep meetings short when they don't require a lot of discussion.
Transfer to Production: An item was transferred into production that should not have been.	If removing code from the. EAR file, have a double check of the code to ensure the correct code is in the newly generated .EAR file.

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What Went Wrong? or What Went Right?	Lesson Learned (What behavior/action would have prevented or improved things? or What behaviors/actions should be repeated to promote success?)
Funding Requests: Estimates are done quickly for grants because the federal government does not allow much time for this task.	Include a 'bug fix' factor into the cost estimates for implementation support. Also, account for the end-users to spend time learning the system.

COST BENEFIT ANALYSIS

The project did not change the operational costs of the NDFoods system (meaning that the hosting and maintenance costs did not go up with the implementation of the new functionality).

DPI is saving around 400 staff hours (or more) per year with the implementation of the NDFoods 2.0 functionality. This allows staff to work on more strategic tasks.

Accuracy of data is increased. The amount of staff time saved due to increased accuracy is difficult to measure.

KEY CONSTRAINTS AND/OR RISKS

The key project constraints are listed below.

1. Phase 1 funds must be obligated by September 30, 2016. (Any subsequent reallocation of funds will have their own obligation constraint dates.)

2. Phase 1 funding work must be completed by September 30, 2017. (Any subsequent reallocation of funds will have their own expense constraint dates.)

The key project risks are listed below.

3. New Iterative Development Methodology - The development methodology used on this project is different than the current documented development methodology used by ITD. However, it is based in part on the current practices of ITD's Big Dogs Software Development team. There will be a learning curve for the new methodology. This learning curve could negatively impact the schedule. Some staff may be resistant to change.

4. Scope is somewhat vague - The scope of the various changes is not identified to a detail level. Actual cost and time needed to complete the scope may vary from the original estimates. If this risk becomes an issue, the cost and schedule may be negatively impacted.

5. Limited number of Subject Matter Experts- There are a limited number of subject matter experts available for the project which may lead to 1) having only one expert for the system could negatively impact operations, and 2) a backlog of tasks could exist which may negatively impact the project schedule.

6. SME's may not fully understand the capabilities of the current system - Because the scope of the project is to build on an existing system, the SME's assigned to the project must understand how the current system works in order to make sound decisions. Making decisions on misinformation may lead to re-work, schedule delays, cost overruns, and poor quality.

7. DHS Login Changes - DHS and DPI use the some of the same programmers. DHS may need to modify their login as an emergency project. If so, the software development resources available to the NDFoods 2.0 project may be temporarily reassigned full-time to DHS affectively bringing this project to a halt.

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All risks for the project have been closed.