

4.0 SUBAWARD: DEFINITIONS, TYPES, DETERMINATION OF REASONABLE COSTS, & FORMAT (04/05)

4.1 Subaward Definitions

For purposes of this procedure, the following definitions apply:

“Subaward means an award of financial assistance in the form of money made under an award (i.e.: grants and other agreements) by a recipient to an eligible subrecipient or by a subrecipient to a lower tier subrecipient. The term includes financial assistance (grants or cooperative agreements) and procurements (contracts) when provided by any legal agreement whether it is called a contract or a purchase order, but does not include procurement of goods and services.”

In general, subawards are used when the intent is to have another organization help carry out a portion of the scope of work described in the proposal and assigned under the subsequent award. It does not matter what the agreement is called (subcontract, subaward, subgrant, etc.), but it is directed as cooperatively working with another entity to carry out the program for which funding has been granted.

A subaward is a complex form of procurement which (1) is generally issued under a WBS element, (2) provides for the acquisition of experimental, developmental or research work, and (3) is generally issued on a cost reimbursement basis.

Subawards may be called subcontracts, subagreements, subrecipient agreements, purchase orders, subgrants, etc., and they may also have the appearance of procurement agreements in format and language. Nevertheless they remain forms of financial acquisition and do not constitute a procurement of goods and services.

Typical subaward situations include arrangements in which two or more qualifying institutions work collaboratively on a sponsored project. Each institution has its own principal investigator; however, one of the collaborating institutions functions as the prime awardee and is the legal contact with the sponsor.

Terms for subawards generally mirror the terms in the prime award to MIT.

For example:

- ◆ The Subawardee has its performance measured against its portion of the scope of work of MIT’s program. [A collaborating organization is responsible for meeting its scope of work.]
- ◆ The Subawardee has responsibility for programmatic decision-making. [The PI at the collaborating organization is responsible for directing its segment.]
- ◆ The Subawardee has responsibility for adherence to applicable program compliance requirements. [As specified in the Subaward document.]

- ◆ The Subawardee uses the funds to carry out a portion of the scope of work of MIT's program as compared to providing goods or services for MIT's program. [A collaborating organization is conducting its own scope of work and is not providing goods or services, such as simply executing lab tests or constructing experimental instrumentation.]
- ◆ The Subawardee's principal investigator/project director may be a co-author on publications or may seek patent protection for inventions.

A key distinction with respect to a subaward is that of intellectual property. Title to intellectual property created by subawardee is normally retained by the subawardee when it is a small business or another institution of higher education. This complies with requirements of the Bayh-Dole Act which controls the ownership and management of intellectual property on federally funded projects.

4.2 Subaward Type

Circumstances dictate the subaward contractual arrangements, which are grouped into two broad categories: **cost reimbursement** subawards and **fixed price** subawards. The, specific subaward types range from **cost plus fixed fee**, under which the subawardee has minimal responsibility for performance costs and the negotiated fee (profit) is fixed, to **firm fixed price**, under which the subawardee has full responsibility for performance costs and resulting profit (or loss).

The most common subaward type MIT utilizes is a cost contract, which is a cost reimbursement type of subaward with no fee. Generally, MIT issues the cost reimbursable type award to educational institutions, hospitals and other non-profits entities.

Following is a list of the most common to least common type of subaward MIT issues:

Cost Reimbursement

- Cost Contract
- Cost Plus Fixed Fee

Fixed Price

- Firm Fixed Price
- Firm Fixed Price, Level of Effort
- Fixed Price Subject to Adjustment

Other Subaward Types

- Time and Materials
- Labor Hour

4.2.1 Cost Reimbursement Subawards

- a. A cost reimbursement type subaward is suitable for use when the work to be performed cannot be described or estimated precisely. As a result, the level of subawardee effort cannot be identified and agreed upon in advance of performance, and the subawardee is unable to estimate the cost of work with sufficient reasonableness and certainty to permit a fixed price arrangement. When there is such uncertainty, the use of the cost reimbursement arrangement is generally more practical because it is tailored to facilitate (1) design changes, and (2) redirection of subawardee effort. It may also be more economical since a subawardee's fixed price proposal for such work might well be weighted to protect against the risk of having underestimated the level of effort required to successfully complete the work.
- b. The cost reimbursement type subaward provides for payment to the subawardee of reasonable costs incurred in connection with the performance of work, not to exceed the amount set forth in the subaward, if required.
- c. The subawardee's accounting system must be adequate for and the subawardee must agree to maintain sufficient accounting records of all direct and facilities and administrative costs claimed under the subaward. These records are subject to audit by the Institute, the Government (if federally sponsored research), or both, during or after the effective period of the subaward.
- e. Types of Cost Reimbursement Subawards
 1. Cost Contract
 - (a) The cost subaward provides for payment to the subrecipient of costs incurred in connection with the performance of work. Under this arrangement the subawardee receives no fee (profit).
 - (b) The cost subaward is most appropriate for research and development work performed by educational and other nonprofit organizations.
 - (c) The cost subaward is identical to the cost plus fixed fee (see subsection 3 below) subaward in (i) utilization of fixed or provisional billing rates, and (ii) method of reimbursement.
 - (d) The cost subaward may at times involve cost sharing. A subaward involving cost sharing provides for payment to the subawardee of an agreed portion of the costs incurred in connection with the performance of

work. Under this arrangement the subawardee also receives no fee (profit).

2. Cost Plus Fixed Fee

(a) The cost plus fixed fee subaward provides for payment to the subawardee of (i) allowable costs incurred in connection with the performance of work, and (ii) a fixed fee (profit).

(b) The fee is negotiated and fixed once the work to be performed and the estimated total cost of performance have been agreed upon. The fixed fee is not subject to adjustment (increase or decrease) when the actual cost of full and satisfactory performance of work is more or less than that originally agreed upon as the result of (i) overestimate of cost of performance, (ii) underestimate of cost of performance, or (iii) establishment of allowable cost on the basis of audit. The fixed fee becomes subject to increase or decrease as the result of adjustment in the scope of work, or in the event of less than full performance of work (decrease).

(c) The cost plus fixed fee subaward provides for reimbursement, usually monthly, to the subawardee of allowable costs (direct labor, overhead, materials, other direct charges, and G & A) incurred in connection with the performance of work, plus payment of a proportionate amount of fixed fee. Reimbursement is based on invoices or vouchers submitted by the subawardee that contain billing rates (labor and burden) proposed by the subawardee and found or considered acceptable by the Institute. Unless negotiated and incorporated into the subaward as fixed billing rates, such billing rates apply provisionally until actual rates have been determined by audit or negotiation. Payments made on the basis of provisional billing rates are subject to increase or decrease as the result of audit and the establishment of actual rates or as the result of negotiation and the establishment of agreed upon rates.

(d) The cost plus fixed fee subaward can be written as a (i) Completion or (ii) Term form subaward.

(i) Completion Form

Describes the scope of work as a clearly defined task with a definite goal expressed, and with a specific end-product required (a final report of research accomplishing the goal is acceptable as a deliverable item).

Most useful when the uncertainties of performance make the use of a fixed price arrangement impractical.

(ii) Term Form

Describes the scope of work to be performed in general terms and obligates the subawardee to devote a specific level of effort (hours of labor) for a stated period of time. Payment of the entire fixed fee is generally conditional upon satisfactory completion of the specified level of effort within the effective period of the subaward.

Suitable for use for support type effort as opposed to deliverable items.

4.2.2 Fixed Price Subawards

a. Firm Fixed Price

1. The firm fixed price subaward provides for a price which is not subject to adjustment by reason of the cost experience of the subawardee in the performance of the subaward, provided changes to the original scope of work which serve to increase or decrease the scope of work are not instituted by MIT. This type of subaward places maximum risk upon the subawardee. Because the subawardee assumes full responsibility, in the form of profits or losses, for all costs under or over the firm fixed price, the subawardee has a maximum profit incentive for effective cost control and subaward performance.

2. The firm fixed price subaward imposes a minimum administrative burden on the subawardee and the Institute because detailed accounts of direct and indirect costs are not required as is the case in cost reimbursement type arrangements.

3. The firm fixed price subaward is particularly suitable for the purchase of commercial or modified commercial items, and other items (goods and services) for which sound prices, which are fair and reasonable, can be developed at the outset, such as when:

(a) Effective price competition results in realistic pricing.

(b) Realistic price comparisons can be made with prior purchases of the same or similar items (see Price Analysis - Procedure 4.3.2.3).

(c) Cost or pricing details are available and permit the development of realistic estimates of the probable costs of performance (see Cost Analysis - Procedure 4.3.2.3).

(d) The uncertainties involved in subaward performance can be identified in advance and reasonable estimates of their probable impact on costs can be made in advance, and the subawardee is willing to accept the risks of a firm fixed price subaward.

(e) The firm fixed price subaward is particularly suitable for Institute use, and is being used for the majority of institute purchases.

b. Firm Fixed Price, Level of Effort (Reference: FAR 16.207)

A firm fixed price contract requiring (1) the contractor to provide a specified level of effort over a stated period of time, on work that can be stated only in general terms; and (2) MIT to pay the contractor a fixed dollar amount.

Such a contract is suitable for investigation or study in a specific research and development area. The product of the contract is usually a report showing the results achieved through application of the required level of effort.

Payment is based on the effort expended rather than the results achieved.

Fixed-price level-of-effort contracts may be used only when:

- (1) the work required cannot otherwise be clearly defined
- (2) the required level of effort is identified and agreed upon in advance
- (3) there is reasonable assurance that the intended result cannot be achieved by expending less than the stipulated effort, and
- (4) the contract price is \$100,000 or less.

c. Fixed Price Subject to Adjustment

1. The fixed price subaward that is subject to price adjustment contains provisions that provide for the upward or downward revision of the subaward price on the occurrence of significant and uncontrollable contingencies during the performance period of the subaward. Examples of such contingencies are:

(a) Serious doubt as to the stability of market or labor conditions (materials and labor costs) that will exist under a long-term subaward.

(b) Uncertainty as to the actual quantity of goods and services that will be purchased under a long-term subaward (and the subawardee offers levels of prices based on total quantity purchased).

2. With provisions for price adjustment in a subaward, should the occurrence of the contingencies increase the price (or unit prices), the subawardee is protected and the subaward price (or unit prices) is adjusted upward. Should the occurrence of the contingencies decrease the subaward price (or unit prices), the subaward price (or unit prices) is reduced and the Institute benefits.
3. When price adjustment provisions for market or labor conditions are included in a subaward:
 - (a) A ceiling (usually not greater than 10%) should be placed upon any upward adjustment. Downward adjustment is not so limited.
 - (b) Firm fixed prices should be negotiated for the initial period of the subaward term. The initial period should be the longest period for which it is possible to negotiate fair and reasonable firm fixed pricing prior to the anticipated occurrence of contingencies that may impact price.
4. A requisition for a fixed price subaward that is intended to contain price adjustment provisions should be carefully coordinated with the subaward administrator to ensure that adjustment provisions that are appropriate to the subaward are negotiated, agreed upon in advance, and incorporated in the original subaward.

4.2.3 Other Subaward Types

a. Time and Materials

1. Under a time and materials subaward the subawardee is reimbursed for (i) labor expended, at the fixed hourly rate(s) of compensation specified in the subaward, and (ii) materials and outside services purchased for performance under the subaward, at cost, or at cost marked up by an agreed handling charge.
2. The time and materials subaward is not a cost reimbursement arrangement. It is described here because of a similarity in the processing and administration of this type subaward and the cost reimbursement varieties.
3. The fixed hourly rate(s) of compensation specified in the subaward includes the subawardee's cost of direct labor (hourly rate of compensation paid by subawardee to employee or employee category), (ii) burden, and (iii) profit factor.

4. A proposed hourly rate of compensation may be negotiated as fixed on the basis of (i) competition, (ii) price analysis, (iii) cost analysis, or (iv) combinations of (i) through (iii).

(i) Competition - when a rate proposed by one subawardee for a particular employee category is competitive with the rate proposed by another subawardee for the same employee category.

(ii) Price Analysis - when a rate proposed by a subawardee for a particular employee category is competitive with the rate known to be charged by other subawardees for the same or similar employee category.

(iii) Cost Analysis - the review, evaluation, analysis and negotiation (if required) of each of the elements of the subawardee's proposed rate.

5. Payments (usually monthly) under a time and materials subaward are based on invoices or vouchers submitted by the subawardee on which are indicated (i) the number of direct labor hours of work performed at the fixed hourly rate(s) of compensation specified in the subaward, and (ii) materials and outside services purchased, at cost or at cost marked up by the agreed handling charge. The subaward must require that invoices itemize the number of labor hours expended each week by the employee or employee category specified in the subaward, and the invoices must conform. Charges for material handling and travel (within the limits set forth in the subaward) may be included on invoices if provisions for payment of such costs are contained in the subaward. If such charges are included appropriate back-up detail in the form of paid receipts and copies of paid invoices must be submitted with the invoice.

6. The time and materials subaward is most appropriate for procurement of engineering and design services, to be performed either at the Institute or the subawardee's facilities, when it is not possible at the time of placing the subaward to estimate the extent or duration of the work. Since the total cost of performance is difficult to estimate, a ceiling price is indicated in the subaward that the subawardee may not exceed.

7. Use of this type subaward does not encourage effective cost control by the subawardee, particularly when a firm ceiling price is not agreed upon in advance.

b. Labor Hour

1. Under a labor hour subaward the subawardee is reimbursed for labor expended, at the fixed hourly rate(s) of compensation specified in the subaward.
2. The labor hour subaward is a variation of the time and materials subaward, differing only in that materials are not supplied by the subawardee. With this exception, it is identical to the time and materials type subaward in (i) utilization of fixed rates of compensation, (ii) method of reimbursement, and (iii) the situations in which its use is most appropriate.

4.3 Cost Reimbursement Subawards: Determination of Reasonable Cost

If the cost reimbursement subaward is issued under a federal government financial assistance award then the procedures of 4.3.1 will apply. If the cost reimbursement subaward is issued under a federal government contract prime award then the procedures of 4.3.2 will apply.

4.3.1 Cost Reimbursement Subaward: Federal Government Financial Assistance Award

4.3.1.1 Regulations

If the cost reimbursement prime award is a federal government financial assistance award, then the subaward administrator will be guided by the principles and procedures set forth in the following publications in the negotiation of subawards:

- a. Applicable Federal Regulations
- b. Terms and conditions of the prime financial assistance award
- c. MIT Policies and Procedures

4.3.1.2 Cost Realism Study

- a. A cost realism study will be conducted on all cost reimbursement financial assistance awards to determine that the cost estimates submitted are an accurate reflection of probable costs of performance.

Cost realism analysis involves a summary level review of the costs portion of the subawardee's proposal to determine if they (1) are realistic for the work to be performed; (2) reflect a clear understanding of the requirements; and (3) are consistent with the various elements of the subrecipient's technical proposal. Cost realism analysis includes:

1. Cost realism analysis of direct labor costs is performed by reviewing the labor hours proposed by the subawardee as well as the labor rates that will be applied to the various categories of direct labor used on the proposed contract.

The opinion and advice of the cognizant MIT scientists/ engineers with respect to proposed hours and types of labor; quantity, quality and types of materials; computer use; etc. being proper for the effort envisioned.

2. Cost realism analysis of material costs is performed by reviewing:

- (a) Bill of material
- (b) Back-up data on the major items
- (c) Prior effort/historical data
- (d) Statement of work
- (e) Government approved purchasing system

3. Cost realism analysis of other direct costs is performed by reviewing:

- (a) Back-up data on the major items
- (b) Travel costs budget
- (c) Consultant costs and is it required for the statement of work
- (d) Basis for escalation factors used
- (e) Costs are consistent with stated practices
- (f) Special tooling/equipment required for the statement of work
- (g) Whether costs are based on prior effort/historical data

4. Verification of overhead rates proposed with the subawardee's cognizant federal audit agency per telephone or by checking the subawardee's current approved rate agreement.

The extent of cost realism analysis performed should be that necessary to assure reasonableness of the estimated costs, taking into consideration the dollar value of the proposed subaward and the cost and time needed to accumulate the necessary data for analysis.

4.3.1.3 Record of Subaward

At the conclusion of each review, the subaward administrator shall promptly prepare a memorandum for the files including the following:

- a. A description of the services and deliverables to be called for by the subaward.
- b. Identification of the proposed subrecipient and an explanation of why and how the proposed subrecipient was selected.
- c. The proposed subaward estimated costs, together with the cost realism analysis thereof. Reference: Form 4.3A entitled RSO Cost Reasonableness Checklist.
- d. Identification of the type of subaward to be used.
- e. Details concerning the principal elements of the subaward cost.

4.3.2 Cost Reimbursement Subaward: Federal Government Contract Prime Award

4.3.2.1 Regulations

If the cost reimbursement prime award is a federal government contract, then the subaward administrator will be guided by the principles and procedures set forth in the following publications in the negotiation of subawards:

- a. Applicable Federal Regulations (i.e.: FAR Regulations)
- b. Terms and conditions of the prime financial assistance award
- c. MIT Policies and Procedures

4.3.2.2 Cost or Pricing Data

If a subaward exceeding \$550,000 is to be issued under a federal government contract prime award, MIT must be in compliance with Public Law 87-653 Truth in Negotiations. [The Public Law has been implemented in the United States Code of Federal Regulations 10 U.S.C. 2306a (Armed Forces) and 41 U.S.C. 254b (Public Contracts) and in the Federal Acquisition Regulation Part 15 and Clause No. 52.215-12.].

The Public Law 87-653 Truth in Negotiations is a requirement for cost or pricing data and certification for any subaward expected to exceed \$550,000. The subawardee is required to submit cost or pricing data prior to the award of the subaward unless one of the following exceptions apply:

- When the subaward administrator determines that prices agreed upon are based on adequate price competition.
- When the subaward administrator determines that prices agreed upon are based on prices set by law or regulation.
- When a commercial item is being acquired.
- When a waiver for cost or pricing data has been granted by the government contracting officer under the prime award.
- When modifying a contract or subaward for commercial items.

Cost or pricing data shall be obtained if the subaward administrator concludes that none of the exceptions above applies. When cost or pricing data are required, the subaward administrator shall require the subawardee to submit the following in support of any proposal:

Cost or pricing data (See FAR Clause No.15.408 Table 15-2 for guidance).

A certificate of current cost or pricing data, certifying that to the best of its knowledge and belief, the cost and pricing data were accurate, complete, and current as of the date of agreement on price or, if applicable, an earlier date agreed upon between the parties that is as close as practicable to the date of agreement on price. (See FAR Clause No. 15.406-2 for format.)

NOTE: Cost or pricing data shall not be obtained for acquisitions at or below the simplified acquisition threshold.

4.3.2.3 Cost, Price and Profit Analysis

- a. An appropriate level of cost analysis (and negotiation if determined necessary to establish reasonable costs and fee or prices) is required as a basis for placing:
 1. Cost reimbursement subawards and most high dollar cost reimbursement type purchase orders (time and materials and labor hour), irrespective of the competition, which may have been obtained.
 2. Sole source high dollar fixed price subawards issued for nonstandard items when a favorable price analysis is not possible.
 3. There are several evaluation methods that can be utilized in conducting the cost, price and profit analysis. They are:
 - Cost Analysis (Direct/Indirect Cost)
 - Price Analysis

- Profit Analysis (Weighted Guidelines)
- Cost Realism Study

(a) Cost analysis is the review, evaluation and analysis of each of the elements of the subawardee's cost proposal, including lower-tier subawards and purchase orders proposed. Cost analysis includes:

1. Appropriate verification of cost data by means of audit performed by the MIT Audit Division or the subawardee's cognizant federal audit agency.
2. In lieu of audit, verification of burden and labor rates proposed, and other cost elements proposed which are capable of verification, with the subawardee's cognizant federal audit agency.
3. The opinion and advice of the cognizant MIT scientists/ engineers with respect to proposed hours and types of labor; quantity, quality and types of materials; computer use; etc. being proper for the effort envisioned.

The extent of cost analysis performed should be that necessary to assure reasonableness of the estimated costs and fee or prices, taking into consideration the dollar value of the proposed subaward and the cost and time needed to accumulate the necessary data for analysis.

(b) Price Analysis is the process of examining and evaluating a prospective price without performing cost analysis; that is without evaluating the separate cost elements and profit of the subawardee included in the proposal. Price analysis can be used for the analysis of the materials portion of cost reimbursement proposals where there is adequate price history.

(c) Weighted guidelines is a structured technique for establishing the subaward administrator's negotiating position on profit. The technique is also used as a basis for documenting and explaining the final agreement reached between MIT and the subawardee. The weighted guidelines method ensures consideration of the relative value of appropriate profit factors, including the subawardee's degree of performance risk, subawardee's cost controls, the risk imposed on the subawardee by the type of award, facilities investment, and working capital.

(d) Cost realism study is the process of independently reviewing and evaluating specific elements of the subawardee's proposed cost to determine whether the estimated proposed cost elements are realistic for the work to be performed, reflect a clear understanding of the requirements, and are consistent with the various elements of the

subawardee's technical proposal. Further details of a cost realism study are provided in OSP RSO Policies and Procedure 4.3.1.2.

4.3.2.4 Record of Negotiation

At the conclusion of each negotiation, the subaward administrator shall promptly prepare a memorandum for the files including the following:

- a. A description of the services and deliverables to be called for by the subaward.
- b. Identification of the proposed subawardee and an explanation of why and how the proposed subawardee was selected, including the degree of competition obtained.
- c. The proposed subaward estimated costs, together with the cost or price analysis thereof.
- d. Identification of the type of subaward to be used.
- e. Details concerning the principal elements of the subaward costs and fee or prices negotiated.

4.4 Cost Reimbursement Subawards: Format

Special processing of a cost reimbursement subaward depends on the nature of the award, the requirements of the prime award under which it will be issued, the considerations and negotiations of the MIT technical representative and subaward administrator, these subaward policies and procedures, and the applicable federal procurement regulations.

4.4.1 Subaward Articles

The subaward is generally subdivided into several articles. Each article is subdivided into numbered paragraphs and subparagraphs.

ARTICLE 1 - SCOPE OF WORK

ARTICLE 2 - PERIOD OF PERFORMANCE

ARTICLE 3 – AWARD AMOUNT

ARTICLE 4 – KEY PERSONNEL

ARTICLE 5 – FISCAL CONSIDERATIONS

ARTICLE 6 – REPORTING REQUIREMENTS

ARTICLE 7 – COMPLIANCE ASSURANCES AND CERTIFICATES

ARTICLE 8 – INTELLECTUAL PROPERTY

ARTICLE 9 – DATA RIGHTS

ARTICLE 10 – EQUIPMENT, ACCOUNTABILITY AND DISPOSITION

ARTICLE 11 – ACCOUNTING, RECORDS, AND AUDIT

ARTICLE 12 – INDEPENDENT CONTRACTOR

ARTICLE 13 – INDEMNIFICATION

ARTICLE 14 – ASSIGNMENT

ARTICLE 15 – NOTICES

ARTICLE 16 – TERMINATION

ARTICLE 17 – DISPUTES

ARTICLE 18 – AMENDMENT

ARTICLE 19 – FREEDOM OF INFORMATION ACT REQUESTS

ARTICLE 20 – ADDITIONAL PROVISIONS (i.e.: FAR REGULATIONS)

ARTICLE 21 - SIGNATORIES

- A. Articles 1 through 6 and 10 through 18 are, for the most part, originated by the subaward administrator to satisfy the subaward situation.
- B. Article 7, 8, 9 and 19 and 20 are generally standard “boilerplate” which incorporates the prime award clauses, which must be incorporated in lower tier subawards.
- C. Article 21 entitled signatories must be executed (bilateral) on all subawards.
- D. The format described above is most appropriate for cost reimbursement subawards.
 - 1. This format may be altered by subaward administrators to suit the requirements of individual awards.
 - 2. This format may be modified and used for a time and material, labor hour or fixed/lot price subaward.
 - 3. Subawards issued under a prime award contract, grant, cooperative agreement, memorandum of agreement, other transactions, etc. may also be used with this format, modified as required, or in place of this format.

4.4.2 Subaward Templates

There are various sample subaward templates available located on the OSP network at:
P Drive>Masters>Subcontracts>Subaward Templates

Subaward administrators should use these templates, modified as required to suit individual subaward arrangements.