

# Procedure for Implementing University of Dayton Bid Decisions on Firm-Fixed Price Contracts Policy

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## Definitions

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### **PROGRAM**

A sponsored research program is an individual contract and is identified by a unique six-digit account number in the Banner financial system.

### **CONTRACT**

A contract is a legal document that binds the University to complete an agreed-upon statement of work at the agreed-upon price, within a specific time frame. Contracts may take the form of subcontracts, agreements, purchase orders, or letters of authorization.

#### **FIRM-FIXED-PRICE (FFP) CONTRACT**

Firm-fixed-price contracts establish a firm price that the University will be paid for performing the work. Compensation is usually established based upon a fixed amount per test or per deliverable, with the principal investigator and parent division/department assuming responsibility for keeping costs within the contract ceiling. This contract type places maximum risk and full responsibility upon the awardee.

Unspent funds do not revert back to the sponsor at the close of the contract; surpluses/cost overruns are transferred to the designated account of the RI division or academic department.

#### **FIRM-FIXED-PRICE LEVEL-OF-EFFORT (LOE) CONTRACT**

A FFP LOE contract requires that (a) the contractor provide a specified level of effort over a stated period on work that can be stated only in general terms; and (b) the Government pay the contractor a fixed dollar amount, based on the effort expended.

#### **FIRM-FIXED PRICE ADVISORY & ASSISTANCE SERVICES (A&AS) CONTRACT**

A FFP A&AS contract includes services acquired from non-governmental sources to support or improve organization policy development, decision making, management and administration, support program and/or project management and administration; provide management and support services for research and development activities; provide engineering and technical support services; or improve the effectiveness of management processes or procedures. Such services may take the form of information, advice, opinions, alternatives, analyses, evaluations, recommendations, training and technical support.

FFP LOE and FFP A&AS contracts have lower risk than other types of FFP contracts because the deliverables are limited to highly predictable items such as reports and/or the agreed-to level of effort. Generally, the risk to the University when performing FFP LOE and FFP A&AS contracts is comparable to the risk associated with cost reimbursement contracts.

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## Procedure

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In the case of an academic department seeking approval for a Firm-Fixed Price Contract, the role of Division Head will be served by the Department Chair and the role of Director – RI, will be served by the Dean.

### **1. Cumulative Obligation for FFP Contracts (excluding FFP-LOE and FFP A&AS Contracts)**

The cumulative obligation for all University of Dayton FFP contracts, excluding FFP LOE & FFP A&AS contracts, shall not exceed \$20 million over the immediate future three-year period, and shall not exceed \$7.5 million over any future 12-month period.

“Obligation” is defined as contracted amount for the time period being considered less monies already paid. Extremely low-risk FFP programs under \$100,000 such as routine testing and analysis are excluded from this restriction. Exceptions to the cumulative/annual limits must be approved by the Director, Research Institute (Director – RI), the Vice President for Research & Executive Director (VP – Research), Research Institute and the Vice President for Finance and Administrative Services (VP – Finance).

### **2. Cumulative Obligation for FFP LOE and FFP A&AS Contracts**

The cumulative obligation for all University of Dayton FFP LOE and FFP A&AS contracts shall not exceed \$30 million over the immediate future three-year period, and shall not exceed \$12 million over any future 12-month period. “Obligation” is defined as contracted amount for the time period being considered less monies already paid. Exceptions to the cumulative/annual limits must be approved by the Director – RI, the VP – Research and VP – Finance.

### **3. FFP Bids (excluding LOE and A&AS)**

#### **a. Less Than or Equal to \$500,000/per year**

- PI will consult with Contracts Office to determine if cumulative/annual FFP obligations are within the limits established in item 1.
- PI will review Guideline Questions and Risk Analysis.
- PI will discuss with Group Leader and Division Head. Division Head must approve via Proposal Preparation Form (PPF).
- PPF will be submitted to Director - RI for approval. Division Head must be prepared to discuss with Director as needed.

#### **b. Between \$500,000 and \$1,000,000/per year**

- Same requirements as item 3a with the additional approval of the VP – Research.

#### **c. Greater than \$1,000,000/per year**

- PI will consult with Contracts Office to determine if cumulative/annual FFP obligations are within the limits established in item 1.
- PI will review and respond to Guideline Questions and conduct written Risk Analysis.
- PI will present and discuss analysis with Group Leader and Division Head. Division Head must approve via PPF.
- Division Head will submit PPF and risk analysis to Director – RI. Division Head

(and PI as needed) will meet with the Director – RI, at the Director’s discretion, to discuss. Director – RI must approve via PPF.

- Director – RI will discuss with VP – Research and VP – Finance for final approval within three working days after approving the PPF. The President of the University will be advised of the proposal.
- If the FFP opportunity exceeds \$3 million/year, concurrence and approval of the bid will be sought from the President of the University.
- If the FFP opportunity exceeds \$5 million/year, a Board of Trustees’ Finance Committee review and concurrence will be advised and longer response times for these larger FFP programs will be necessary.

#### **4. FFP Bids, LOE and FFP A&AS Contracts**

- PI will consult with the Contracts Office to determine if cumulative/annual FFP obligations are within the limits established in item 2.
- PI will review Guideline Questions and Risk Analysis.
- PI will discuss with Group Leader and Division Head. Division Head must approve via PPF.
- PPF will be submitted to Director – RI for approval. Division Head must be prepared to discuss with Director as needed. Director - RI must approve via PPF.
- Director – RI will advise the VP – Research and VP – Finance of LOE or A&AS FFP contract bids that exceed \$1.5M in annual revenue.

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### **Guideline Questions**

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The following questions are intended to guide thinking on some of the non-technical issues that can pose major concerns on FFP programs.

1. Does the University have sufficient experience? – For FFP efforts that the University endeavors on its own or with minimal subcontractor assistance, the University must have sufficient technical experience to understand and effectively manage the program, including skills for recognizing and solving problems. It is recommended that the number of new tasks/activities that the University is not familiar with not exceed 15% of the value of the total program.
2. Do our subcontractors have sufficient experience? – If subcontractors will be used to perform part of the work, their past performance for the University needs to be part of the decision process (risks go up when the performance for the subcontractor is unknown to the University). When we are unfamiliar with a subcontractor, or that subcontractor’s financial position, based on a Dunn and Bradstreet analysis, is questionable, we need to seriously consider whether we should seek a different subcontractor with a known successful history to conduct this portion of the work.
3. Does the University have sufficient control? – To minimize risk and to mitigate loss should mishaps occur, the University needs to assess the following factors for controlling the program and its subcontractors:

- The University must have a significant program role so the Principal Investigator and Division Head can know what is occurring – both within the University and subcontractor organizations.
  - The University must have a sufficiently skilled program manager/PI that has experience in the area of the contract and has demonstrated that he/she can recognize and control risks.
4. Is the program duration reasonable? - Programs that last longer than three years can increase our risk in fixed-price contracts, since the University program management may change or the customer may change, leading to a reinterpretation of program requirements.
  5. Is there sufficient reward? - Sufficient financial incentive must exist for the University; i.e., it is recommended that a minimum of 50% of the contract dollars should be expended at the University if the total contract value exceeds \$750K. There may be other important incentives such as obtaining new capabilities or new customers, but the program must be worthwhile financially. Firm-fixed price “pass-through” contracts with values greater than \$1,000,000 are generally discouraged (The University does not seek to earn its business by skimming off pass-through fees). However, it is understood that when teaming on a large contract or delivery order, it may be necessary to pass through large amounts of funding to a team member. Regardless, serious consideration must be given to the rewards to the University, including the 50% recommendation, for this type of arrangement.
  6. Will cash flow problems arise? - Payments on firm-fixed price contracts are usually made based on performance milestones or deliverables. If the contract is large in dollar value and there is a long lead time, the University may have to invest significant funds before it receives payment. It is possible that this could put considerable stress or even deplete the Advance Payment Pool. Experience has shown that payments by the government are not always timely. Also, if our sub(s) is a small business, the University of Dayton will probably be asked to assist in their cash flow. The University, and the Research Institute, could be called upon to finance performance. Every effort should be made to build up-front and frequent interim payments into the contract to maximize program cash flow.

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## **Risk Analysis**

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A formal risk analysis should be conducted on contracts or orders greater than or equal to \$750,000. The risk analysis basically is a formal way to identify, assess, and mitigate all the possible risks to the program. Although the Guideline Questions identify some of the significant non-technical risks typical of FFP efforts; PIs need to identify all additional risks. Areas of risk to consider include contract, cost, technical, schedule, team, and location. PIs need to construct a risk matrix similar to the attached example, listing all risks, ranking their severity to the program, and developing a risk mitigation strategy for each risk. Group Leaders, Division Heads, and the Director – RI will help assess whether the mitigation strategies are sufficient to reduce the risks to acceptable levels.

## Sample Risk Identification and Mitigation Matrix

Risk Area	Risk Item	Description	Severity	Mitigation Activities	Comments	Mitigated
Contract	FFP	Risks inherent with cost overrun, late delivery, below-spec deliverables	3	Require subs to be bonded. Flow down risk to subs. Evaluate companies involved (stability, commitment, competence), carefully review bid to determine level of built in contingencies	Get info to Contracts & Grants office so they can pursue bonding requirement	
Cost	Payments	FFP typically pays only upon on time, per-spec delivery. But team needs cash up front and as go along to be solvent.	3	Build initial and progress payments into proposal from prime to gov't, and from subs to prime.	Make sure Contracts thinks this will fly with government	
	Estimate	Our lack of familiarity with the equipment to be upgraded makes cost estimate fuzzy – may make us uncompetitive or may give us insufficient resources to complete job	2	Get system expert on team. Discuss at length with him and other team members to ensure reasonable estimate.		
Technical	Hidden Problems	Unknown items beyond SOW that need repaired/replaced to make NRETS operational	2	Query expert on this. Determine reasonable "pad" to costs for minor unexpected items. Put in proposal clauses to limit scope, and declare over-and-above items as extra costs to be paid separately as needed.	Make sure to state exactly what will be done – that is the saving grace of FFP	
Schedule	First Unit Delivery	First working unit due 1 year ARO – is this sufficient time?	2	Work closely with expert to determine reasonableness. Put in "best effort for 1 year delivery" clause in proposal, with promised delivery by xx months.	Team discussions will eliminate/qualify this risk.	
	Long Lead Items	Some components may be long lead items on critical path for completion.	2	Work with expert and rest of team to pull together component list. Call for costs and delivery times. Plan on 50% (?) delay beyond longest quoted time.	Team discussions will eliminate/qualify this risk.	
Team	Track Record	Unfamiliar (?) with team members proven abilities for this work	1	Get past performance data from each team member.	Note that other than the expert we know the team well.	
	Fuzzy Roles	Team member responsibilities not defined. UDRI internal roles unclear	1	Conference calls with team to define roles. Clarify RI roles by writing out and meeting to review/agree.	Roles only fuzzy because technical approach not defined yet. Will be solid when approach and cost defined.	
Geography	Team not co-located	Coordination of activities hampered by having team members dispersed	1	Plan what can be done locally, and what data sharing and configuration control is need to facilitate this. Identify and plan for tasks that must be done in Ogden.	System expert moving to Ogden for duration of program to support effort. With internet, email and phone, this is very low risk.	
RISK LEVEL	3	Severe – Likelihood and consequences high; mitigation requires concentrated effort				
	2	Moderate – Likelihood and consequences – must not ignore; will take effort to mitigate				
	1	Low – Likelihood and/or consequences low; straightforward to mitigate				