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Chapter 5—Cost Accounting

5.1—Allocation Bases, Generally

As discussed in Chapter 4, allocation bases are used to assign/allocate certain overhead or other indirect costs to final cost objectives (projects). There are various allocation bases commonly used in cost accounting systems for allocating indirect costs; however, for engineering contracts administered by State DOTs, *direct labor cost* is the most frequently used base. Whatever base is used for cost allocation, it should be *consistent* for all contracts. Some of the common methods are discussed below.

A. Direct Labor Cost

Direct labor cost is the allocation base most commonly used to assign indirect costs to contracts. Direct labor costs generally are computed by multiplying all direct project labor hours by labor rates, as summarized for all employees within the applicable allocation unit. Labor rates are based on actual employee wages incurred, and indirect costs are allocated to projects by multiplying the indirect cost rate by the direct labor cost incurred to complete the projects.

B. Direct Labor Hours

Indirect costs also may be allocated based on direct labor *hours*, instead of *cost*. When using this method, indirect costs are allocated to projects by multiplying the indirect cost rate by the direct labor hours incurred to complete the projects.

C. Total Labor Hours (Total Hours Worked)

This method is similar to the Direct Labor Hours allocation base, except that the base includes all hours incurred for direct and indirect activities. Use of this base assumes that costs incurred benefit both direct and indirect objectives and should be allocated to the appropriate cost objective receiving a benefit, as determined by the proportional number of hours assigned to that cost objective.

D. Total Cost Input

This base frequently is used to allocate General and Administrative (G&A) costs. The base consists of direct labor, fringe benefits, overhead costs, associated non-salary direct expenses (including other costs sometimes referred to as “internal direct expenses”) and subcontract costs.

E. Total Cost Value Added

This base is similar to the Total Cost Input base. However, the Total Cost Value Added base excludes materials (used primarily in production only) and subcontract costs, as distortion in allocations may occur due to a disproportionate amount of subcontract costs or materials in the pool.

F. Consumption/Usage

This method allocates costs to direct or indirect activities on a common unit, usually time or quantity used. For instance, an internal cost pool such as one for computer-aided drafting and design equipment (CADD) costs can be allocated specifically as a direct cost to a project or as an indirect cost based on the number of hours actually incurred.

5.2—Accounting for Unallowable Costs in Allocation Bases

[References: FAR 31.201-6, CAS 405-40(e)]

FAR 31.201-6 expressly requires engineering consultants to comply with CAS 405 to account for unallowable costs. CAS 405-40(e) provides that all unallowable costs “shall be subject to the same cost accounting principles governing cost allocability as allowable costs.”

CAS 405-40(e) further specifies that:

In circumstances where these unallowable costs normally would be part of a regular indirect-cost allocation base or bases, they shall remain in such base or bases. Where a directly associated cost is part of a category of costs normally included in an indirect-cost pool that will be allocated over a base containing the unallowable cost with which it is associated, such a directly associated cost shall be retained in the indirect-cost pool and be allocated through the regular allocation process.

Note: Allocation bases contain allowable and unallowable costs, but indirect cost pools must be purged of unallowable costs. Additionally, regardless of whether State DOTs contractually limit the amount of direct labor that may be reimbursed on a contract, the engineering consultant’s direct labor base must remain as allocated per the consultant’s job cost system, and the direct labor base should not be adjusted for unallowable costs. A direct labor base should not be reduced for any excess compensation adjustments, but should have allocated to it the allowable overhead in accordance with FAR 31.203(d), which provides that:

“Once an appropriate base for allocating indirect costs has been accepted, the contractor shall not fragment the base by removing individual elements. All items properly includable in an indirect cost base shall bear a pro rata share of indirect costs irrespective of their acceptance as Government contract costs. For example, when a cost input base is used for the allocation of G&A costs, the contractor shall include in the base all items that would properly be part of the cost input base, whether allowable or unallowable, and these items shall bear their pro rata share of G&A costs.”

EXAMPLE 5-1.

Sample Design Firm incurred \$2.5 million in direct labor, of which \$500,000 was not billable to contracts. The total \$2.5 million must remain in the direct labor base, which will then be used to allocate the allowable indirect costs.

5.3—Cost Centers

Cost centers are established to accumulate and segregate costs associated with a single purpose. The costs are then assigned to cost objectives (projects) based on unit charges/consumption rates. For example, engineering consultants frequently compute unit charges for cost categories such as CADD, in-house printing, computers, and company vehicles. When establishing a cost center, the goal should be to estimate a unit charge that will minimize variances resulting from over- or under-applied costs.

Although some accounting systems will attempt to adjust unit charge rates throughout the year as actual costs become known, it is more common for the cost variances to be handled as an adjustment to the overhead cost pool, which is where the costs would have been allocated if they had not been directed to the cost center. However, if the over- or under-allocation is significant, then it may be necessary to adjust the contract/project charges.

Some firms do not create cost centers; instead, they estimate the cost of providing certain services by computing unit rates based on certain elements from general ledger accounts (e.g., automobile depreciation from a depreciation account). Once established, these unit charges are offset to overhead as “credit backs” or cost recoveries for allocated direct costs as they are incurred on projects. This type of costing is less precise and should not be used if the unit charges being accumulated are significant to the firm’s overall operation. If handled on a direct-cost basis, the direct cost rates must be supported and audited. The burden is on the engineering consultant to prove the direct cost rates and that direct costs

were properly removed from the indirect cost pool. The overhead audit should include disclosure notes regarding the audited direct cost rates and a listing of cost categories that the engineering consultant charges direct. See Chapter 10 for testing guidance and Chapter 11 for disclosure guidance.

Note: Firms that do create costs centers generally capture costs either by business activity (functional cost centers) or based on the firm's organizational structure, as discussed below.

A. Functional Cost Centers

This method segregates costs unique to a business activity, typically for purposes of direct costing.

B. Subsidiaries, Affiliates, Divisions, and Geographic Locations

Another method of accumulating and segregating costs is focused on the corporate structure. Some examples of cost centers used for accumulating costs are groupings of regional offices, specific subsidiaries, affiliates, divisions, or field offices.

5.4—Allocated Costs

A. Generally

Indirect costs should be accumulated by logical (homogeneous) cost groupings (pools), with due consideration of the reasons for incurring such costs, allocated to cost objectives in reasonable proportion to the beneficial and causal relationship of the pool costs to final cost objective (see FAR 31.203(c)). The auditor should make a thorough study of the indirect cost activity, including activity bases used for allocation and the cost allocated, to determine whether the activity base chosen by the engineering consultant is appropriate for cost allocation and results in a reasonable measure of the activity. The base should:

- be a reasonable measure of the activity;
- be measurable without undue expense, and, except for G&A expense;
- should fluctuate concurrently with the activity that generates the costs.

When an engineering consultant's activities are decentralized, the use of separate indirect cost rates for each geographic location will normally produce more equitable allocation of indirect costs than the use of composite or company-wide rates. Overhead rates determined for offsite/field activities should be based on eliminating from the overhead pool those types of indirect costs that do not benefit offsite activities. For example, occupancy costs may be eliminated from offsite pools because the engineering consultant uses Government facilities.

B. Fringe Benefits

Fringe benefits include costs for employee perquisites and costs associated with the employer's portion of payroll taxes and employment benefits. Such costs generally include, but are not limited to, payroll taxes, pension plan contributions, paid time off, medical insurance costs, life insurance, and certain employee welfare expenses.

C. Overhead

Overhead costs are costs that may benefit, or are associated with, two or more business activities, but are not specifically allocated to an activity for reasons of practicality. Overhead differs from general and administrative costs (see discussion below) because overhead can be associated with a business unit, based on relative benefit. Some examples of overhead costs include rent, depreciation, employee recruitment and training, and general or professional insurance policy costs.

D. General and Administrative (G&A)

G&A expenses generally comprise all costs associated with business operations that cannot be specifically identified with a smaller unit of business activities. For example, certain management or administration costs that are incurred for an entire business unit may be considered G&A, but other accounting or legal costs benefiting a segment of the business may be considered part of the overhead pool of that specific business segment.

E. Internally-Allocated Costs (Company-Owned Assets)

1. Computer/CADD Costs

Generally, this cost center includes costs such as equipment depreciation or rental; software (including license costs); employee training costs on new software; equipment maintenance; cost of special facilities or locations; and systems development labor or support costs.

2. Fleet or Company Vehicles

For the most part, these are costs associated with company vehicles such as cars, survey trucks, and vans that may be used for a direct or indirect cost objective. Costs in this center may include depreciation, lease costs, maintenance, insurance, and operation costs such as fuel.

3. Equipment

Costs accumulated to this center are similar to both computer and company vehicle pools. Company equipment can be a wide variety of items from small to large that are used in various activities. Some examples include nuclear density meters, GPS equipment, and traffic counting machines.

4. Printing/Copying/Plan Reproduction

Costs in this center are generally associated with reproduction from a single page copied to multiple prints of large specialized drawings or blue prints. In most cases, this cost center includes equipment, labor, ink or toner, and paper supplies.

No final cost objective shall have allocated to it as a direct cost any cost, if other costs incurred for the same purpose in like circumstances have been included in any indirect cost pool to be allocated to that or any other final cost objective.

Note: *The "Like-Cost" Issue.*

FAR 31.202(a) provides that "[n]o final cost objective shall have allocated to it as a direct cost any cost, if other costs incurred for the same purpose in like circumstances have been included in any indirect cost pool to be allocated to that or any other final cost objective."

*Like-cost categories should be allocated consistently in the accounting system. As an example, employee personal vehicle mileage must be allocated to similar cost objectives in the same manner as company vehicle mileage. One category of like costs may **not** be allocated directly to contracts while the related like cost category are recovered as part of the indirect cost rate.⁹*

F. Internal Labor Costs

1. Direct Labor

Labor costs are usually the most significant costs incurred by design and engineering firms in the performance of Government contracts. Incurred labor costs form the basis for estimating labor for future contracts. Therefore, it is imperative that engineering consultants establish and maintain a proper, accurate system of internal control over the labor-charging function.

Unlike other items of cost, labor is not supported by external documentation or physical evidence to provide an independent check or balance. The key link in any sound labor charging system is the individual employee. It is critical to labor charging internal control systems that management fully indoctrinate employees on their independent responsibility for accurately recording time charges. This is the single most important feature management can emphasize in recognizing its responsibility to owners, creditors, and customers to guard against fraud, waste, and significant errors in the labor charging functions.

An adequate labor accounting system, manual or electronic, will create an audit trail whenever an employee creates a timesheet entry. A system that allows an audit trail to be destroyed is inadequate because the integrity of the system can be easily compromised. Access to timesheets should be controlled and preprinted, if possible, with the employee's name, number and fiscal week. An inadequate system

⁹ Note: Other common like-cost categories include computers and telephones.

would allow employees to erase prior entries without recording the adjustment. Employees should initial all time sheet changes and adjustments should be maintained as part of the audit trail.

The engineering consultant should have procedures to ensure that labor hours are accurately recorded and that any corrections to timekeeping records are documented, including appropriate authorizations and approvals. When evaluating the engineering consultant's timekeeping procedures, the auditor should consider whether the procedures are adequate to maintain the integrity of the timekeeping system.

The engineering consultant should have policies and procedures for training employees to ensure that all employees are aware of the importance of proper time charging.

Note: See Chapter 6 for further discussion of Labor-Charging System requirements.

2. Uncompensated Overtime for Salaried Employees

Engineering consultants may not be required to pay overtime to salaried employees for hours worked in excess of 40 hours per week. Any unpaid hours worked by salaried employees in excess of the normal 40 hours per week are commonly called "uncompensated overtime."

To ensure the proper allocation/distribution of labor costs, the engineering consultant must establish procedures requiring the consistent recording and accounting for hours worked, whether paid or unpaid. This is necessary because labor rates and labor overhead costs can be affected by total hours worked, not just paid hours worked.

Per DCAA CAM Section 6-410.3.d:

If it is determined that Government contracts are being over charged by a material amount due to an inequitable allocation of costs because the contractor does not record all time worked, the contractor should be cited as being in noncompliance with FAR 31.201-4 and CAS 418. Any material excess allocation of costs to Government contracts should be questioned or disapproved as applicable. Materiality is the governing factor when determining whether noncompliances should be cited and whether a contractor should be required to implement a total-hour accounting system.

For firms with material amounts of uncompensated overtime labor, it is necessary to apply an adjustment to minimize the risk that Government projects will absorb disproportionate amounts of direct labor costs. This may be accomplished through either of the following common methods, or any other equitable method, so long as the method applied is consistently from year to year, and the methodology is reasonable and supportable:

1. **Effective Rate Method.** Using this method, effective hourly pay rates are computed weekly, based on actual time charges. This would require the client to divide each employee's total weekly salary by their respective hours worked, which would result in variable wage rates being charged to contracts. For example, if Employee Smith is paid \$1,400 per week and works 40 hours per week, then Smith's effective hourly wage rate is \$35. By contrast, if Smith actually works 55 hours in week 1 and 50 hours in week 2, then his effective wage rates are \$25.45 and \$28, respectively. Billings on Government contracts would be limited to the effective rates.

2. **Salary Variance Method.** Under this method, overhead is reduced for the appropriate portion of labor costs generated by uncompensated overtime hours. The calculation may be completed one of two ways, based on the engineering consultant’s use of standard or effective hourly rates. Standard rates are computed as the total paid labor cost compared to total paid hours (e.g., weekly pay divided by 40 hours, or annual pay divided by 2,080 hours).

(a) *Standard Wage Rates:* If the engineering consultant records labor at standard rates, then at year end the overhead cost pool must be reduced by the number of uncompensated hours multiplied by the standard wage rate. For example, if Employee Smith earns \$72,800, then his standard hourly wage rate is \$35.¹⁰ If Smith actually works 2,600 hours during the year, then there are 520 hours of uncompensated overtime.¹¹ Accordingly, the indirect cost pool must be reduced by \$18,200.¹² This example is illustrated below in Table 5-1.

Table 5-1. Salary Variance Method—Standard Rate Example

<u>Employee</u>	<u>Direct Hours</u>	<u>Indirect Hours</u>	<u>Hours Worked</u>	<u>Annual Salary</u>	<u>Standard</u>	<u>Direct Labor</u>	<u>Indirect Labor</u>	<u>Labor Variance</u>	<u>Total Labor</u>
					<u>Hourly Rate</u>				
Smith	2,000	600	2,600	\$ 72,800	\$ 35	\$ 70,000	\$ 21,000	\$ (18,200)	\$ 72,800
Ending Direct Labor:			\$ 70,000						
Ending Indirect Labor:			\$ 2,800	(\$21,000 - \$18,200)					

(b) *Effective Wage Rates:* If the engineering consultant records labor at effective hourly rates, then at year end the overhead cost pool must be reduced, and the direct labor base must be increased, by the number of direct labor hours multiplied by the difference between the standard and effective hourly rates. For example, if Employee Smith earns \$72,800 working 2,600 hours during the year, his effective rate is \$28. If 2,000 of Smith’s hours were spent on direct projects, the indirect cost pool must be reduced and direct labor base increased by \$14,000. This example is illustrated below in Table 5-2.

Table 5-2. Salary Variance Method—Effective Rate Example

<u>Employee</u>	<u>Direct Hours</u>	<u>Indirect Hours</u>	<u>Hours Worked</u>	<u>Annual Salary</u>	<u>Standard</u>	<u>Effective</u>	<u>Direct Labor</u>	<u>Indirect Labor</u>	<u>Total Labor</u>	<u>Labor Variance</u>
					<u>Hourly Rate</u>	<u>Hourly Rate</u>				
Smith	2,000	600	2,600	\$ 72,800	\$ 35	\$ 28	\$ 56,000	\$ 16,800	\$ 72,800	\$ 14,000
Ending Direct Labor:			\$ 70,000	(\$56,000 + \$14,000)						
Ending Indirect Labor:			\$ 2,800	(\$16,800 - \$14,000)						

As illustrated in Tables 5-1 and 5-2 above, the end result of using the Salary Variance Method is the same regardless of whether the engineering consultant uses the Standard Rate or Effective Rate option.

Note: Significant amounts of uncompensated overtime may have a material impact on costs invoiced directly to State DOT contracts. Accordingly, State DOTs may seek billing adjustments when appropriate.

¹⁰ \$72,800 divided by 2,080 standard hours.

¹¹ 2,600 actual hours minus 2,080 standard hours.

¹² \$35 per hour standard wage rate multiplied by 520 uncompensated overtime hours.

Some engineering consultants may have accounting systems that do not capture costs for hours worked by salaried employees in excess of 40 hours per week. Because there is a serious risk of incorrect charging of costs to Government contracts under these circumstances, the following methods of distributing these salary costs are unacceptable:

1. Distribute labor costs to only those cost objectives worked on during the first 8 hours of the day.
2. Allow employees to select the cost objectives to be charged when more than 8 hours per day are worked or the engineering consultant has an informal policy as to how employees are to select the objectives to be charged.

3. Overtime Premium

Engineering consultants must maintain records that segregate overtime premium¹³ amounts and classify them as direct or indirect costs. Additionally, consultants must establish overtime policies that are applied consistently and result in equitable cost allocations.

When employees normally work on multiple cost objectives (projects or administrative activities), it may be difficult to determine which cost objective “caused” the overtime; accordingly, many companies adopt policies requiring overtime premium to be allocated to the indirect labor cost pool. In the alternative, when overtime premium can be identified with specific cost objectives, the premium should be allocated to those cost objectives.

Note: Consultants must treat overtime premium costs consistently for all contracts, regardless of the customer (Government versus commercial) or type of contract involved.

EXAMPLE 5-2. OVERTIME PREMIUM

Sample Design Firm has eight total active projects, including three lump-sum contracts and five cost-plus fixed fee contracts. Only two of the cost-plus fixed fee contracts allow overtime premium to be billed as a direct cost. Sample Firm’s policy is to allocate project-related overtime premium directly to projects; accordingly, the overtime premium must be allocated to all eight projects consistently, regardless of whether the premium costs are billable.

4. Other Considerations Regarding Internal Labor Costs

- **Approvals and Authorizations.** The engineering consultant should have procedures to ensure that labor hours are recorded accurately and that any corrections to timekeeping records are documented, including appropriate authorizations and approvals.
- **Reconciliation of Labor System to Payroll and General Ledger.** The engineering consultant should have procedures requiring that the total labor costs reflected in labor distribution summaries (job cost) agree with the total labor charges as entered in the timekeeping, payroll systems and general ledger. This reconciliation ensures the labor charges to contracts represent actual paid or accrued costs and that such costs are appropriately recorded in the accounting records.
- **Reconciliation of General Ledger and Indirect Cost Rate Schedule to Payroll Tax Returns (IRS Form 941s).** The engineering consultant should have procedures requiring that the total labor costs recorded in the general ledger, and included on the indirect cost rate schedule, reconcile to the payroll data submitted to the Internal Revenue Service.

¹³ “Overtime premium” is the difference between an employee’s standard hourly wage rate and the special hourly wage rate paid for hours worked in excess of 40 per week. For example, an employee whose standard hourly rate is \$10 for the first 40 hours worked per week and \$15 per hour for hours worked in excess of 40 has overtime premium of \$5 for each hour worked in excess of 40. In cases where overtime is project related, the straight-time rate paid for overtime hours worked must be included in the direct labor base, while the premium amount is subject to additional considerations (see discussion above).

- **Labor Costs Directly Associated with Unallowable Activities.** The engineering consultant should have procedures requiring that direct and indirect labor costs directly associated with unallowable costs are identified and segregated.

5. Potential Areas of Risk Regarding Internal Labor

- **Overrun Contracts.** When contract costs have exceeded or are projected to exceed the maximum contract value, the excess costs must *not* be diverted to other cost objectives such as indirect labor, overhead accounts, or other contracts.
- **Significant Changes in Direct/Indirect Labor Accounts.** Trend analyses may disclose instances where charges to direct or indirect labor accounts have increased significantly. Two common ratios often used for trend analysis are the *Productivity Ratio* (direct labor/total labor) and the *Multiplier Ratio* (fee revenue/direct labor). A review should be performed to determine the nature of any significant changes from prior years.
- **Reorganization/Reclassification of Employees.** The organizational structure of the engineering consultant should be analyzed to determine if the potential exists for the inconsistent treatment of similar labor. For example, a program manager should not charge direct on cost-type contracts and indirect on fixed-price/commercial contracts.
- **Adjusting Journal Entries/Exception Reports (Labor Transfers).** Adequate rationale and supporting documentation should be available for all significant labor transfers.
- **Budgetary Control.** Engineering consultants may operate management systems that require strict adherence to budgetary controls. If the system is inflexible, then labor charges may tend to follow the identical route of the budgeted amounts. Rigid budgetary control systems can result in predetermined labor charges.
- **Mix of Contracts.** Engineering consultants must identify and allocate costs consistently in the accounting system, regardless of contract type. For firms that use combinations of lump-sum contracts and cost-reimbursement contracts, there is a significant risk that direct labor and other direct costs may not be allocated to the correct cost objective, resulting in the understatement of direct labor and overstatement of indirect labor or incorrect direct project charging.

Note: For further discussion, see Chapter 9—General Audit Considerations.

6. Sole Proprietors' and Partners' Salaries

The compensation of owners or partners must be allocated as direct labor when they are personally engaged in performing tasks on contracts. If sole proprietors or partners do not receive a salary, then their compensation must be determined by advance agreements or negotiation.

G. Contract Labor/ Purchased Labor

[Reference: CAS 418]

In some cases, engineering consultants contract for services provided by outside engineers, technicians, and similar staff rather than hiring these individuals as employees. These individuals commonly are referred to as “contract labor” or “purchased labor.” The accounting treatment varies, depending on the circumstances under which the purchased labor costs are incurred.

Two acceptable methods of accounting for this labor are:

1. Allocated as a direct cost to projects, or
2. Treated as other labor (direct or indirect as appropriate)

CAS 418 requires pooled costs to be allocated to cost objectives in reasonable proportion to the causal or beneficial relationship of the pooled costs to cost objectives. Contract labor must share in an allocation of indirect expenses where such a relationship exists and the allocation method is consistent with the engineering consultant’s disclosed accounting practices. A separate allocation base for purchased labor

may be necessary to allocate significant costs to contract labor, such as supervision and occupancy costs, or to eliminate other costs, such as fringe benefits, that do not benefit purchased labor.

5.5—Other Direct Costs-Outside Vendors/Employee Expense Reports

Other Direct Costs (ODCs) typically include items such as subcontractors, travel, and outside printing. ODCs also may include internally-allocated costs based on charge-out rates developed by the firm, such as company vehicle mileage and copying (see earlier discussion in Section 5.4.E).

Note: *To be treated as a direct cost, the item must have been required for, and used exclusively on, a specific job. The “but-for” principle should apply. “But for this job, the cost would not have been incurred.” All similar costs must also be treated as direct costs and excluded from indirect costs.*

The audit procedures for ODCs involve determining if unallowable costs were handled correctly. Per CAS 405-40 (Fundamental Requirement): “All unallowable costs shall be subject to the same cost accounting principles governing cost allocability as allowable costs. If a direct cost is unallowable, then it must remain allocated as a direct cost and may not be included in any indirect cost pool.”

5.6—Field Office Rates

[Reference: FAR 31.203(f)]

A. Generally

Engineering consultants are not always able to perform contracted services from their established home- or branch offices, as certain contracts may require establishment of offices in field locations, or the engineering consultant may be required to locate personnel in office space provided by a State DOT. Some engineering consultants may even establish a separate company for field projects. Engineering consultants may have both field (construction management) and project (design) office rates. Both rates may be required or established by contract if the consultant did not have previously established field rate accounting.

Per FAR 31.203(f): “Separate cost groupings for costs allocable to offsite locations may be necessary to permit equitable distribution of costs on the basis of the benefits accruing to the several cost objectives.” In some cases, projects involve engineering consultants working in State DOT provided office(s) for an extended period of time, and the life of the field office is determined by the duration of the project.

For projects where the engineering consultant’s employees do not work out of their own offices and do not receive office support in their day-to-day activities, the hours billed for them may not qualify for the engineering consultant’s full overhead rate. The purpose of the field rate is to pay the engineering consultant for the fringe benefits, project employee management, and home office administrative support they do provide to their field employees.

Approved costs directly identified with the project and consistently treated, as direct costs in the engineering consultant’s accounting records will be allowed as direct project costs.

Note: *Field offices may exist in several forms. Regardless of the engineering consultant’s organization, consistency in allocating costs to cost objectives is critical. This guide presents several suggested methods for computing field office rates. The use of alternative methods may be acceptable. The use of all methodologies must be supported by notes to the indirect cost rate schedule or in a separate disclosure statement.*

B. Types of Field Offices

There are many situations that may require the development of a field- or project-office rate. For example:

- **Construction Contract Administration/Construction Inspection (Field Office).** These contracts involve the management of construction projects and often involve the engineering consultant's personnel being located in an on-site project trailer provided by the contractor or the State DOT. For larger, "mega" projects, the engineering consultant's personnel may be located in the State DOT's main office or regional office.
- **Project Office.** These contracts usually involve services such as design, real estate, traffic center operations, and utilities. When working on these types of contracts, the engineering consultant's personnel typically work out of an office provide by the State DOT.
- **"On Call" Engineers.** Consultants with on-call service contracts for short-term projects and tasks may be required by contract to apply a field rate if the consultant is located in a State DOT's offices.
- **Contract Employees.** State DOTs contract with engineering consultants to provide administrative functions and the engineering consultant's personnel are located in the State DOT's offices to perform these functions.

C. Cost Accounting Considerations

Engineering consultants must be consistent in the development and application of field rates. Accordingly, if an engineering consultant has computed a field rate, this rate must be consistently applied across all business segments and disciplines.

Field rate accounting has an impact on the home office rate. If an engineering consultant has an established field rate for a particular project or State DOT, then the engineering consultant's home office rate will be higher than if the consultant had only a single company-wide rate. As such, for consistent cost accounting application, a State DOT that does not have a field office project would have a higher home rate applied to their State DOT projects.

1. Field Office Direct Labor

Direct field labor is based on actual labor hours multiplied by actual labor rates for field assigned employees. If historical data is not available when establishing a provisional field rate for the first time, then an estimate of direct hours for the contract(s) may be used to distribute direct labor to the field office overhead pool and/or a provisional rate may be negotiated.

2. Field Office Indirect Costs

There are many considerations to use when developing methodologies for field and project office rates, and these may vary between engineering consultants. However, direct labor is the common base used in the development of field rates. The following method described for allocating costs is a preferred methodology. Field- and project-office rate calculations based on different methodologies than what is provided in this guide may be acceptable. Many firms disclose their methodology in their audit footnotes or have an approved Cost Allocation Disclosure Statement that documents their field office accounting methodology.

If an alternative allocation method is used, then the consultant's allocation must have resulted from a "reasonable and determinable allocation plan, consistently applied." The engineering consultant should provide a note or other disclosure to describe the allocation methodology in sufficient detail so an auditor can examine the methodology and verify its logic and reasonableness.

Generally, State DOTs do not require extensive administrative staffing of engineering consultants' field offices. Most administrative and management functions will be performed in the home or branch office. Therefore, an equitable portion of these offices' indirect costs should be allocated to the field office. The costs that are allocated, and the basis for the allocation, depend largely on the engineering consultant's customary accounting practices. Some State DOTs require separate cost pools for accumulation of field office costs. Certain home office indirect cost should be fully allocated to the home office overhead pool,

and certain field office indirect cost should be fully allocated to the field office pool (see further discussion in Section 5.6.C.3).

Fringe Benefits. The fringe benefits applicable to the field office direct labor costs should be allocated to the field office overhead pool. If the engineering consultant's accounting records do not maintain separate accounts for field office fringe benefits, then the fringe benefits may be allocated using the Field Office Direct Labor Rate shown below in Table 5-3:

TABLE 5-3. COMPUTATION OF FIELD OFFICE DIRECT LABOR RATE

$$\frac{\text{Field Direct Labor Cost}}{\text{Total Direct Labor Cost}} = \text{Field Office Direct Labor Rate}$$

Indirect Labor—Non-Project Time. Labor costs pertaining to non-project time of professional staff working in the field office (training, staff development, staff meetings, and/or similar activities) is generally recorded specifically within the Field Office Indirect Labor accounts. If these costs are not identified or accounted for separately, then a ratio based on the Field Office Labor Rate may be used to allocate costs to the Field Offices, as shown below in Table 5-4:

TABLE 5-4. COMPUTATION OF FIELD OFFICE LABOR RATE

$$\frac{\text{Total Field Labor Cost}}{\text{Total Labor Cost}} = \text{Field Office Labor Rate}$$

Indirect Labor—Support Staff. Indirect salaries, such as accounting, legal, purchasing, personnel, management, and/or similar costs, should also be allocated to the field office overhead pool. Project managers who spend significant amounts of time managing field office staff may account for this management time as actual indirect in the field office overhead pool. This actual time must be supported and documented on the managers' time report. All other support staff time that is not specifically accounted for may be allocated between the home office overhead pool and the field office overhead pool. A ratio of Field Office Labor Percentage would be a reasonable method to allocate these costs.

3. Other Considerations Regarding Indirect Cost Allocations

Indirect Costs Fully Allocated to Home Office. Certain home office indirect costs should be fully allocated to the home office overhead cost pool. These costs include, for example, depreciation, facilities rent, real estate taxes, facility maintenance and repairs, utilities, facility insurance, and/or similar types of costs associated with home office direct labor. (Costs of support functions that support both home and field offices should be allocated accordingly.)

Indirect Costs Fully Allocated to Field Office. Likewise, certain field office indirect costs should be fully allocated to the field office overhead pool. Some examples of these costs include field equipment, on-site trailer rental, field supplies, field equipment, software specific to projects, and/or similar types of costs.

Indirect Costs Ratably Allocated to Field Office. Other general indirect costs are allocated to the field office overhead pool based on a reasonable estimate of the benefits accruing to the field office pool. One recommended method is to allocate general indirect costs on the basis of the field office labor percentage. This allocation method involves applying the field office labor percentage to the various general expense line items on the company's indirect cost rate schedule. Costs such as rent, real estate taxes, facility maintenance and repairs, utilities, facility insurance, and/or other similar costs should be allocated between the G&A portion of the home office costs and to the field offices on a basis that appropriately reflects the benefits received. For example, the space costs for accounting staff and other support services benefit all offices, including field offices; therefore, these costs should be allocated proportionately among the home and field offices.

Separate Accounting for General and Administrative (G&A) Costs. Some engineering consultants account for G&A office costs in a separate cost pool. In this situation, G&A costs may be allocated to both field and home office operations. When G&A costs are allocated on a base other than direct labor cost, then the G&A allocation rate must be separately disclosed on the indirect cost rate schedule.

Note: *If the engineering consultant computes a field office overhead rate, then this must be disclosed on the indirect cost rate schedule. The schedule should include a separate column listing the indirect field expenses, direct field labor, and resulting field rate. The schedule also should include a footnote to describe the allocation method(s) used. Tables 5-6 and 5-7 show examples of an indirect cost rate schedule with a field office rate and supporting computations (see the following pages).*

CHAPTER 5/COST ACCOUNTING

TABLE 5-5. SAMPLE INDIRECT COST RATE SCHEDULE

SAMPLE CONSULTING COMPANY, Inc.
Statement of Direct Labor, Fringe Benefits, and General Overhead
For the Year Ended December 31, 201x

Account Number & Description	General Ledger Account Balance	Direct Costs	Disallowed Costs	Proposed Company Wide	% of Direct Labor
DIRECT LABOR	\$ 1,950,501	\$ 1,950,501	\$ -	\$ 1,950,501	100.00%
INDIRECT COSTS:					
FRINGE BENEFITS					
6300 Benefits: Bonuses.....	\$ 234,060	\$ -	\$ (28,560) (a)	\$ 205,500	10.54%
6310 Benefits: 401(k).....	97,525	-	-	97,525	5.00%
6320 Benefits: PTO (vac., sick, and holiday).....	253,565	-	-	253,565	13.00%
6820 Insurance: Disability.....	58,515	-	-	58,515	3.00%
6830 Insurance: Life.....	21,846	-	(800) (b)	21,046	1.08%
6840 Insurance: Medical.....	136,535	-	-	136,535	7.00%
6850 Insurance: Workers' Comp.....	15,799	-	-	15,799	0.81%
7500 Payroll Taxes: FICA and Med.....	180,421	-	-	180,421	9.25%
7510 Payroll Taxes: FUTA and SUTA.....	78,020	-	-	78,020	4.00%
TOTAL FRINGE BENEFITS	\$ 1,076,286	\$ -	\$ (29,360)	\$ 1,046,926	53.67%
GENERAL OVERHEAD					
6700 Indirect Labor.....	\$ 741,190	\$ -	\$ (3,300) (c)	\$ 737,890	37.83%
5010 Direct: Lodging, Meals, and Travel.....	122,101	(122,101)	- (d)	-	0.00%
5020 Direct: Employee Mileage Reimbursements.....	159,941	(159,941)	- (d)	-	0.00%
5030 Direct: Rentals and Supplies.....	21,651	(21,651)	- (d)	-	0.00%
5040 Direct: Subconsultants.....	44,862	(44,862)	- (d)	-	0.00%
6000 Advertising and Marketing.....	23,991	-	(6,750) (e)	17,241	0.88%
6100 Automobile Expense.....	68,268	-	(13,580) (f)	54,688	2.80%
6200 Bank Service Charges.....	9,753	-	-	9,753	0.50%
6400 Contributions and Gifts.....	14,629	-	(14,629) (g)	-	0.00%
6500 Depreciation Expense.....	117,030	-	-	117,030	6.00%
6600 Dues and Subscriptions.....	16,189	-	(350) (h)	15,839	0.81%
6800 Insurance: Automotive.....	15,409	-	-	15,409	0.79%
6810 Insurance: Business Liability.....	23,406	-	-	23,406	1.20%
6900 Interest Expense.....	36,084	-	(36,084) (i)	-	0.00%
7000 Licenses and Permits.....	21,456	-	-	21,456	1.10%
7100 Maintenance and Repairs.....	97,135	-	-	97,135	4.98%
7200 Meals & Entertainment.....	19,310	-	(1,050) (j)	18,260	0.94%
7300 Misc. Fees, Fines, Penalties.....	6,827	-	(6,827) (k)	-	0.00%
7400 Office Expense: Cleaning.....	8,192	-	-	8,192	0.42%
7410 Office Expense: Postage and Delivery.....	4,486	-	-	4,486	0.23%
7420 Office Expense: Office Supplies.....	32,183	-	-	32,183	1.65%
7430 Office Expense: Other Office Expense.....	35,889	-	-	35,889	1.84%
7600 Personal Property Tax.....	42,911	-	-	42,911	2.20%
7700 Prof Fees: Accounting and Legal.....	30,428	-	-	30,428	1.56%
7800 Rent.....	180,049	-	(2,400) (l)	177,649	9.11%
7900 Telephone.....	60,466	-	-	60,466	3.10%
8000 Utilities.....	29,472	-	-	29,472	1.51%
Credit for Internal Allocations.....	-	-	(107,278) (m)	(107,278)	-5.50%
TOTAL GENERAL OVERHEAD	\$ 1,983,306	\$ (348,555)	\$ (192,247)	\$ 1,442,505	73.96%
TOTAL INDIRECT COSTS & OVERHEAD RATE	\$ 3,059,593	\$ (348,555)	\$ (221,607)	\$ 2,489,431	127.63%

FAR References and Notes:

- (a) 31.205-6(a)(6)(ii)(B): Owners' compensation in excess of reasonable amount is disallowed (distribution of profits).
- (b) 31.205-19(e)(2)(v): Officers' life insurance is disallowed.
- (c) 31.201-6(e)(2): Marketing, lobbying, and any labor associated with unallowable activities is disallowed.
- (d) 31.202: Excluded direct project costs (both billable & non-billable costs) from indirect cost pool.
- (e) 31.205-1: Costs for general marketing materials are disallowed.
- (f) 31.205-6(m)(2) & 31.205-46(d): Personal use of a company asset (automobile) is disallowed.
- (g) 31.205-8 & 31.205-13(b): Contributions and gifts are disallowed.
- (h) 31.205-22: Lobbying costs, paid as a percentage of professional dues, are disallowed.
- (i) 31.205-20: Interest is disallowed.
- (j) 31.205-14 & 31.205-51: Costs for entertainment and alcoholic beverages are disallowed. (The entertainment cost principle supersedes all others.)
- (k) 31.201-4, 31.205-15, & 31.205-20: Disallowed late fees; Government-imposed fines and penalties; and credit card interest.
- (l) 31.205-36(b)(3): Related-party rent (not an arm's-length transaction) is limited to actual cost of ownership, net of interest and other unallowable items.
- (m) 31.202: Direct costs segregated and removed from indirect cost pool.

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Table 5-6. SAMPLE INDIRECT COST RATE SCHEDULE (WITH FIELD RATE)

SAMPLE CONSULTING COMPANY, Inc.
Statement of Direct Labor, Fringe Benefits, and General Overhead (with Field Rate)
For the Year Ended December 31, 201x

Account Number & Description	General Ledger Account Balance	Direct Costs	Disallowed Costs	Proposed Company Wide	ALLOCATIONS		
					Proposed Home Office	Proposed Field Office	Percent to Field Office
DIRECT LABOR	\$ 1,950,501	\$ 1,950,501	\$ -	\$ 1,950,501	\$ 1,826,853	\$ 123,648	(n) 6.34%
INDIRECT COSTS:							
FRINGE BENEFITS							
6300 Benefits: Bonuses.....	\$ 234,060	\$ -	\$ (28,560) (a)	\$ 205,500	\$ 193,000	\$ 12,500	(n)
6310 Benefits: 401(k).....	97,525	-	-	97,525	91,255	6,270	(n)
6320 Benefits: PTO (vac., sick, and holiday).....	253,565	-	-	253,565	241,421	12,144	(n)
6820 Insurance: Disability.....	58,515	-	-	58,515	54,806	3,709	6.34%
6830 Insurance: Life.....	21,846	-	(800) (b)	21,046	19,711	1,334	6.34%
6840 Insurance: Medical.....	136,535	-	-	136,535	127,880	8,655	6.34%
6850 Insurance: Workers' Comp.....	15,799	-	-	15,799	14,798	1,002	6.34%
7500 Payroll Taxes: FICA and Med.....	180,421	-	-	180,421	168,984	11,437	6.34%
7510 Payroll Taxes: FUTA and SUTA.....	78,020	-	-	78,020	73,074	4,946	6.34%
TOTAL FRINGE BENEFITS	\$ 1,076,286	\$ -	\$ (29,360)	\$ 1,046,926	\$ 984,928	\$ 61,998	
GENERAL OVERHEAD							
6700 Indirect Labor (G&A and support allocation).....	\$ 741,190	\$ -	\$ (3,300) (c)	\$ 737,890	\$ 680,506	\$ 38,736	(o) 5.25%
6700 Indirect Labor (field labor allocation).....	-	-	-	-	-	18,648	(n)
5010 Direct: Lodging, Meals, and Travel.....	122,101	(122,101)	- (d)	-	-	-	5.25%
5020 Direct: Employee Mileage Reimbursements.....	159,941	(159,941)	- (d)	-	-	-	5.25%
5030 Direct: Rentals and Supplies.....	21,651	(21,651)	- (d)	-	-	-	5.25%
5040 Direct: Subconsultants.....	44,862	(44,862)	- (d)	-	-	-	5.25%
6000 Advertising and Marketing.....	23,991	-	(6,750) (e)	17,241	16,336	905	5.25%
6100 Automobile Expense.....	68,268	-	(13,580) (f)	54,688	51,817	2,871	5.25%
6200 Bank Service Charges.....	9,753	-	-	9,753	9,241	512	5.25%
6400 Contributions and Gifts.....	14,629	-	(14,629) (g)	-	-	-	5.25%
6500 Depreciation Expense.....	117,030	-	-	117,030	117,030	- (p)	
6600 Dues and Subscriptions.....	16,189	-	(350) (h)	15,839	15,008	831	5.25%
6800 Insurance: Automotive.....	15,409	-	-	15,409	14,600	809	5.25%
6810 Insurance: Business Liability.....	23,406	-	-	23,406	22,177	1,229	5.25%
6900 Interest Expense.....	36,084	-	(36,084) (i)	-	-	-	5.25%
7000 Licenses and Permits.....	21,456	-	-	21,456	20,329	1,126	5.25%
7100 Maintenance and Repairs.....	97,135	-	-	97,135	92,036	5,099	5.25%
7200 Meals & Entertainment.....	19,310	-	(1,050) (j)	18,260	17,301	959	5.25%
7300 Misc. Fees, Fines, Penalties.....	6,827	-	(6,827) (k)	-	-	-	5.25%
7400 Office Expense: Cleaning.....	8,192	-	-	8,192	8,192	- (p)	
7410 Office Expense: Postage and Delivery.....	4,486	-	-	4,486	4,486	- (p)	
7420 Office Expense: Office Supplies.....	32,183	-	-	32,183	32,183	- (p)	
7430 Office Expense: Other Office Expense.....	35,889	-	-	35,889	35,889	- (p)	
7600 Personal Property Tax.....	42,911	-	-	42,911	42,911	- (p)	
7700 Prof Fees: Accounting and Legal.....	30,428	-	-	30,428	28,830	1,597	5.25%
7800 Rent.....	180,049	-	(2,400) (l)	177,649	177,649	- (p)	
7900 Telephone.....	60,466	-	-	60,466	57,291	3,174	5.25%
8000 Utilities.....	29,472	-	-	29,472	29,472	- (p)	
Credit for Internal Allocations.....	-	-	(107,278) (m)	(107,278)	(107,278)	- (p)	
TOTAL GENERAL OVERHEAD	\$ 1,983,306	\$ (348,555)	\$ (192,247)	\$ 1,442,505	\$ 1,366,008	\$ 76,497	
TOTAL INDIRECT COSTS	\$ 3,059,593	\$ (348,555)	\$ (221,607)	\$ 2,489,431	\$ 2,350,936	\$ 138,495	

OVERHEAD RATES (as percentages of direct labor cost).....	127.63%	128.69%	112.01%
	Company Wide	Home Office	Field Office

FAR References and Notes:

- (a) 31.205-6(a)(6)(ii)(B): Owners' compensation in excess of reasonable amount is disallowed (distribution of profits).
- (b) 31.205-19(e)(2)(v): Officers' life insurance is disallowed.
- (c) 31.201-6(e)(2): Marketing, lobbying, and any labor associated with unallowable activities is disallowed.
- (d) 31.202: Excluded direct project costs (both billable & non-billable costs) from indirect cost pool.
- (e) 31.205-1: Costs for general marketing materials are disallowed.
- (f) 31.205-6(m)(2) & 31.205-46(d): Personal use of a company asset (automobile) is disallowed.
- (g) 31.205-8 & 31.205-13(b): Contributions and gifts are disallowed.
- (h) 31.205-22: Lobbying costs, paid as a percentage of professional dues, are disallowed.
- (i) 31.205-20: Interest is disallowed.
- (j) 31.205-14 & 31.205-51: Costs for entertainment and alcoholic beverages are disallowed. (The entertainment cost principle supersedes all others.)
- (k) 31.201-4, 31.205-15, & 31.205-20: Disallowed late fees; Government-imposed fines and penalties; and credit card interest.
- (l) 31.205-36(b)(3): Related-party rent (not an arm's-length transaction) is limited to actual cost of ownership, net of interest and other unallowable items.
- (m) 31.202: Direct costs segregated and removed from indirect cost pool.
- (n) Field employee labor and fringe specifically identified.
- (o) Indirect general administrative and support labor less identified field portion is allocated.
- (p) Accounts specifically identified as home office only.

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TABLE 5-7. FIELD OFFICE COMPUTATIONS

Field Employee Worksheet						
Employee Name & Classification	Direct Labor	Indirect Labor (general)	Bonuses (fringe benefit)	401(k) (fringe benefit)	Paid Time Off (fringe benefit)	Field-Specific Totals
Name 1 - Project Manager	-	10,920	-	-	-	10,920
Name 2 - Senior Engineer	50,176	3,136	7,500	2,620	4,928	68,360
Name 2 - Project Engineer	41,216	2,576	3,500	1,966	4,048	53,306
Name 4 - Technician 1	32,256	2,016	1,500	1,685	3,168	40,625
	<u>123,648</u>	<u>18,648</u>	<u>12,500</u>	<u>6,270</u>	<u>12,144</u>	<u>173,210</u>

Field Office Direct Labor Calculation	
Direct Labor (Field Office)	123,648
	+
Total Direct Labor (Home + Field)	<u>1,950,501</u>
Direct Labor Based Field %	<u>6.34%</u>

Field Office Labor Calculation		
	Company Wide	Field Office
Direct Labor	1,950,501	123,648
PTO (vacation/sick/holiday)	253,565	12,144
Indirect Labor	<u>737,890</u>	<u>18,648</u>
Totals	<u>2,941,957</u>	<u>154,440</u>
		+
Total Company Labor		<u>2,941,957</u>
General Overhead Field %		<u>5.25%</u>