

6. OPEN ISSUES, RISKS, AND RISK MITIGATION STRATEGIES

Although many issues have been addressed while work on EASI/ED proceeded, several issues related to EASI/ED transition could not be resolved within the scope of this effort. To ensure that visibility to these open issues is not lost, subsection 6.1 names and briefly describes each transition-related issue still to be resolved.

In addition, a number of risks are associated with EASI/ED transition. Some of these are identified in the transition worksheets presented in subsection 4.2 of the *Transition Strategy*. Subsection 6.2 identifies a complementary set of program-level transition risks. Subsection 6.2 briefly describes each risk and its potential impact; categorizes the projected impact as technical, cost, and/or schedule; and recommends mitigation strategies.

6.1 Open Issues

This subsection presents open issues associated with the Project EASI/ED transition.

Issue Name: Management and control of change to current Title IV systems.

Description: The current Title IV systems undergo regular changes and enhancements due to legislative or regulatory changes, technical modernization efforts, and periodic development cycles (such as FAFSA changes and the annual initialization process for CBS). As the Project EASI/ED transition progresses, each change to a current system will impact EASI/ED development work in a number of ways, including driving modifications to data conversion and bridge programs, and causing changes to EASI/ED subsystem functionality to meet new requirements. SFAP has recently implemented a PSS-wide CM process. All changes that will cost more than \$100,000, or that are expected to affect more than one Title IV system, must be approved by a change review board. As Project EASI/ED work progresses, this process must be expanded to cover EASI/ED-related changes across SFAP. Project EASI/ED will greatly increase the volume and complexity of changes that must be addressed SFAP-wide, and ED should invest in robust CM tools to manage these changes.

Issue Name: Impact of the Band Strategy on the EASI/ED transition is unknown.

Description: The *Project EASI/ED Transition Strategy* considers the correlation of EASI/ED to Band 1. However, since no detailed plans are in place for the implementation of Bands 2 and 3 (which deal with software development services and other support services respectively) their impact on the EASI/ED transition was not assessed. As decisions are made on the structure of Bands 2 and 3 the impact on the *Project EASI/ED Transition Strategy* should be assessed, particularly where it effects the number, timing, and organization of acquisitions in support of EASI/ED implementation activities.

6.2 Risks

This subsection presents risks associated with the Project EASI/ED transition. Each subsection represents one risk, and includes a description, impact category, and risk mitigation technique(s).

6.2.1 Continuous change in SFAP organizations, programs, and systems has the potential to overwhelm transition management and threaten the success of Project EASI/ED.

Description. The environment within which the EASI/ED transition will take place is one characterized by continuous change. Changes in ED's strategic objectives, technology, Project EASI/ED requirements, user needs and expectations, and current Title IV systems all impact EASI/ED transition. ED does not currently have the disciplines and decision-making processes established to manage these changes in a unified way. If change is left unconstrained, the transition to the EASI/ED system is likely to suffer schedule and costs overruns. Beyond this, by trying to meet all requirements without constraint, the system may ultimately fail to satisfy any user expectations.

Impact. Technical, Schedule, Cost

Mitigation Technique(s).

- Institute a strong central change management organization that has the responsibility and authority to monitor and approve changes affecting the Project EASI/ED transition.
- Establish and support a forward planning function to anticipate and prepare for predictable change, and to develop contingency plans to cope with unexpected change.
- Develop flexible system architecture and contract approaches that can accommodate change without radical modification.
- Require complete documentation of any current system changes, with a strong integrator presence as early as possible to track and manage changes within EASI/ED requirements as a result of current system changes. Consider at some point in time locking down changes to current systems.
- Ensure strong SFAP leadership backing for instituting change management disciplines.

6.2.2 The technical complexity of bridges between EASI/ED and the current Title IV systems increases technical risk because they will be difficult to define, implement, and control, and because it may not be possible to cleanly bridge between existing applications and new EASI/ED functionality.

Description. As the EASI/ED system is implemented in increments, new functionality needs to run in parallel with legacy Title IV systems until EASI/ED is fully operational. The proposed approach for facilitating this transition is to construct temporary bridges between the remaining

portions of the current Title IV systems and the EASI/ED enterprise database. Bridges present a high degree of technical risk and complexity. Successful implementation requires a combination of EASI/ED-wide knowledge (both subsystem and enterprise database), as well as in-depth knowledge of current system applications and data. Bridges are central not only to the successful transition to EASI/ED, but also to the uninterrupted delivery of student financial aid during the transition period.

Impact. Technical, Schedule, Cost

Mitigation Technique(s).

- Ensure adequate current Title IV system contractor support in the design, development, implementation, and maintenance of bridges. Ensure continuity of current Title IV system contractors or access to contractors with in-depth knowledge if new contracts are awarded during the transition period. Leverage ED experts with in-depth knowledge of current system applications and/or data.
- As early as possible, begin detailed analysis of the data conversion and bridging strategy required for Project EASI/ED. Use limited prototypes to highlight and investigate issues surrounding the bridge creation and maintenance, and integration of bridges with EASI/ED overall. Investigate alternative techniques supporting tools that might alleviate some of the technical risk.
- Create well-crafted task orders and integration acquisitions that reward contractors for working cooperatively. Ensure incentives or performance measures are included in contracts and task orders to encourage close cooperation among the multiple vendors required to perform this work. Ensure strong ED involvement to ensure contractors can work effectively together.

6.2.3 Since cost/benefit analyses and budgetary constraints were not within the scope of the *Project EASI/ED Transition Strategy*, the transition schedule presented may not be implementable with the resources ED has available.

Description. The Project EASI/ED Transition Strategy was developed without information on budgetary constraints that ED will face in planning and executing the EASI/ED transition. If ED does not have the resources required to implement the acquisition, implementation approaches and timeframes may need to be changed.

Impact. Schedule, Cost

Mitigation Technique(s).

- As figures become available that specify the budget that will be available to fund EASI/ED transition efforts, ED should evaluate the Project EASI/ED transition schedule against these funding constraints.

6.2.4 Implementation timeframe estimates are based on limited information currently available and may prove to be inaccurate. Following detailed work plans based only on these estimates and may lead to schedule and cost overruns.

Description. Most techniques for estimating system implementation project timeframes are used after the design phase is complete. The *Project EASI/ED Transition Strategy* employed a requirements-based approach to estimating the time necessary to implement EASI/ED functionality. This approach was dictated by the life cycle phase that Project EASI/ED is currently in, and therefore the amount of information that is available. This estimating approach is likely to be less precise than one that takes advantage of more detailed technical and physical information such as numbers of screens, programs, and reports. Other factors that contribute to estimating uncertainty include lack of final decisions regarding implementation approach, skill of staff involved in the transition, availability of appropriate staff, contract structure and incentives, and budget. Inaccurate estimates may lead to unrealistic schedules, and to deadlines being missed

Impact. Schedule, Cost

Mitigation Technique(s).

- As detailed physical information (such as numbers of screens and programs) becomes available through the design of components of EASI/ED functionality, re-estimate timeframes using estimating methods (e.g., function point analysis) that can take advantage of this information
- As actual timeframes become available through the execution and completion of implementation projects, apply lessons learned to the timeframe estimates for any similar projects to be undertaken in the future. Use these metrics to reassess the overall schedule at key milestone points.
- Reassess estimated project durations based upon results of cost/benefit analysis and firm implementation decisions.
- Consider how contract structures and milestones can be used to ensure adherence to estimated timeframes, and revise timeframes based upon contractor work plans and/or ED's experience with vendors involved (if current system contractors).

6.2.5 Multiple parallel development efforts increase project complexity and potential for error.

Description. Each development effort performed in support of the Project EASI/ED transition represents a full system life cycle project. These multiple, concurrent efforts add to the management complexity of Project EASI/ED implementation by requiring planning and concurrent monitoring of differing technical efforts, interdependent schedules, staffing issues, etc. With the increase of variables that must be considered at any one time, the potential is increased for a problem with a specific effort to be missed or for multiple efforts to fall behind schedule before corrective action can be taken.

Impact. Technical, Schedule, Cost

Mitigation Technique(s).

- Require that development plans for each Project EASI/ED implementation project tightly integrate with the Project EASI/ED master transition schedule.
- Limit the number of implementation projects in progress at any given time to a manageable number (determined based on the complexity of each project, available staff, duration, and nature of efforts to be performed in parallel).
- Ensure that the Project EASI/ED transition organization has the authority to act as a strong, central management and coordination function, and that each implementation project is responsible to the transition organization for the successful integration of the project into the overall Project EASI/ED transition.
- Obtaining qualified program management staff and integration support necessary to hold effort together. Ensure that these staff are in place prior to commencing transition activities – once work is underway, the difficulty of trying to catch up with or undo past mistakes will overwhelm attempts to keep up with or prevent day-to-day issues.

6.2.6 Organization changes driven by EASI/ED may require substantial individual change by SFAP staff.

Description. As part of the Project EASI/ED implementation effort, the current SFAP organization will change to implement the vision of enhanced service delivery supported by much more effective and timely data and tools. Organization roles and responsibilities may also be affected by the service delivery and contracting structure determined to be most efficient. These changes will result in addition of new roles and responsibilities, as well as the elimination of some existing roles. SFAP staff may require training to transition to new roles. In some cases staff may be unable or unwilling to make this transition. In other cases, the new organization may require staff with skills and experience different than that of current staff. If staff are unable or unwilling to perform the roles required of the new organization, or if ED is unable to obtain staff with requisite skills, the quality of service delivery will be compromised.

Impact. Technical, Schedule, Cost

Mitigation Technique(s).

- Undertake a coordinated organizational change effort to assess current SFAP KSAs, to define the new service delivery and contracting structures, and to identify required roles and skills for the new organization as early as possible. Ensure that lead time is available to accustom staff to changes, to prepare and deliver necessary training, and to acquire staff with new skills.
- Take steps to manage organization change by ensuring that SFAP staff are aware of the process and why it is being undertaken, have an opportunity to “buy in” to the

changes, and receive assurance that positive steps will be taken to fit them into the new organization.

- Implement the organizational changes over time to allow more flexibility and time prepare the involved staff.
- Create a communications pipeline to provide information to all SFAP staff regarding plans, requirements, and opportunities, and to receive feedback and questions regarding changes.

6.2.7 Lack of in-depth current Title IV system knowledge could adversely impact quality and schedule of certain tasks.

Description. Certain Project EASI/ED transition tasks will require an in-depth knowledge of the current Title IV systems. These tasks include data conversion, bridge development, and re-use of current system code. If a current system contractor performs this work, they offer the advantage of established knowledge of the system, which should lead to cost and schedule savings to perform the work, as well as lowering technical risk. On the other hand, such a contractor may have difficulty reconciling responsibilities for maintenance of the current system against understanding and assisting with the transition. Additionally, the contractor(s) may not be knowledgeable of the tools and methodologies needed to make the effort successful. In this light, the current systems contractor may result in higher technical risk.

Impact. Technical, Schedule, Cost

Mitigation

- Perform a careful evaluation early in the transition to determine which tasks justify the use of a current contractor to perform the work. Factors to assess would include performance to date, availability of appropriately knowledgeable staff and of appropriately skilled technical staff, and extent of work to be performed.
- In cases where an alternative provider needs to perform the work, the transition schedule should be evaluated to determine when an acquisition must be begun to have the work performed on schedule and what specific requirements must be fulfilled. It is important that the new contractor is retained in sufficient time to ramp up and to perform the work within the planned timeframe.