



STUDENT FINANCIAL ASSISTANCE

Acquisition Planning Estimating Worksheet Procedures

Topics Covered:

- Section 1: Purpose**
- Section 2: Procedure Flow for Estimation Activities**
- Section 3: Procedure Steps**
- Section 4: Activity Definitions for Estimating Worksheet**

Section 1: Purpose

The purpose of this procedure is to guide Project Leads through the creation of a high-level estimate for the *planning* for an SFA acquisition project.

Why is this worksheet necessary?

This worksheet will be a helpful tool for project leads. It will capture the number of days involved at each level of the planning, funding and acquisition activities. Once project leads have completed planning activities, it will be a learning tool that enables the comparison of the actual time each activity took against the estimate. This data will be used to develop best practice estimates for future business cases.

What is system acquisition planning?

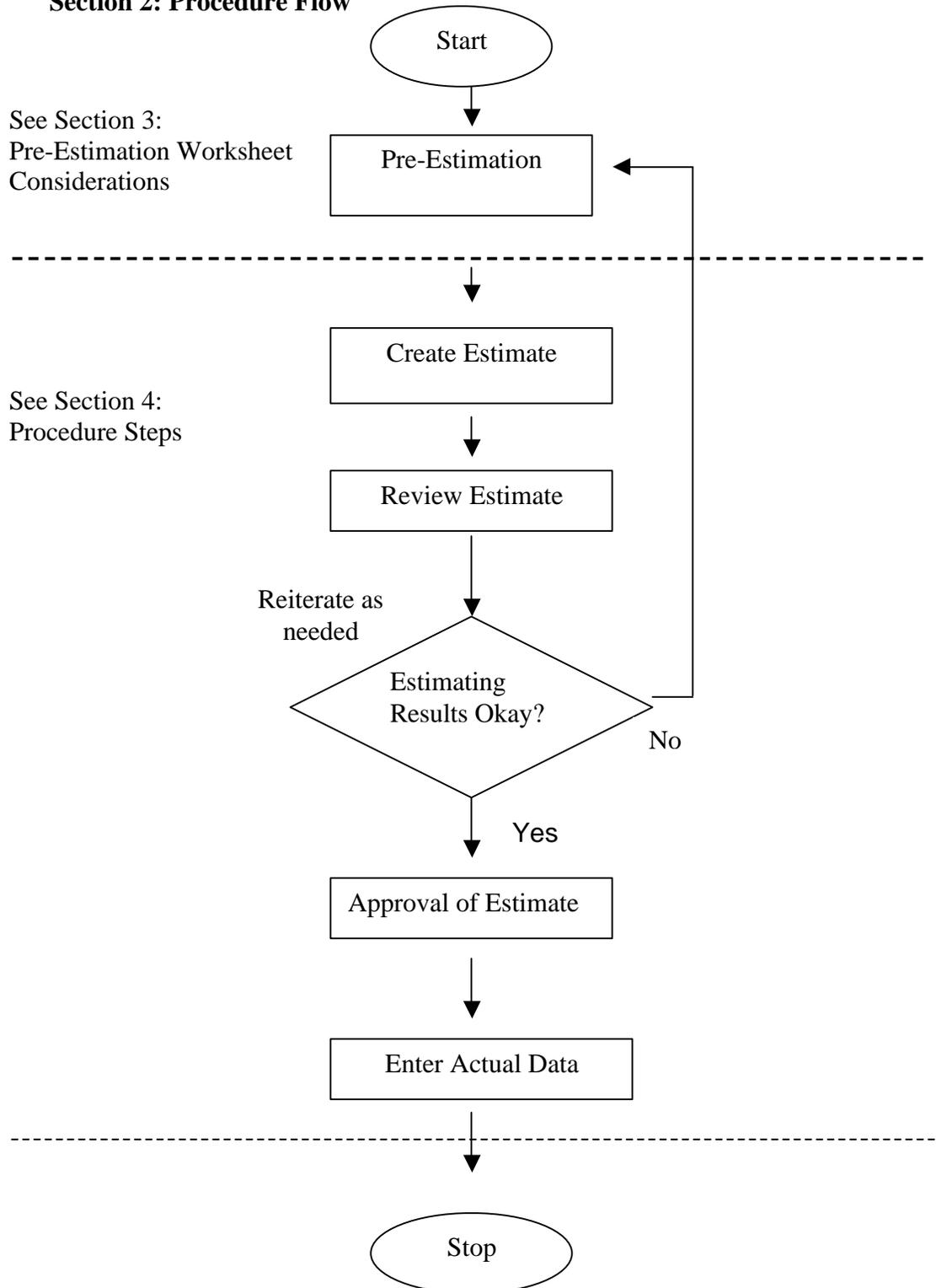
Planning is part of the first phase of the System Development Life Cycle (SDLC). It is divided into five stages that are listed in the “activities” column of the estimation worksheet. The planning phase begins when an SFA business issue in need of an IT solution is identified. Planning ends when the task order is awarded and signed.

When to complete this worksheet?

- Complete the “Estimating Basis”, “SFA Estimate” and “Contractor Estimate” columns once an IT business need has been identified and SFA chooses to begin the planning process.
- Upon completion of steps in the activity column, fill in “Start Date” and “Completion Date” columns.
- Upon completion of the planning phase update the “Total Actual” column with total effort spent on each activity.



Section 2: Procedure Flow





Section 3: Procedure Steps

A. Pre-Estimation Worksheet Considerations

Estimation of planning activities can be a challenging task. There are several variables and constraints involved in estimating effort for any project including incomplete information and limited resources. These estimating limitations do not excuse a planning team from estimating their work and managing that work to a budget and schedule. To help manage these challenges there are three areas to consider before completing this estimating worksheet:

1. What are your estimating assumptions?¹
 - a. _____
 - b. _____
 - c. _____

2. What are your estimating risks?²
 - a. _____
 - b. _____
 - c. _____

3. What is the rationale for your estimates?³
 - a. _____
 - b. _____
 - c. _____

¹ Assumptions used in estimation are things that are taken for granted or assumed to be true (e.g., project constraints, prior project information).

² Estimation risks are the risks identified that may affect the outcome of the estimate (e.g., inexperienced estimators, lack of familiarity with the work to be performed, new technologies.)

³ The rationale for the estimate provides the detailed description of how the estimate was developed (e.g., historical data from similar projects, productivity factors.)



B. Steps To Complete Estimating Worksheet

Step 1: First, Fill in project information...

- a. At the top of the estimation worksheet, enter the name of your project next to the heading labeled “Project Name.”

Example from Worksheet for step 1a:

Project Name: *Add your project name here*

Executive Sponsor:

- b. Enter the name of the executive sponsor next to the heading labeled “Executive Sponsor”.

Example from Worksheet for step 1b:

Project Name: _____
Executive Sponsor: *Add your executive sponsor's name here.*

- c. Enter the date you began filling in this worksheet next to the heading labeled “Start Date”

Example from worksheet for step 1c:

Worksheet Start Date: *Add your start date here.*

Worksheet Completion Date:

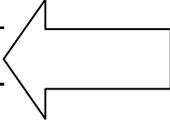


Step 2: Second, Fill in the “SFA Estimate” and “Contractor Estimate” Columns

- a. The first column in the estimation worksheet is the “Rational for Estimation” column. This column provides a detailed description of the estimate was developed. For example, for the first sub-step in activity 1: Business Case, “Formulate Acquisition team to develop Business Case” let’s say the estimate is 2 FTE’s will work for 3 days. Enter “2 FTE’s @ 3 days” in the Estimating Basis column. This column helps keep track of how the estimate was developed and it includes both SFA and Contractor time. Follow this procedure for all of the steps outlined in the Activity column.

Example from worksheet for step 2a:

#	Activity	Rational for Estimation
PLANNING:		
Entry Criteria: An SFA business issue in need of an IT solution is identified, an		
1	Business Case	
	Formulate Acquisition team to develop Business Case	2 FTE's @ 3 days
	Team Members Trained for Acquisition (Awareness Presentation)	
	Research for Business Case	
	Develop Business Case	
	Develop High Level Requirements	
	Review by GM	
	Develop initial Acquisition Plan	
	Total Business Case days	



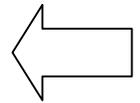


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- b. Once the “Rational for Estimation” is complete, use the information to fill out the “SFA Estimate” and “Contractor Estimate” columns. Determine the number of days it will take SFA Employees to *Formulate Acquisition team to develop business case*. Enter this number in the space provided in the SFA Estimate column. In the example we have entered 2 days for the SFA Estimate.

Example from Worksheet for step 2b:

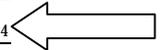
#	Activity	Rational for Estimation	SFA Estimate (Days)
PLANNING:			
Entry Criteria: An SFA business issue in need of an IT solution is identified, and a member of the SFA Man			
Business Case			
1	Formulate Acquisition team to develop Business Case	2 FTE's @ 3 days	2
	Team Members Trained for Acquisition (Awareness Presentation)		
	Research for Business Case		
	Develop Business Case		
	Develop High Level Requirements		
	Review by GM		
	Develop initial Acquisition Plan		
	Total Business Case days		2



- c. Enter the number of days of Contractor effort in the “Contractor Estimate” column. Since the estimate was 2 FTE’s at 3 days, that equals 6 days of effort between SFA and Contractor resources. Two days have been spent by SFA resources, leaving 4 days of Contractor effort. Enter “4” into the “Contractor Estimate” column.

Example from worksheet for step 2c:

#	Activity	Rational for Estimation	SFA Estimate (Days)	Contractor Estimate (Days)
PLANNING:				
Entry Criteria: An SFA business issue in need of an IT solution is identified, and a member of the SFA Management Team is designated to ov				
Business Case				
1	Formulate Acquisition team to develop Business Case	2 FTE's @ 3 days	2	4
	Team Members Trained for Acquisition (Awareness Presentation)			
	Research for Business Case			
	Develop Business Case			
	Develop High Level Requirements			
	Review by GM			
	Develop initial Acquisition Plan			
	Total Business Case days		2	4





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- d. Note that the “Total Business Case days” row is automatically populated when values are entered into the “SFA Estimate” columns and the “Contractor Estimate” column. Also note that the “Total Estimate” column in the “Total Business case days” row has been populated at 6 days.

Example from worksheet for step 2d:

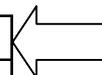
#	Activity	Rational for Estimation	SFA Estimate (Days)	Contractor Estimate (Days)	Total Estimate (Days)
PLANNING:					
Entry Criteria: An SFA business issue in need of an IT solution is identified, and a member of the SFA Management Team is designated to oversee the development					
Business Case					
	Formulate Acquisition team to develop Business Case	2 FTE's @ 3 days	2		4
	Team Members Trained for Acquisition (Awareness Presentation)				
	Research for Business Case				
1	Develop Business Case				
	Develop High Level Requirements				
	Review by GM				
	Develop initial Acquisition Plan				
	Total Business Case days		2		4



- e. The “Start Date” column enables you to keep track of how long each activity takes. At the beginning of each activity make sure you enter the start date in this column. Upon completion of the activity enter the completion date in the column labeled “Completion Date.”

Example from worksheet for step 2e:

#	Activity	Rational for Estimation	Start Date	Completion Date
PLANNING:				
Entry Criteria: An SFA business issue in need of an IT solution is identified, and a member of the SFA Management Team is designated to oversee the development				
Business Case				
	Formulate Acquisition team to develop Business Case	2 FTE's @ 3 days	6/3/2001	6/11/2001
	Team Members Trained for Acquisition (Awareness Presentation)			
	Research for Business Case			
1	Develop Business Case			
	Develop High Level Requirements			
	Review by GM			
	Develop initial Acquisition Plan			
	Total Business Case days			



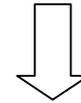
- e. Repeat the above steps (2a-2e) for the remainder of the sub-activities listed under “Business Case”.
- f. Repeat the steps outlined above for activities 2 (Decision Support Group) through activity 6 (Task Order).



Step 3: Entering Actual Data

- a. After completing the System Acquisition Planning Activities, be sure to capture actual data. Enter the actual number of days it took to complete each sub-step for each activity. The total number of days for each step will be automatically added and appear in the “Total” row for each step. For the purpose of illustration, we have entered values into the “Total Actual” column. This will be a valuable tool for improving your future estimates.

Example from Worksheet for step 3a:



#	Activity	Total Actual (Days)
PLANNING :		
Entry Criteria: An SFA business issue in need of an IT solution is identified, and		
1	Business Case	
	Formulate Acquisition team to develop Business Case	5
	Team Members Trained for Acquisition (Awareness Presentation)	4
	Research for Business Case	2
	Develop Business Case	3
	Develop High Level Requirements	7
	Review by GM	8
	Develop initial Acquisition Plan	10
	Total Business Case days	39

C. Review

Step 1: Peer Review

Once the estimate has been prepared (i.e. filled out the information in the “SFA Estimate” and “Contractor Estimate” columns) conduct a peer review.

Step 2: Independent Review

After the peer review, conduct an independent review of estimates. (For example, DSG review.)



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Section 4: Activity Definitions for Estimating Worksheet

Business Case	The Business Case is developed and it describes the root cause of the business need, projected costs and benefits, the value of the solution proposed, and the scope of the business issue and solution. The Business Case must be reviewed by the General Manager.
Formulate Acquisition team to develop Business Case	
Team Members Trained for Acquisition (Awareness Presentation)	This training should consist of the Awareness Presentation prepared by Modernization Partner. It should last approximately 2 hours.
Research for Business Case	The Acquisition team proceeds to assess the needs, costs and possible solutions.
Develop Business Case	
Develop High Level Requirements	
Review by GM	When planning for this phase assume that there will be at least two review cycles with the GM before the Business Case is presented to the DSG.
Develop initial Acquisition Plan	The Acquisition Plan is initially developed at the beginning of the Vision phase of the Software Development Life Cycle (SDLC). It identifies constraints, roles and responsibilities, acquisition strategy, acquisition management key process areas and high-level measures of performance. The Acquisition Plan will be referenced throughout the entire Acquisition Project Lifecycle, and reappears throughout the planning steps listed in this worksheet.
Total Business Case days	Time spent developing the business case can range from 10 days to several months, depending on the SFA management responsible for business case development.
Decision Support Group	The DSG reviews the Business Case, provides feedback and is the working body of the IRB making recommendations to the IRB for Business Case decisions. The DSG typically meets on a weekly basis. Since the Business Case must be reviewed by the DSG, estimate there will be at least one review and possibly more depending on the completeness of the business case.
Preparation	
DSG Review	
Update Business Case as Needed	
Update Acquisition Plan as Needed	
Follow Up	
Total DSG days	The DSG meets once every seven days. The time lag between DSG meetings must be accounted for in time estimates. There have been instances where too many Business Cases were signed up for DSG meetings, and unheard cases were postponed by another week. At least two review cycles by the DSG should be planned for.
Investment Review Board	The DSG submits the Business Case to the IRB for approval. The Business Case may receive full, partial or no funding. The Business Case will have to be updated and resubmitted. These time costs may be substantial and must be accounted for.
Preparation	
IRB Review	
Update Business Case and Acquisition Plan as Needed	
Follow Up	
Total IRB Days	The IRB meets monthly. The schedule of the IRB should be considered in the time estimation, as it can add an extra month into the estimate.
Statement of Objectives	Once the Business Case is approved by the IRB, the Project Team develops a Statement of Objectives. The SOO serves as the basis for work to be completed during the delivery of the solution. The SOO outlines the objectives of the recommended solution and the high level requirements for meeting the objectives.
Developed	
Request for Proposal	
Total SOO days	The time spent between IRB approval and development of the SOO can be considerable. It is suggested that the SOO be developed after the business case is submitted to save time.
Task Order	The task order is created and awarded to the Contractor.
Develop Technical Proposal	
Develop Cost Proposal	
Review Proposal	
Negotiations	
Total Task Order Days	The development of the task order can vary from a minimum of 10 days up to over one month.