

Service Center Procedure Manual

New Mexico Tech Business Office
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The purpose of this narrative is to establish a comprehensive procedure which governs service center operations in order to ensure compliance with government regulations. Service center activities result in charges, either directly or indirectly, to federally sponsored grants and contracts. Therefore, service center practices must comply with government regulatory costing principles such as those contained in the Office of Management and Budget (OMB) *Circular A-21*, "Cost Principles for Educational Institutions."

This document is continually being updated; we would appreciate any information and/or insight that would help us develop stronger policies for NMIMT's research community.

Table of Contents

I. Introduction 4

A. Purpose4

B. Authority4

C. Compliance.....4

D. Definitions5

 a. Service Center5

 b. Billing Rate7

 c. Billing Unit.....8

 d. Break-even Period8

 e. Capital Usage Factor.....8

 f. Carry Forward8

 g. Cost8

 h. Cost Centers/Pools8

 i. Current Operating Costs8

 j. External Users9

 k. Imputed Revenue10

 l. Internal User.....10

 m. Inventory Funds for Products Held for Sale10

 n. Student Use of Service Centers.....10

 o. Unallowable Costs.....11

 p. Working Capital.....12

II. Chapter 1: Creation of Service Centers 13

A. Planning for Service Centers13

B. Review and Approval of Service Center Funds13

C. Responsibilities of the Service Center Manager14

D. Responsibilities outside the Service Center15

III. Chapter 2: Accounting, Budgeting, and Billing Considerations..... 16

A. Cost Accounting Guidelines16

 a. Accounting Practices16

 b. Associative Concepts.....16

 c. Basis for Direct Charges16

 d. Billing Rates.....17

 e. Break-even Expectation.....17

 f. Capital Usage Factors17

 g. Cost Centers/Pools18

 h. Credit Card Payments.....18

 i. Disclosure Statement18

 j. Established Price List18

 k. Fiscal Year.....18

 l. Frequency of Billing Rate Calculations.....19

 m. Transfers19

- B. Budgeting for Service Centers19
- C. Monthly Billings19
 - a. Internal Users19
 - b. External Users20
 - c. Match Revenue and Expense-within Period20
- D. Documentation of Costs21
- IV. Chapter 3: Allowable and Unallowable Costs..... 22**
 - A. Salaries, Wages, and Fringe Benefits.....22
 - B. Materials, Services, and Supplies22
 - C. Equipment Depreciation.....22
 - D. Travel.....23
 - E. Other Direct Costs23
 - F. Indirect Costs23
 - G. Unallowable Costs.....23
- V. Chapter 4: Rate Development..... 24**
 - A. The Basic Equation24
 - B. Types of Usage Bases24
 - C. Treatment of Over/Under-Recoveries.....25
 - D. Pricing of Multiple Services25
- VI. Chapter 5: Monitoring Performance..... 26**
 - A. Annual Rate Proposal and Review Process26
 - B. Annual Financial Operating Reports27
- VII. Chapter 6: Post-Operation Requirements..... 29**
 - A. Record Retention29
 - B. Audits.....29
- VIII. List of Exhibits..... 30**
 - A. The Process of Starting and Operating a Service Center at NMIMT31
 - B. Service Center Registration Form.....32
 - C. Financial Management of Service Centers33
 - D. Sample Rate Calculations35
 - E. Allowable and Unallowable Costs in Rate Calculation.....38
 - F. Operating Report – Blank.....39
 - G. Sample JV for Internal Users.....41
 - H. Sample Invoice for External Users43
 - I. Annual Rate Validation Form44

I. Introduction

A. Purpose

The purpose of this narrative is to establish a comprehensive procedure which governs service center operations in order to **ensure compliance with government regulations**. Service center activities result in charges, either directly or indirectly, to federally sponsored grants and contracts. Therefore, service center practices must comply with government regulatory costing principles such as those contained in the [Office of Management and Budget \(OMB\) Circular A-21, "Cost Principles for Educational Institutions."](#)

Instances of non-compliance with federal regulations may result in pay backs to the government as well as adverse publicity, which could impact future sponsored funding. With the wide variation in size, complexity, and services provided, common administrative practices such as billing rate development are critical to maintaining compliance with regulations applicable to service centers.

Throughout this manual, New Mexico Institute of Mining and Technology will be referred to as NMIMT. For definition or directive within this manual, department can also mean research center or functional unit. The Restricted Funds Department/Cost Accounting Office will be abbreviated as RFD/CAO, respectively. Service Center Manager will be abbreviated as SCM.

B. Authority

The Vice President of Administration and Finance, the Director of Finance, and the Director of Sponsored Projects have approved this manual as procedure for NMIMT service centers.

C. Compliance

[OMB Circular A-21, "Cost Principles for Educational Institutions"](#), is the federal regulation which provides guidance to all universities on issues concerning cost allowance for direct and indirect costs. This is also referred to as 2 Code of Federal Regulations (CFR) Part 220 – Cost Principles for Educational Institutions.

Cost Accounting Standards Board Disclosure Statement (CASB DS-2) Part III, item 3.2.0 defines service centers as "Departments or functional units which perform specific technical or administrative services for the benefit of other units within a reporting unit."

OMB *Circular A-21* specifies in Section J.47, Specialized Service Facilities, that, “Charges for the use of specialized facilities should be designed to recover not more than the aggregate cost of the services over a long-term period agreed to by the institution and the cognizant Federal agency”. Further, the section states, “Accordingly, it is not necessary that the rates charged for services are equal to the cost of providing those services during any one fiscal year as long as rates are reviewed periodically for consistency with the long-term plan and adjusted if necessary.”

Cost accounting standards for educational institutions are set forth in Part 9905 – Cost Accounting Standards for Education Institutions of Title 48 of the *Federal Acquisition Regulation System*, Chapter 99 – Cost Accounting Standards Board, Office of Federal Procurement Policy, and Office of Management and Budget. These guidelines must be followed.

All NMIMT policies and procedures must be followed as well.

D. Definitions

a. *Service Center*

A **service center** is an operational unit within a department or research center of NMIMT that performs specific technical or administrative services primarily for the internal operations of NMIMT. They sell a well-defined product and/or service and recover the cost of operations through charges to users. They must have published rates and charge all users the same amount for the same service under the same circumstances.

External users must pay the service center rate **plus** overhead. This assures that the **total cost** of the service for an external user is not less than the **total cost** of the same service for a grant or contract. Total cost for the award is the sum of the internal user rate directly charged by the service center to the award fund number via a JV plus the negotiated indirect cost rate for the grant or contract set by the terms and conditions of the award and invoiced by the Restricted Funds Department to the awarding agency.

Service centers, when providing service to external users, may not unfairly compete with the private sector. When the market price for a service provided by a NMIMT service center exceeds total cost for the service provided, the price must be adjusted up to market price. This adjustment is referred to as a fair market value (FMV) adjustment. In some circumstances, governmental gross receipts tax must be charged.

Service centers must cover their operating costs through the rates they charge to the users of their services. By contrast, research centers receive state appropriation for some or all of their operating costs.

There are three types of services centers—recharge centers, specialized service facilities, and service facility—that are **expected to meet the standards of consistency and allowance in rate development set forth in this manual.**

1. Recharge Center

A **recharge center (RC)** is a form of service center with annual direct operating costs of less than \$100,000. A RC does not have to submit an annual rate proposal as described in Chapter 5: Monitoring Performance, but they are required to supply the Cost Accounting Office (CAO) with a completed service center form and copy of their posted rates for review and approval of transactions. It is the responsibility of the Service Center Manager (SCM) to monitor compliance with Service Center policy. The SCM may request review or assistance from the RFD/CAO when needed. Examples include department owned and operated vehicles, copiers, or other equipment for which the department/research center charges users in order to recover costs.

2. Specialized Service Facility

A **specialized service facility (SSF)** is a large service center that:

- Provides specialized services to a select group of users rather than for overall NMIMT operations.
- Has combined annual direct operating costs and internal overhead costs of \$1,000,000 or more.

Examples of SSFs are Energetic Materials Research and Testing Center (EMRTC) field operations; Playas Training and Research Center; and the Magdalena Ridge Observatory 2.4m Telescope.

3. Service Facility

A **service facility (SF)** includes all service centers that do not fall within the definition of a recharge center or a specialized service facility. An example of a service facility is Information Services Department (ISD).

Auxiliary services are not included in the compliance requirements outlined in this manual. An auxiliary service is a self-supporting entity that exists principally to furnish goods or services to students, alumni, or faculty and staff acting in a personal capacity, and charges a fee for the use of goods or services. Auxiliary services generally do not support departments or research centers. The general public may be served incidentally. Examples of auxiliary services include Macey Conference Center, residence halls, food services, intercollegiate athletics, college unions, college stores, alumni travel, parking, and shuttle services.

Pricing for auxiliary services may be based on market rates, except when charging for services provided to federal awards. When charging to sponsored projects, only the cost of service may be recovered. The federal rate for service must always be the lowest rate offered for the services provided.

b. Billing Rate

A billing rate is an amount established to charge for specific services or products. All users within NMIMT should be charged the same rate for a particular service provided under the same circumstances. Pricing structures based on time-of-day, volume discounts, turn-around time, etc. are acceptable, provided that they have a sound management basis, do not result in recovering more than the costs of providing the services, and are made equally available to all users. See OMB *Circular A-21* Section C or CFR *Cost Account Standards* 9905 for detail on cost.

Billing rates may not be based on what others charge for similar services except when dealing with an external user. Anticipate that an auditor will want to see how proposed costs or cost centers/pools for a specific year track to proposed rates in sufficient detail to form a basis for comparison to actual costs for the same year and the rates that result. The variance in amount between the two is the basis for carry-forward adjustments to future rates.

The billing rate(s) shall be determined by dividing the costs of a particular service/product by the billing unit. Rates established by service centers must be non-discriminatory, and all users of the facility must be billed for services. Non-discriminatory means all internal users must be charged the same rate(s) for the same level of services or products purchased.

External customers of a service center may not be charged a billing rate less than that charged to internal users. However, they may be charged at a higher billing rate in an effort to promote full costing and in order not to unfairly compete with private enterprise and to ensure compliance with the anti-donation clause. Billings to external users should include facilities and administrative costs (F&A costs, formerly indirect costs) using the current on-campus research rate. The current rate is posted on the Restricted Funds Department (RFD) web site or can be obtained by contacting the RFD. The rates change each fiscal year. The RFD/CAO publishes the new rates in the NMT online newsletter upon receipt from the Office of Naval Research.

Departments/research centers providing cost share in the form of service center support will either transfer funds into the cost share companion fund or into the sponsored project fund in accordance with the [NMIMT Cost Share Policy](#). This allows the service center to receive its full cost in order to avoid reflecting false deficits or surpluses and inadvertently causing subsidies between users (e.g., the federal government cannot subsidize non-federal users). See Section K - Imputed Revenue for more detail.

In some instances users may receive service at no cost to them provided the service is paid for from a designated NMIMT source. An example would be use of a service center by a qualifying academic student. See Section M - Student Use of Service Centers.

c. *Billing Unit*

A **billing unit** is the basis on which services/products are offered (i.e., labor hours, unit price, machine time, number of users, number of samples, number of units processed, etc.).

d. *Break-even Period*

The **break-even period** is a reasonable time-period over which cumulative revenue for a service or product equals cumulative expenses.

e. *Capital Usage Factor*

The **capital usage factor** is the annual cost of capital equipment. This includes depreciation or usage allowance and lease/rental costs. If the equipment is purchased with federal funds or is part of NMIMT's indirect cost calculation, that purchase and/or any relevant depreciation must be excluded from the service center rate. See Capital Usage Factor.

f. *Carry Forward*

Carry forward is the over- or under-recovery of current operating costs resulting from billing rates that vary from actual cost (generally calculated on a fiscal year basis). The carry forward is an allowable cost adjustment to subsequent year rate computations and promotes break-even within the break-even period. When determining fund balances, service centers must impute revenue (not received within the period or discounted) as if it were collected at the normal rate to avoid reflecting false deficits or surpluses. This is critical to avoid subsidies between users (e.g., the federal government cannot subsidize non-federal users). See Section K - Imputed Revenue.

g. *Cost*

Cost includes actual expenditures incurred for salaries and wages; employee related expense; operations; travel; capital usage; and associated administrative service charges.

h. *Cost Centers/Pools*

Cost centers and cost pools are units of activity or areas of responsibility into which a service center is divided for accountability purposes and to which costs are allocated or directly assigned (e.g., garage/vehicles, security within EMRTC). See Cost Centers/Pools.

i. *Current Operating Costs*

Current operating costs represent allowable salaries and wages, employee related expenses, operations, travel, capital usage factor (if applicable) for the operation of a service center and intended to be recovered through the billing process. Current operating costs may include unallowable costs **only if billed to non-federal external users** (i.e., advertising costs to attract external users) and tracked in a way to assure exclusion from rates charged to internal users.

j. *External Users*

An **external user** is an entity or person for whom NMIMT has no direct affiliation or fiduciary responsibility as in sponsored projects. The person or company is an outside party **external to NMIMT's mission** but wishes to purchase a service/product because the service center has unique equipment and/or staff expertise. The following may apply:

1. **Gross Receipts Tax (Sales Tax)**

New Mexico does not have a sales tax. It has a gross receipts tax instead. As a state university, NMIMT is not subject to ordinary gross receipts tax. However, **Governmental Gross Receipts Tax (GGRT)** applies to NMIMT transactions when selling to external users (general public) under the following circumstances.

TAXABLE GOVERNMENTAL TRANSACTION

The governmental gross receipts tax applies to the receipts of the state of New Mexico and any of its agencies, institutions, instrumentalities and political subdivisions from:

- **Sale of tangible personal property** other than water from facilities open to the general public [unless selling to 501c(3) organizations (7-9-60)].
- **Performance of or admission to** recreational, athletic or entertainment services or events open to the general public.
- **Refuse collection or disposal or both**—receipts of a government from performing refuse collection or disposal are governmental gross receipts regardless of how or for whom they are performed.
- **Sewage services**—receipts of a government from supplying sewage services are governmental gross receipts regardless of how or for whom they are performed.
- **Sale of water** by a utility owned or operated by a county, municipality or other political subdivision of the state.
- **Rental** of parking, docking or tie-down spaces or the granting of permission to park vehicles, tether aircraft or dock boats.

Unless the receipts are from one of the above activities, they are not governmental gross receipts and are not taxable either as regular gross receipts or as governmental gross receipts (7-9-3.2 Gross Receipts and Compensating Tax Act). For additional information contact the Business Office Senior Accounting Technician in Fidel, Room 233 or phone number (575) 835-5297.

2. **Unrelated Business Income Tax**

If goods or services are charged to external users **at more than cost**, NMIMT may have a liability for **unrelated business income tax (UBIT)**. An activity must meet **all three** of the following tests to be classified as unrelated business income (subject to tax):

- The activity must be a trade or business – this includes universities.

- The activity must be conducted regularly – this includes service center activities.
- The activity must **not** be substantially **related to the institution's exempt educational or scientific/research purposes (unrelated activity to external user)**.

For further information about UBIT, please contact the Budget and Analysis office in Brown Hall, Room 100 or phone number (575) 835-5295.

k. *Imputed Revenue*

Imputed revenue is the process of determining service center revenue without regard of discounts (cost share) and/or surcharges. Departments providing cost share in the form of service center support will either transfer funds into the cost share companion fund or into the sponsored project fund in accordance with the [NMIMT Cost Share Policy](#). The service center manager would then charge the normal rate for use to the companion or project fund. This is important in order to avoid reflecting false deficits or surpluses and inadvertently causing subsidies between users (e.g., the federal government cannot subsidize non-federal users). **It is not recommended that service centers be used for cost share because there is no real benefit and it creates unnecessary confusion. NMIMT still ends up funding the cost share.**

l. *Internal User*

An Internal User will always have a Banner fund number. They are part of the mission of NMIMT, i.e. Instruction and Research. Even though Sponsored Projects are awarded by entities external to NMIMT, they are internal to the research mission of NMIMT. They are given a fund number and NMIMT has a contractual responsibility for tracking and maintaining the terms and conditions of the award.

m. *Inventory Funds for Products Held for Sale*

If a service center sells products and has a significant amount of stock on hand, inventory records must be maintained. If the value of the inventory is expected to exceed \$50,000 at any point in the year, a formal inventory fund should be established. If the inventory is not expected to exceed \$50,000, internal inventory records may be used in lieu of a formal fund. A physical inventory should be taken at least annually at the end of the fiscal year and be reconciled to the inventory records. Weighted average should be used as the inventory valuation method. **Charges to users must be for inventory used, not inventory orders that include excess not used.**

n. *Student Use of Service Centers*

It is allowable for **enrolled students** showing proper identification to use a service center for **academic purposes** without a charge to the student provided the following steps are followed:

1. The appropriate service center rate for the service used by the student should be charged to **Index 103022** using a Journal Voucher (JV). The JV supporting documentation should be consistent with documentation attached for any other internal user using the same service under the same circumstances.
2. The JV must additionally reference the students name and nine digit student ID number.
 - The service center manager may contact the Cost Accounting Office with the **nine digit student ID number** for verification that the student is currently enrolled.
 - If the student is not currently enrolled for academic or research purposes related to academics, the charge will not be approved.
3. If a student's use of the service center is part of the required scope of work for a sponsored project, then the sponsored project must be charged for the service center use. Index 103022 cannot be used to subsidize a sponsored project (i.e., grant or contract or internally funded university research such as GRC).

A sample JV is available from the Cost Accounting Office or on their web site. Either the JV or the supporting document attached to the JV must be signed by both the student and the Service Center Manager before being processed. See Sample JV for Internal Users.

o. Unallowable Costs

An **unallowable cost** is an expense specifically unallowable under NMIMT policy or OMB *Circular A-21*. Failure to mention a particular item is not intended to imply it is allowable. Refer to Section J in OMB *Circular A-21* for comprehensive list of unallowable costs. See Allowable and Unallowable Costs in Rate Calculation.

The following represents examples of common unallowable costs:

1. Marketing/Business Development.
2. Advertising of Services/Products.
3. Alcoholic Beverages.
4. Bad Debts.
5. Donations and Contributions to Organizations/Individuals.
6. Entertainment or Anything Remotely Connected.
7. Fines and Penalties.
8. Goods, Services, or Travel Not Related to the Service Center.
9. Housing and Personal Expenses.
10. Interest Expense.
11. Memberships of Professional or Other Organizations.
12. Profits and Losses on Disposition of Plant Equipment or Other Capital Assets.
13. Scholarships and Student Aid.

Any questions regarding allowability of expenses to a service center may be addressed to the Restricted Funds Department/Cost Accounting Office.

p. *Working Capital*

Service centers can retain on an ongoing basis a maximum of sixty days of current expenditures as working capital in their operating fund with advance approval. The request should be directed to the Restricted Funds Department/Cost Accounting Office.

1. Funds or transfers from non-federal sources or an existing fund balance can be used to acquire the working capital amount.
2. Cost to accumulate working capital cannot be included in internal or federal user rates.

II. Chapter 1: Creation of Service Centers

A. Planning for Service Centers

The goal of NMIMT service centers should be consistent—providing service and recovering costs while achieving break-even. Realizing these goals require careful planning and preparation on the part of research or academic administrators and faculty. One way to accomplish this is to address issues such as those listed below:

1. Determine whether there is a current and continuing need for the type of service center being contemplated.
2. Determine if the service is available elsewhere at NMIMT or external to NMIMT.
3. Determine whether the service center will be in competition with local outside vendors.

If, after having dealt with these and other relevant issues, the department/research center plans to initiate a new service center, the information explained in the following section should be provided to the Restricted Funds Department/Cost Accounting Office prior to the commencement of any operation.

A person must be designated to serve as the Service Center Manager (SCM). The responsibility of SCM can be added to an existing position or may be a person working exclusively for the service center. As appropriate, the level of effort must be charged to the service center.

B. Review and Approval of Service Center Funds

A proposal to establish a service center should be processed through the Restricted Funds Department/Cost Accounting Office sixty days prior to the requested commencement of operations so as to allow sufficient time for review, feedback, approval and fund creation. A Service Center Registration Form (Exhibit B) is available on <https://www.nmt.edu/cost-accounting-office> or in the Cost Accounting Office. The reasons that this process is required include:

- Providing direction and assistance as needed.
- Becoming familiar with the type of operation being proposed.
- Ensuring that all service centers have established adequately-documented rate structures, controls, and operating methodologies.

Once the SCM has discussed the logic and feasibility of the proposed service center with one of the cost accountants, the proposal will be routed in order to get all necessary approvals. Any questions or concerns arising out of the review process will be addressed either in a memo or email from the Cost Accounting Office to the originator of the request or, if necessary, via a meeting.

A proposal to establish a new service center or amend/update an existing service center must contain the following information:

1. The Service Center Manager's contact information.
2. The service center name as it will appear on the financial reports.
3. A description of the product(s) or service(s) to be provided, and the potential users.
4. An explanation as to how the service center rate will be determined, including:
 - A detailed annual expense budget for the proposed service center.
 - A description of the activity base, its appropriateness, and the projected level of activity for the first year of operation.
 - The rate calculation using the proposed budget amount and the projected level of activity for the first year of operation.
5. Complete a [Funds Setup Form](#).

A new fund will be established by the Budget and Analysis Department upon review and approval of the above documentation. If a line-item budget is desired, it should be requested prior to fund setup.

C. Responsibilities of the Service Center Manager

Service center charges are subject to audit as long as grants or contracts, which they charge (either directly or indirectly), remain subject to audit requirements. Service centers are also subject to internal and external auditors to evaluate compliance with NMIMT policies and accounting practices. Therefore, service center activities should be adequately documented and records maintained to substantiate expenditures, billings, and cost transfers. **The audit may occur several years after the user is charged and the service center obtains cost recovery.**

Responsibilities of the Service Center Manager include:

1. Preparation and submission of annual budget with justifications.
2. Documentation as to how the charge rate(s) were calculated.
3. Retention of the Restricted Funds Department/Cost Accounting Office rate validation letter which will confirm the rates have been reviewed and validated as of a stated date. Any change in rates will require a new rate validation form as of a new stated date.
4. Maintain supporting documents related to incurred expenditures.
5. Maintain records supporting utilization.
6. Maintain records supporting the amount and basis of user billings (revenues).
7. Operate center at break-even over time and within budget.
8. Invoice users on a monthly basis.
 - Use a Journal Voucher (JV) for internal users.

- Use an invoice for external users.
- Invoices for external users must include on-campus indirect cost rate in place at the time the service was provided and Government Gross Receipts Tax (GGRT) if applicable.
- Agreement to provide services for external entities may be evaluated by RFD/CAO and should be based on the contract template for such services.

D. Responsibilities outside the Service Center

1. Establish and close service center funds – **Budget and Analysis.**
2. Process accounting transactions – **Service Center Manager and General Accounting.**
3. Review Service Center rates and route for necessary approvals – **Restricted Funds Department/Cost Accounting Office.**
4. Monitor Service Center Financial Operations – **Restricted Funds Department/Cost Accounting Office.**
5. Provide billing, accounting, and contact assistance for service centers – **Restricted Funds Department/Cost Accounting Office.**

III. Chapter 2: Accounting, Budgeting, and Billing Considerations

A. Cost Accounting Guidelines

a. *Accounting Practices*

A service center must consistently follow sound cost accounting practices/standards, including rate setting methodology and billing/charge out practices. Cost accounting practices must not be changed merely for budgetary or administrative convenience.

b. *Associative Concepts*

In determining cost recovery, remember these three things:

1. **You can only recover costs once.**
2. **You must recover all costs.**
3. **Charge more for less and less for more.**

Note: "Charge more for less and less for more" applies to situations where rates are developed for full units and partial units such as Playas and their zones. For example, rates that are based on days need to charge less per hour for full days and more per hour for partial days. The reason is that selling the remaining partial day is difficult. If the rate for a half day is eighty percent of the rate for a full day, this will encourage a customer to purchase a full day. If they do not purchase the full day, the most you will lose if unable to sell the remaining partial day is twenty percent of cost recovery.

c. *Basis for Direct Charges*

The costs of a service/product will be charged directly to customers based on:

1. Actual consumption or use of the service/product multiplied by the billing unit.
2. A schedule of billing rates that does not arbitrarily discriminate between types of users. Rates invoiced to external users must, at a minimum, include the direct-cost rate charged to internal users plus current on-campus indirect cost rate.
 - This basis is required in order not to use state facilities to unfairly compete with private enterprises.
 - It assures recovery of the total cost (both direct and indirect).
 - It does not violate the state anti-donation clause

Note: Service center use provided to a sponsored project is charged the direct-cost charge from the service center via a JV and computer generated indirect cost when billed by RFD. If an external user is not invoiced both the direct and indirect cost when invoiced by the service center, then the external user is receiving the cost at a lower total cost than a sponsored project. This would arbitrarily discriminate between types of users.

d. *Billing Rates*

Billing rates should only include costs that are:

1. **Reasonable** costs are those necessary for the operation of a service center or cost center. This will usually include salaries; wages; other employee related expenses; operations; travel; and associated administrative charges. Capital usage and surcharges may also be charged in the billing rate if appropriate. Contact a cost accountant for clarification.
2. **Consistently applied** according to generally accepted accounting principles.
3. **Properly allocable** to services/products in accordance with relative benefits received or other equitable relationship.
4. **Allowable**. Unallowable costs (see Unallowable Costs) cannot be included in billing rates charged to Institute funds or the federal government.

Note: Service centers should not incur unallowable costs unless other sources of funds (for example, external users) are available to cover them.

e. *Break-even Expectation*

Service center billing rates should be designed to recover the aggregate cost of a service/product over a defined break-even period (i.e., revenues = expense). A few service centers are operated as long-term pricing or break-even centers. Because of their unique nature (initial large capital equipment outlays, volume fluctuations, or market limitations on annual rate increases) such centers require longer than one year to recover or spread out their operating costs. In this respect, carry-forward adjustments to future-year rates may need to be allocated over an extended period in order to accomplish breakeven in an equitable manner to users. An example would be the Playas Training and Research Center (PTRC).

f. *Capital Usage Factors*

Billing rates cannot include the acquisition cost of capital expenditures at the time of purchase because this would skew results of operation for the period. Instead, costs are recovered through a **capital usage factor** related to the use of service center equipment over its expected useful life. This includes items such as depreciation, principal portion of debt repayment or lease costs associated with equipment. A capital reserve fund should be established in order to upgrade or replace equipment. The transfer will be equivalent to the amount included in the rate for depreciation/usage.

g. *Cost Centers/Pools*

Within a service center, only similar types of services/products should be grouped together in a unique cost center. Cost pools are used to group costs for allocation to benefiting functions within a service center.

h. *Credit Card Payments*

If an external user wants to pay an invoiced amount with a credit card, the Service Center Manager (SCM) should ask the External User to contact the Cost Accounting Office (CAO). Make sure that the CAO has a copy of the invoice. The external user will give the credit card information to the CAO who will then code the invoice and take the invoice and credit card information to the cashier in Fidel. Once the information is processed, the CAO will shred the credit card information and notify the SCM that the payment has been posted.

i. *Disclosure Statement*

All rate sheets and quotes should contain the following disclosure statement or one that is approved by the Cost Accounting Office in advance of using.

Service center rates are direct costs subject to change. Rates quoted for proposed work are an estimate based on the rates in place at the time the quote is presented. The rate in place at the time the service is provided will be the rate charged for the service. The rates are subject to change no less than annually. When rates change, they change for all users of the service.

j. *Established Price List*

Each service center must maintain a published price list for internal purposes and identify all services provided. Any change or exception for extraordinary circumstances must be cleared by the Cost Accounting Office and once charged, must be part of the rates offered to all users for the balance of your rate period. This will require an explanation memo and a new rate validation letter. This can be in the form of an email. NMIMT intends to publish service center rates on the web site as soon as a process is developed.

k. *Fiscal Year*

NMIMT operates on a fiscal year that starts on July 1st and ends on June 30th. The reason for suggesting this timeframe for service center operations relates to the need to capture each fiscal year's operating results and to incorporate these results into annual financial statements. In order to maintain consistency with the NMIMT financial cycle, it is recommended that all NMIMT service centers account for operations during the same time period.

l. Frequency of Billing Rate Calculations

Service centers should review billing rates annually (to coincide with NMIMT's fiscal year) and adjust them as necessary to achieve a break-even condition. At any time during the rate period that it becomes clear the rates in place are generating a large surplus or deficit, contact the Cost Accounting Office to propose amended rates for the balance of the rate period. All rate adjustments will start at the beginning of the month following the validated amendment to rates.

m. Transfers

Except for transfers to the equipment reserve fund, it is normally not appropriate to transfer funds out of a service center fund. Prior or current year surpluses require an adjustment to future rates which does not involve a transfer. Any transfers (other than those to the equipment reserve fund) must be approved in advance by the Director of Finance.

B. Budgeting for Service Centers

Departments responsible for service centers may have the option of budgeting service center funds to facilitate greater ease in measuring actual operating performance. If requested by departments and upon validation of rate proposals, budgets for service center funds can be entered in detail sufficient to allow monitoring of performance throughout the fiscal year. This action will be taken by the Budget and Analysis Department. If a department wishes to modify a service center budget during the fiscal year, the request must be reviewed by the Cost Accounting Office first. Once the validation is completed, the service center manager may take the request to the Budget and Analysis Department for entry.

C. Monthly Billings

a. Internal Users

Billings to university departments, grants, or contracts are done regularly via a journal voucher (JV) or automatic entry (i.e. ISD charge). Such billings become part of the purchasing fund's Modified Total Direct Cost (MTDC) base for F&A (indirect cost) calculation purposes. Thus service center charges draw their share of F&A as a part of the cost objective to which their service is rendered.

The following are the accounts that should be used to record revenue to a service center from an **internal user**. You will normally only use the first one - **560106**.

560106 - Internal sales of service

560107 - Internal sales of materials

560108 - Internal sales GGRT (taxable sales)

b. External Users

Billings to external users are done regularly via an invoice by the service center manager. See Sample Invoice for External Users for invoice example. Such billings should include facilities and administrative costs (F&A costs, formerly indirect costs) using the **current on-campus research rate**. Other charges normally automated via the BANNER system should also be included in invoices to external users. An example is the EMRTC facility support rate audited and approved by ONR/DCAA and automated via the BANNER system. Unlike indirect costs, the EMRTC facility support rate is a direct-cost rate subject to change as needed. In the future there may be other service centers that fit this description.

When applicable, Governmental Gross Receipts Tax (GGRT) must be charged.

External customers of a service center may not be charged a rate less than that charged to internal users. However, **external users may be charged at a higher rate in an effort to promote full costing and in order not to unfairly compete with private enterprise.**

The recovery in excess of direct cost (overhead, Fair Market Value [FMV] adjustment) will be moved out of the service center fund into another fund set up to provide discretionary funds or additional capital reserve funds for the service center. If charged, GGRT will be moved to the liability fund for payment to the state. The reason for this is to keep it possible to compare service center operational costs to operational income at the end of the rate period for determining deficit or surplus amounts to roll forward to the next rate period.

The following are the account codes that should be used to record revenue from an external user to a service center (SC). The one to use will depend on the source of the revenue.

560000 - External sales of service (direct cost recovery set by published rate)

560001 - External sales of materials (not generally used)

560002 - External sales GGRT (taxable sales)

560006 - External sales FMV adjusted (Private industry market price – SC cost)

560007 - External sales SC Overhead

- Index **R56007-560007** for amount that goes to NMT
- Approved Fund # - **560007** for SC share of overhead if authorized

c. Match Revenue and Expense-within Period

In order that the revenues recorded in the accounting system are closely aligned with the timing of the expenditures incurred that generated the revenues, billings for goods, and services should be processed monthly. At year end, billings for the month of June should be prioritized so that they are recorded on the accounting system by no later than the second closing for June.

Should a department not be able to meet this timeframe, a listing of unposted internal billings and unpaid external billings should be provided to the Cost Accounting Office to allow for the accrual of revenues in the same fiscal year in which they were earned. Only by matching all entries for each year's fiscal activity can a reasonable determination be made of the operating results for the service center. Care should be taken at the end of the next/new fiscal year to exclude the list of unposted internal billings and unpaid external billings from the past fiscal year that post in the new fiscal year from inclusion in the income and expense consideration at the end of the new fiscal year. Otherwise they will be considered twice. This cycle will repeat each year.

D. Documentation of Costs

It is the responsibility of the service center manager to maintain and provide, as requested, all copies of documentation pertinent to the activities of service centers. Examples of situations where such documentation would be requested include:

1. In the event of questions arising from billed users, the department should provide copies of all records showing the time period for services rendered, calculation of relevant amounts, etc.
2. Under audit, copies of source documents (e.g. vendor invoices, purchase orders, etc.), internal and/or external billings, supporting calculations, depreciation schedules for equipment, etc. must be provided.
3. During rate reviews and subsequent fiscal year activities, copies of documentation which support current rates and operating results must be provided. See Annual Rate Validation Form.

IV. Chapter 3: Allowable and Unallowable Costs

Costs incurred by service centers should be in accordance with NMIMT policy, *Cost Accounting Standards*, and the Office of Management and Budget (OMB) *Circular A-21*, "Cost Principles for Education Institutions". See Allowable and Unallowable Costs in Rate Calculation for illustration.

The following information should be considered by departments having service center responsibility prior to the incurrence of actual costs.

A. Salaries, Wages, and Fringe Benefits

1. The costs of salaries, wages, and fringe benefits of personnel directly involved with (i.e. devoting effort to) service center activities are allowable and **must be charged to the service center**. These costs should be included in the preparation of each rate proposal so that each individual's function, relationship to the service center, and estimated level of effort to be devoted are clearly stated. Significant variances will require adjustment of estimates in subsequent rate proposals. Fringe benefits should be charged in the same relative percentage as the level of effort and at NMIMT approved rates.
2. Institutions sometimes charge only the cost of the materials and supplies through the billing rate. The salaries of the personnel that operate the center or provide the service are not included in the billing rate. They are allocated to other functions like general or department administration. **The government views this as a CAS 502 violation (similar costs in like circumstances as both direct and indirect)**. This is not allowable.

B. Materials, Services, and Supplies

Materials, services, and supplies necessary to carry on the business of service centers are allowable. Charges to users must be for supplies used to perform the service and not for "excess" not used.

C. Equipment Depreciation

1. **Non-depreciable Equipment** - Equipment included in the institute's indirect cost rate (F&A) cannot be included in service center rate proposals.
2. Before a service center may develop rates that include equipment depreciation, they must first receive **prior approval from the Associate Vice President for Budget and Analysis**.
3. **Depreciable Equipment** - If equipment is to be depreciated, it should be shown in rate proposals. Equipment used in service centers can have different useful lives than those in general institute operations, but a shorter life must be defended and approved.

D. Travel

The costs of travel **related directly to and necessary for the operation of service centers** (i.e., conferences, meetings, and local travel) are allowable. Travel related to business development is not allowable and must be charged to a discretionary fund or external users.

E. Other Direct Costs

Other direct costs not identified above are allowable to the extent that they relate directly to and are necessary for the operation of service centers and are not specifically unallowable under NMIMT policy, *Cost Accounting Standards* or *OMB Circular A-21*.

F. Indirect Costs

Recovery of facilities and administrative costs (F&A costs, formerly referred to as indirect costs) at the current federally negotiated rate from external users of service centers is allowable. Indirect costs will be charged to Sponsored Projects (grants and contracts) based on the direct charge made to the restricted fund from the service center fund and applied according to the terms and conditions of the award.

G. Unallowable Costs

The term **unallowable cost** does not mean that the charge is unlawful, improper, or even wrong. In the context of cost recovery as defined in *OMB Circular A-21*, it means that the federal government will not participate either directly or indirectly in the cost. A service center may not charge an unallowable cost to an internal user. Even if the service center never charges a federal agreement directly, most internal funds become part of the indirect cost recovery process and thus are in some measure indirectly charged to the federal government. See *Unallowable Costs, Monthly Billings, or Allowable and Unallowable Costs in Rate Calculation* for more on this subject.

The principles for determining whether a given cost is allowable or unallowable are discussed in Section J of *OMB Circular A-21*.

V. Chapter 4: Rate Development

A. The Basic Equation

A **service center rate** may be defined as the cost per unit of output to recover the expenses of the service center and achieve a break-even financial position. In its most basic form, a service center rate may be expressed, as follows:

$$\frac{\text{Budgeted Expenses +/- Prior Year Over/Under-recovery}}{\text{Budgeted Level of Activity (Usage Base)}}$$

The budgeted usage base can be further defined as the volume of activity estimated to be performed or produced, expressed in terms of units. Examples are labor hours, machine hours, or any other unit of measurement appropriate to the type of activity. The resulting rate is then charged to users of the service center based upon actual services performed and/or products delivered.

For example, a computer costs approximately \$120,000 per year to operate and has an estimated usage (activity level) of 1,500 hours during the year. The resulting hourly rate would be calculated as $\$120,000/1,500 \text{ hours} = \80 per hour. A researcher using the computer for 4 hours would then be charged \$320, or $4 \times \$80$. See Financial Management of Service Centers for more detail.

While many service centers have rates that are more complicated by virtue of offering multiple services, having pricing that is contingent upon types and/or levels of usage, etc., most rates can be reduced to a simple equation such as the one illustrated above.

B. Types of Usage Bases

The usage base, or activity level, is used to arrive at a billing rate which, when applied to actual usage, reasonably allocates service center costs in proportion to those service center customers receiving its benefits. Selection of an appropriate usage base is essential to ensuring that users are charged only their fair share of the actual costs of operating the service center.

Two approaches to rate development are available to determine an appropriate usage base: consumption and output. Both distribute costs based on a unit of measurement, such as hours.

The consumption approach is used when expenses are directly proportional to how much of a unit of measurement is consumed. The output approach is used when expenses are related to the number of units produced in a year. Examples of both approaches are explained and illustrated in Sample Rate Calculations.

C. Treatment of Over/Under-Recoveries

It normally is not possible to predict exactly what rate(s) will result in having achieved a break-even financial position at the end of the fiscal year. For this reason, it is necessary to account for over-recoveries (surpluses) and under-recoveries (deficits) annually so that they may be factored into any new rates. See Financial Management of Service Centers.

Any over- or under-recovery for a given fiscal year should be considered as a separate line item in subsequent year budgets submitted as a part of the annual rate proposal process.

D. Pricing of Multiple Services

Departments with service centers offering multiple services should calculate rates appropriate for each service (cost center). Where the calculation of separate rates for multiple services is not feasible, an average rate may be calculated, provided that the user base of the different services is approximately the same and the basis for rate setting is equitable. In other words, one user may not be charged more than another user for the same service.

Providing more than one service may sometimes make a surplus on some services and a loss on others. Service centers must ensure that there is no cross-subsidization between user groups. Combining the results of various services is not acceptable if the mix of users of each service is different; that is, if higher prices charged to one set of users are subsidizing losses charged to a different group of users.

VI. Chapter 5: Monitoring Performance

A. Annual Rate Proposal and Review Process

Research centers with annual direct operating costs of less than \$100,000 are not required to perform a formal cost study. **They are required to supply the Cost Accounting Office (CAO) with a completed service center form and a copy of their posted rates for review and approval of transactions.** The CAO should be notified of any change in practice or rates. All other service centers must follow the steps for accomplishing rate proposal and review process as follows:

1. All service center operation cycles should begin on July 1st and end on June 30th with the second closing of the institute's books.
2. Once the initial rate structure of a service center has received approval, rate proposal information for all subsequent fiscal years should be submitted as soon after the close of the fiscal year as possible, but no later than August 30th. It should include the following:
 - The annual financial operating report for the year just ended.
 - The proposed rate structure for the current year. If rate(s) are based upon calculations previously validated by the CAO and there have been no changes in methods, only a listing of proposed rates is required.
 - A revenue and expense budget incorporating the final surplus/deficit for the year that just ended, if any (recommended, not required).
 - A description of any changes in methods from those previously validated by the CAO. If there have been any changes in methods used in calculating rates, a new rate proposal may be requested by the CAO.
3. The CAO will review all rate proposals, including those that are based upon previously approved rate structures and will notify departments when completed. Rate proposals normally will be reviewed by the CAO in the order received.
4. A mid-year review of service center operations may be conducted by the Service Center Manager (SCM) based upon the first six months of fiscal year operations. If a service center experiences an exceptional operating surplus/deficit as of this date, the SCM should contact the CAO and request an adjustment of rates to be charged during the second half of the fiscal year.

For all proposed new service centers, rates should be submitted at least 60 days prior to the start of the fiscal year, as specified in Chapter 1: Creation of Service Centers. The above steps will become effective after the first complete year of operation under a CAO-approved rate structure.

B. Annual Financial Operating Reports

It is essential in any operation that a periodic assessment of performance be conducted. To facilitate this review and provide a format for summarizing revenues earned and expenditures incurred, a financial operating report should be prepared. As stated above, an annual financial operating report is required as part of the rate proposal and review process. The results of operation will be used to determine, among other things, that service centers are operating at or near breakeven and that expenses are allowable and properly allocated to service center funds.

Exhibit F entitled Operating Report – Blank shows the recommended format that may be used when preparing annual financial operating reports. While departments are free to select alternative formats, the following key elements should be contained in all reports submitted to the Cost Accounting Office for rate review purposes:

1. Statement of the time period for which the report is being prepared. Normally, this period will coincide with institute's fiscal year from July 1st to June 30th.
2. Breakdown of revenues by source. At a minimum, the breakdown should include revenues from external and internal billings. It also is recommended that usage for instructional purposes be segregated from usage for research purposes.
3. Breakdown of expenditures by cost element. This section of the report should include at least the type of expenses shown on Allowable and Unallowable Costs in Rate Calculation.
4. Totals for revenue and expenses and a total showing the result of subtracting expenses from revenues to yield net surplus/deficit from operations.
5. The amount of any institute or other subsidy.
6. All financial operating reports should state clearly the name of the service center, responsible department, operating fund number, reserve fund number(if any), and contact person's name, box number, telephone number, and e-mail address.
7. Service center rates are validated periodically to ensure that charge rates were at or below cost during the prior period(s). This validation work is scheduled and managed by the Restricted Funds Department/Cost Accounting Office with significant assistance from the responsible center or Unit Financial Administrator. Accurate tracking and reporting (including detailed supporting documentation) for expenses and revenue entries is critical to the timely performance of service center rate validations.
8. Existing (previously approved) service center billing rates where a significant amount of charges were posted to sponsored projects will be suspended if this validation process is not completed in a timely fashion. The Restricted Funds Department/Cost Accounting Office will notify the responsible Institute, School, Center, and Unit contacts at least thirty days prior to this action.

Note: Due to the administrative requirements for managing service and recharge centers, there should always be a clear business case for establishing separate service/recharge center charge rates. Center rates that are not documented, supported, and validated as described above may not be charged to externally-funded sponsored projects.

Any questions regarding the preparation of annual financial operating reports may be addressed to the Restricted Funds Department/Cost Accounting Office in Wells Hall, room 4.

Senior Cost Accountant,
575-835-5781
Wells Hall, room 4

If the Senior Cost Accountant is not available, then contact the Cost and Technical Analyst II at 575-835-6410, in Wells Hall, room 7.

VII. Chapter 6: Post-Operation Requirements**A. Record Retention**

Department copies of source documents for revenues and expenditures of service centers should be maintained by departments for a period of no less than five years following the end of each fiscal year. Other documentation, such as original time logs which are the basis for determining amounts to be billed, should be maintained for at least seven years, in accordance with Internal Revenue Service (IRS) requirements.

B. Audits

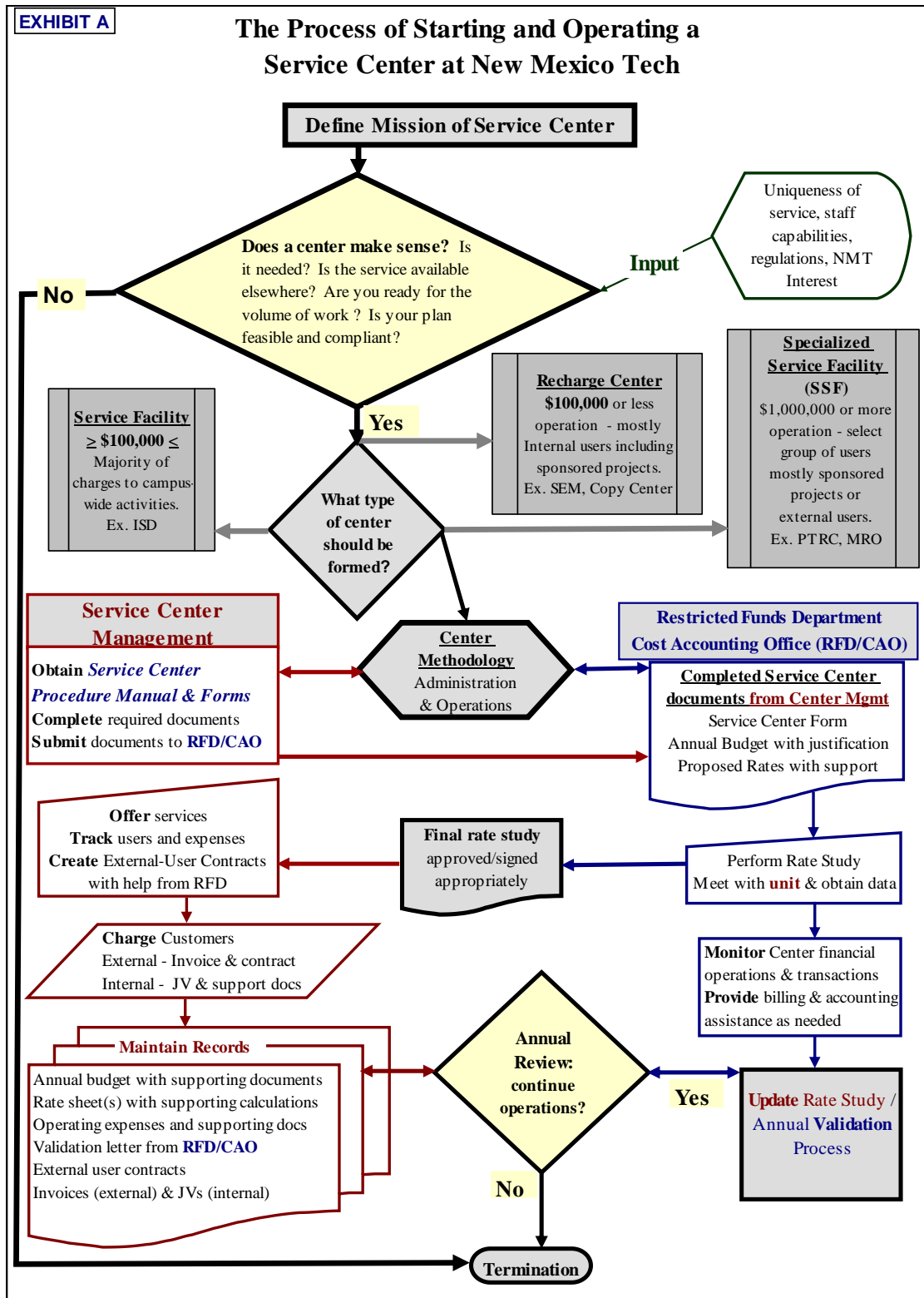
Audits of NMIMT may require participation by departments responsible for service center operations when the scope of these audits warrants it. In such cases, the Service Center Manager will be contacted as far in advance as possible by the Cost Accounting Office. An appropriate staff member will assist service center personnel in identifying any documents selected for audit that cannot be located.

VIII. List of Exhibits

- A. The Process of Starting and Operating a Service Center at NMIMT
- B. Service Center Registration Form
- C. Financial Management of Service Centers
- D. Sample Rate Calculations
 - D1 – Estimating Labor Hours (Consumption)
 - D2 – Estimating Unit Cost (Output Approach)
- E. Allowable and Unallowable Costs in Rate Calculation
- F. Operating Report – Blank
 - F1 – Operating Report - Example
- G. Sample JV for Internal Users
 - G1 – JV Example
- H. Sample Invoice for External Users
- I. Annual Rate Validation Form

All exhibits and various other templates for rate development are available in electronic format upon request from Restricted Funds Department/Cost Accounting Office.

A. The Process of Starting and Operating a Service Center at NMIMT



B. Service Center Registration Form

<p>EXHIBIT B</p> <p>NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY RESTRICTED FUNDS DEPARTMENT/COST ACCOUNTING OFFICE SERVICE CENTER REGISTRATION FORM</p> <p>(Please complete all information and return this form to Cost Accounting Office in Wells Hall Room 4)</p>				
Service Center Name: _____				
Initiating Department: _____			SC Fund No: _____	
Service Center Manager	Title	E-mail address	Phone	Bldg/Room#
_____	_____	_____	_____	_____
<p>Attach a separate sheet, if necessary, to complete any of the following:</p> <p>Description of Activity, including products and/or services and anticipated users (internal vs. external)</p> <p>Describe the usage base to be used in the rate calculation (i.e., labor hours, number of units processed, machine time, number of users, number of samples, number of copies, pages, etc.):</p> <p>Describe how records of usage will be accumulated and maintained:</p> <p>Identify equipment to be used & method of recovery:</p> <p>Before submitting this completed form to the Cost Accounting Office, please also attach an estimated budget (example provided) for a full operating fiscal year of the service center and an illustration of how proposed rates were calculated (If it is proposed that the service center begin operations on a date other than July 1, please also provide a proposal and budget for the part of the year in which the service center will be operating.) Any question regarding the completion of information on this form or on the required attachments may be addressed to the Cost Accounting Office, Wells Hall, Room 4, 835-5781. Cost Accounting Office retains original, fully-executed copy and returns a copy to the Service Center Manager.</p>				
Approval Signatures:				
Service Center Manager	_____	Date:	_____	
Department Director/Chair	_____	Date:	_____	
Cost Accountant/RFD	_____	Date:	_____	
Director of Finance	_____	Date:	_____	
Assoc VP Budget & Analysis	_____	Date:	_____	
Cognizant VP or Director	_____	Date:	_____	

C. Financial Management of Service Centers

EXHIBIT C

NEW MEXICO TECH

Page 1 of 2

**RESTRICTED FUNDS DEPARTMENT/COST ACCOUNTING OFFICE
FINANCIAL MANAGEMENT OF SERVICE CENTERS**

BILLING RATE COMPUTATION

A service center rate is the cost per unit of output. Output is the basis used to recover the expenses of the service center. To compute the rate, service centers should use the following equation:

$$\frac{\text{Budgeted Expenses +/- Prior Year Under/Over Recoveries}}{\text{Budgeted Usage Base}}$$

Budgeted usage base is the volume of work expected to be performed, expressed in units.

The two most commonly used methods to measure activity are:

Consumption Base - This type base is used when expenses are directly proportional to how much of a unit of measurement is consumed. For example, if labor and equipment usage costs can be accurately identified as being consumed on an hourly basis, the service center would base its charges on the number of hours of service provided.

Output Base - This type of base is used when the costs of the center are most accurately identified by the number of units produced per year. For example, a machine used to test samples where each test requires approximately the same amount of labor might base its charges on number of samples tested.

Example: a computer costs approximately \$120,000 per year to operate (total allowable costs) and has an estimated activity level of 1,500 hours per year. This results in a rate of $\$120,000 / 1,500 \text{ hours} = \80 per hour . If a researcher uses the computer for four hours for a sponsored project, his or her award is charged 4 hours X \$80/hour or \$320. Once the direct cost of \$320 is charged (using a Journal Voucher) to the sponsored project, the cost is subject to the indirect cost terms of the sponsored project. If the indirect cost rate for the sponsored project is 30%, then the total cost of the 4 hours of computer time is \$416 to the awarding agency. $[(\$320 \times 30\% = \$96) (\$320 + 96 = \$416)]$. The service center receives \$320.

A service center must develop rates so that revenues offset expenses over a reasonable period of time. A service center's surplus or deficit for a given fiscal year should not exceed 10% of annual operating expenses. Any service center with a surplus or deficit greater than 10% of annual expenses at the end of the fiscal year must submit a balance liquidation plan to the Cost Accounting Office. Excess balances should be liquidated within two years.

To the extent that a surplus or deficit is within the break-even range of +/- 10%, that surplus or deficit must be carried forward and the rates adjusted in the following period.

EXHIBIT C continued

For example, the rates submitted for approval for fiscal year ending June 30, 2008 would be based on the 2008 projected volume and expenses plus/minus under/over recoveries carried forward from the fiscal year ending June 30, 2007.

Example 1: Service Center with a Surplus at year end

\$80/hour was charged for 1,600 hours of actual use in FY2007 resulting in revenue of \$128,000. Total expenses were \$120,000 resulting in a surplus of \$8,000. In FY 2008, costs are anticipated to increase by 5% resulting in a budgeted expense of \$126,000. After subtracting the surplus from FY 2007, the basis for recovery for FY 2008 is

	FY 2007 Actual		FY 2008 Budgeted
Total Revenue	\$ 128,000	Budgeted Expense	\$ 126,000
Total Expenses	(120,000)	Less Prior Year Surplus	(8,000)
Surplus	<u>\$ 8,000</u>	Total Budgeted Expense	<u>\$ 118,000</u>

Since the surplus for FY 2007 is within +/- 10% $((128,000-120,000)/120,000=6.67\%)$, it will be subtracted from budgeted expenses in FY 2008, thereby reducing the rate. Assuming the hours of use are the same for FY 2008 as they were for FY 2007, then the new rate for FY 2008 should be \$73.75 per billable hour. $(\$118,000/1600 \text{ hours})$

Example 2: Service Center with a Deficit at year end

\$80/hour was charged for 1,600 hours of actual use in FY 2007 resulting in revenue of \$128,000. Total expenses were \$136,000 resulting in a deficit of \$8,000. In FY 2008, costs are anticipated to increase by 4% resulting in a budgeted expense of \$142,800. After adding the deficit amount from FY 2007, the basis for recovery for FY 2008 is \$150,800.

	FY 2007 Actual		FY 2008 Budgeted
Total Revenue	\$ 128,000	Budgeted Expense	\$ 142,800
Total Expenses	(136,000)	Plus Prior Year Deficit	8,000
Deficit	<u>\$ (8,000)</u>	Total Budgeted Expense	<u>\$ 150,800</u>

Since the deficit for FY 2007 is within +/- 10% $[(128,000-136,000)/136,000=6\%]$, it will be added to budgeted expenses in FY 2008, thereby increasing the rate. Assuming the hours of use are the same for FY 2008 as they were for FY 2007, then the new rate for FY 2008 should be \$94.25 per billable hour. $(\$150,800/1,600 \text{ hours})$

D. Sample Rate Calculations

EXHIBIT D

NEW MEXICO TECH
RESTRICTED FUNDS DEPARTMENT/COST ACCOUNTING OFFICE
SAMPLE RATE CALCULATIONS

The following examples provide a general overview of two common approaches to calculating service center rates. The "consumption" approach should be used in more labor intensive situations, while the "output" approach is used to equitably distribute costs of a common measurable product. It is important that the selected activity base relate directly with the elements of the operation that drive costs (i.e. labor or output) to keep rate calculations as simple as possible while yielding reasonable and consistent results.

EXAMPLE 1: ESTIMATING LABOR HOURS (CONSUMPTION)

A machine shop estimates that total expenses for the next year will be \$225,000. Given that there are 2 full time and 1 half time employees working in this service center and that the operations run Monday through Friday during normal University business hours, the following method could be used to develop a reasonable rate to be charged, based upon the "consumption" of the machinists' time:

1. Calculate estimated production hours per person @ 100% time:

37.5 hours/week * 38 academic weeks	1,425 hours
35.0 hours/week * 14 non-academic weeks	490 hours
Subtotal	1,915 hours
Less: Vacation (22 days * 7.37 hours/day)	162 hours
Holidays (10 days * 7.37 hours/day)	74 hours
Estimated contingency for sick and down time (10 days * 7.37 hours/day)	74 hours
Total estimated production hours per person	1,605

2. Multiply times the number of employees:

Number of employees = 2.5 * 1,605 hours/year 4,013 billable hours

3. Divide total estimated annual costs of operation by the number of billable hours to arrive at an hourly rate:

$$\text{Consumption Rate} = \frac{\$225,000 \text{ Total Costs}}{4,013 \text{ Billable Hours}} \quad \mathbf{56.07 \text{ per hour}}$$

EXAMPLE 2: ESTIMATING UNIT COST (OUTPUT APPROACH)

A department/research center with several copiers determines that the total cost of operating the machines for a year is \$72,000 and that 1.2 million copies are made by various users. The method below may be used to determine a unit cost per copy to charge users:

$$\text{Unit Cost} = \frac{\$72,000 \text{ Total Costs}}{1,200,000 \text{ Copies}} \quad \mathbf{\$ 0.06 \text{ per copy}}$$

EXHIBIT D1					
Fund 270555 - Machine Shop Proposed Budget & Rates FY 2010					
User	machine hours	Cost of Operations	Cost per Base Hour	Indirect Cost (IDC)	Charge Per Machine Hour
Base - Internal User	4,014	\$ 225,000.00	\$ 56.06	\$ -	\$ 56.06
Base + IDC			\$ 56.06	\$ 22.03	\$ 78.09
Plus FMV Adj.					11.91
External User Cost					\$ 90.00

Production Hours	Hours	People		
37.5 hours/week * 38 academic weeks	1,425			
35.0 hours/week * 14 non-academic weeks	490			
Subtotal	1,915			
Less: Vacation (22 days * 7.37 hours/day)	162			
Holidays (10 days * 7.37 hours/day)	74			
Estimated contingency for sick and down time (10 days * 7.37 hours/day)	74			
Estimated production hours/person	1,605	times	2.5	4,013.65

Costs of Operation:

Student labor - routine paperwork/support (100 hrs * \$7.5/hr = \$750+2%FB)	\$ 765.00
Labor (2 full-time and 1 half-time machinests) + fringe benefits	99,235.00
Materials	30,000.00
Maintenance & Repairs	50,000.00
Travel & training	15,000.00
Depreciation	30,000.00
Total proposed operating costs for FY2010	\$ 225,000.00

* **FMV** = Fair Market Value

External user is one who can not supply a NMT index/fund number to charge for the transaction.

EXHIBIT D2						
Fund 270555 - By-the-Page Service Center Proposed Budget & Rates FY 2010						
User	# of pages	Assistant Cost	Materials Cost	Cost Recovery	Indirect Cost (IDC)	Cost per Sample
Internal Unassisted	600,000	\$ -	\$0.04	\$24,525.00		\$ 0.04
Internal Assisted	590,000	\$ 0.04	\$ 0.04	\$46,683.75		\$ 0.08
External Assisted	10,000	\$ 0.04	\$ 0.04	\$ 791.25	\$ 214.43	\$ 0.10
* Plus FMV Adj.						\$ 0.05
# External User Cost						\$ 0.15
Est. annual samples:	1,200,000			\$72,000.00		

Assisted Jobs	User Type	#	Cost
Two students (3000 hrs * \$7.5/hr = \$750+2%FB)	Assisted	600,000	<u>\$ 22,950</u>
All jobs (including assisted jobs)			
Routine labor (1600 hrs * \$10 = \$5,000+23%FB)			21,120
Paper (\$5/reem of 500 pages)			12,000
Software upgrades			900
ISD Charges [(14 + 24) X 12] time 3 connections			1,368
ISD long distance			2,500
Copier leases			11,162
	Unassisted	1,200,000	<u>\$ 49,050</u>
Average per sample excluding IDC or FMV (not used as rate - check figures)	Average	1,200,000	\$ 0.06

* **FMV** = Fair Market Value

External user is one who can not supply a NMT index/fund number to charge for the transaction.

E. Allowable and Unallowable Costs in Rate Calculation

EXHIBIT E				
NEW MEXICO TECH				
RESTRICTED FUNDS DEPARTMENT/COST ACCOUNTING OFFICE				
ALLOWABLE & UNALLOWABLE COSTS IN RATE CALCULATION				
	External User	Federal or Internal	Recharge Center	SSF and Service Facility
Salaries	\$ 45,000	\$ 45,000		
Fringe Benefits	13,500	13,500		
Materials & Supplies	4,050	4,050	1	1
Travel	2,250	2,250		
Insurance	300	300		2
Rental or service contracts	500	500		
Other Expenses - Allowable	400	400		
Operations & Maintenance	1,000	1,000		2
Equipment repair	1,550	1,550		
Equipment depreciation	2,500	2,500	3	3
Allocation of related space	-	-		2 and 4
Sub Total	<u>\$ 71,050</u>	<u>\$ 71,050</u>		
Add				
Sales tax if/when applicable	500	-	6	6
Amt. Invoiced/JV'ed	<u>\$ 71,550</u>	<u>\$ 71,050</u>		
Less				
Unallowable Expenses		(10,000)	5	5
Sales tax if/when applicable	(500)		6	6
Cost of Operation	<u><u>71,050</u></u>	<u><u>61,050</u></u>		
Estimated units of service	1,550	1,550	7	7
External User Billing Rate	\$ 46		(Cost of Operation divided by Units of Service)	
Internal/Federal Billing Rate		\$ 39		
Indirect Cost:				
> Indirect cost is generated at the time the restricted fund burdens MTDC.				
> For External Users, call the Cost Accounting Office to find out what rate to use.				
Notes:				
1 Materials & supplies used, not "excess"				
2 University-wide service facilities & specialized service facilities only				
3 Equipment purchased with federal funds or included in NMIMT's indirect cost calculation must be excluded from the service center rate. If the equipment is recovered through the service center, Capital Reserve funds will be established for future replacement or upgrade of equipment. The transfer will be equivalent to the amount included in the rate for depreciation/usage.				
4 When burdening the SSF with space related costs, identify square feet occupied by the SSF. If SSF space is not identified to the SSF, the SSF space should be assigned to OIA.				
5 Unallowable expenses include advertising of services/products, alcoholic beverages, bad debts, entertainment, fines and penalties, goods or services not related to the service center.				
6 When applicable, gross receipts (sales) tax must be charged to outside parties. Also, revenue from outside parties may have Unrelated Business Income Tax (UBIT) implications. These charges are included on the invoice, but excluded for rate determination.				
7 Typical units: machine time, hours of labor, number of users, number of samples pieces of glassware, pages, etc.				

F. Operating Report – Blank

EXHIBIT F	New Mexico Tech	
Service Center Name: _____		
Responsible Department: _____		
Annual Operating Report: From: _____ To: _____		
Income:		
External Billings		
Direct Cost	plus +	\$ -
Indirect Cost	minus -	_____
GGRT	minus -	_____
FRV	minus -	_____
Total External		\$ -
Internal Billings		
NMT Internal Departments	plus +	\$ -
Federal Awards	plus +	_____
Non-Federal Awards	plus +	_____
Project Funds	plus +	_____
Subsidy (if appropriate)	plus	- _____
Total Internal		\$ -
Total Income		\$ -
Expenses:		
Salaries	plus +	\$ -
Fringe Benefits	plus +	_____
Materials & Supplies	plus +	_____
Services	plus +	_____
Travel	plus +	_____
Other Direct _____	plus +	_____
Other Direct _____	plus +	_____
Subcontracts	plus +	_____
External Rentals	plus +	_____
Equipment (Depreciation Only)	plus +	_____
Total Expenses		\$ -
New Operating (Surplus)Deficit		\$ -
Service Center Fund: _____	Captial Reserve Fund: _____	
Contact Person: _____	Office/Cell Telephone: _____	
E-mail: _____	Location Address: _____	
Notes: _____		


EXHIBIT F1		New Mexico Tech	
Service Center Name:		<u>Biology Research Lab</u>	
Responsible Department:		<u>Biology Department</u>	
Annual Operating Report:	From:	<u>April 1, 2010</u>	To: <u>April 30, 2010</u>
Income:			
External Billings			
Direct Cost	plus +	\$ 293.60	
Indirect Cost	minus -	(78.60)	
GGRT	minus -	(10.00)	
FRV	minus -	(5.00)	
Total External		<u>\$ 200.00</u>	
Internal Billings			
NMT Internal Departr	plus +	\$ 800.00	
Federal Awards	plus +	1,000.00	
Non-Federal Awards	plus +	1,200.00	
Project Funds	plus +	200.00	
Subsidy (if appropriate)		-	
Total Internal		<u>\$ 3,200.00</u>	
Total Income			<u>\$ 3,400.00</u>
Expenses:			
Salaries	plus +	\$ 1,500.00	
Fringe Benefits	plus +	345.00	
Materials & Supplies	plus +	800.00	
Services	plus +	100.00	
Travel	plus +	500.00	
Other Direct _____	plus +	20.00	
Other Direct _____	plus +		
Subcontracts	plus +		
External Rentals	plus +		
Equipment (Depreciation Only)	plus +	65.00	
Total Expenses			<u>\$ 3,330.00</u>
New Operating (Surplus)Deficit		<u>\$ (70.00)</u>	
Service Center Fund:	<u>270555</u>	Capitla Reserve Fund:	<u>930555</u>
Contact Person:	<u>Dr. I. C. Bugs</u>	Office/Cell Telephone:	<u>555-5555</u>
E-mail:	<u>icbugs@nmt.edu</u>	Location Address:	<u>Bio Bldg Rm 555</u>
Notes: <u>The suplus is minor so there will be no change in rates for FY11. We anticipate about the same level of users and expenses.</u>			

G. Sample JV for Internal Users

EXHIBIT G				
JOURNAL VOUCHER				Page 1 of 1
Rule Code				Document Number
				J
				Transaction Date
				MO / DAY / YEAR
DESCRIPTION (30 CHARACTERS AND SPACES)				
ORIGINATED BY _____				Entered
REQUESTED BY _____				
INDEX	ACCT	DEBIT	CREDIT	DESCRIPTION
DOCUMENT	TOTAL	0.00	0.00	0.00
EXPLANATION				BUSINESS OFFICE AUTHORIZATIONS

EXHIBIT G-1		Page 1 of 1		
Rule Code	JOURNAL VOUCHER			Document Number
				J
				Transaction Date
				05/13/10
				MO / DAY / YEAR
<u>Service Center charges for April 2010</u>				
DESCRIPTION (30 CHARACTERS AND SPACES)				
ORIGINATED BY <u>Dee Anay</u>				Entered
REQUESTED BY <u>I. C. Bugs</u>				
INDEX	ACCT	DEBIT	CREDIT	DESCRIPTION
103022	710001	80.00		1 - Unassisted
103022	710001	80.00		1 - Unassisted
ABCD10	710001	220.00		1 - Assisted
PXR90	710001	160.00		2 - Unassisted
A15010	710001	160.00		2 - Unassisted
A15010	710001	160.00		2 - Unassisted
270555	560106		860.00	
DOCUMENT	TOTAL	860.00	860.00	1,720.00
EXPLANATION				BUSINESS OFFICE AUTHORIZATIONS
<u>April 2010 Internal User charges for</u>				
<u>Thermal Analysis Service Center</u>				

H. Sample Invoice for External Users

		Invoice # _____			
		Date: _____			
Service Center Department: _____		Service Center Manager: _____			
Service Center Name: _____					
Customer Billing Information:		Terms of Payment: Due upon receipt			
Name: <u>XYZ Industry</u>		Make payable to: <u>New Mexico Tech</u> Mail to: New Mexico Tech 801 Leroy Place Socorro, NM87801 ATTN: Jane Adams			
Address: <u>Accounts Payable, PO Box 1234</u>					
City/State/ZIP: <u>Albuquerque, NM 87196</u>					
Phone: <u>505-555-5555</u>					
Contact: <u>John Doe</u>					
Service Date	Service Description	Quantity	Price	Amount	
7/9/2010	Sample analysis	1	\$ 320.00	\$ 320.00	
Please send a copy of invoice with payment.			Total Due	\$ 320.00	
NMT Distribution Purposes:					
Credit Index-Acct	Amount	Credit Index-Acct	Amount	If Applicable	Total Distribution
<u>270555 - 560000</u>	219.30	<u>R56007-560007</u>	43.09	G RTPAY - 210004	-
<u>122XXX - 560006</u>	14.52	<u>122XXX - 560007</u>	43.09	For Tangible Items	\$ 320.00

I. Annual Rate Validation Form

EXHIBIT I		Restricted Funds Department/Cost Accounting Office	
Service Center Annual Rate Validation Form - FY _____ (Most recent Fiscal Year end)			
(To be prepared annually for all approved Service Centers)			
			Fund #
Service Center Name:			
Current Location/Building:			
Department:			
Financial Manager:			
E-Mail Address:			
Phone number:			
Date of Latest Rate Study	Date:	(See attached page for current rates)	
Type of Service Center			
To be completed by Service Center Manager			Amount
FY__ Revenue Collections:	Revenue Account Code:		
	Revenue Account Code:		
	Revenue Account Code:		
	Revenue Account Code:		
	Total Revenues		-
Fy__ Expenditures:	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Expense Account Code:		
	Total Expenditures		-
	Results of Operation (Revenues - Expenditures)		-
Description of changes:			
Equipment Changes:			
Location Changes:			
Submitted by:	Name:	Date:	
To be completed by Restricted Funds Dept./Cost Accounting Office			
Review Procedures:	Service Center Rates are Acceptable: Yes:() No:()		
	Service Center Rates must be revised: Yes:() No:()		
	Service Center Rates to be cancelled: Yes:() No:()		
	Other Comments:		
Reviewed By:	Name:	Date:	
Approved By:	Name:	Date:	