The Cost Study Template is composed of eight worksheets, and they are organized to encompass the costing components shown in the following high-level diagram.



The worksheets will automatically perform calculations as formulas and links have been incorporated. To complete the study, <u>enter data into the green-shaded cells only and the template will update other</u> <u>relevant fields.</u> If you do not need all services, please feel free to use the excel function to hide the services you do not need.

Throughout the worksheets, budgets for the next fiscal year are made based on the best available historic data and projected changes in expenses and utilization; changes in staff and instrumentation, renegotiated service contracts, and newly awarded grants are examples of changes that affect the budgets. An accurate Cost Study is a vital planning tool for a Recharge Center since it captures the foreseen costs in the facility.

Instructions for Each Tab:

1). Description of Services:

Fill in the three Header cells in the upper left-hand corner of the sheet, as well as the Fiscal Year for the Study. Next, enter a short name for each Service Line. All of the proceeding fields will automatically populate throughout the Template. Complete the remainder of the green-shaded cells on the rest of the worksheet as applicable.

2). Effort Billable hours:

If no labor hours are involved, skip Tab 2) and 3).

Total Recharge Hours

Modify the "Total Hours Per Year" fields for each staff member if necessary. If there are multiple types of appointments, please ensure the accuracy of the total appointment hours for each staff (include hours charged to all Funding Sources). Modify "Vacation", "Sick", and "Holiday" hours as necessary to reflect

Office of Cost Studies March 31, 2016

the appointment (refer to HR for these figures). Enter a "% Salary on Recharge and Planned Subsidy" for each staff member. This Percentage Salary figure must match the Effort charged to the Recharge Chartstring and Planned Subsidy Sources included on the Summary tab. Other funding sources not utilized as subsidy should be excluded. Once the cells are entered and modified the "Total Hours" calculate properly.

Recharge Hours by Service

Only hours corresponding to salary charged against the recharge Chartstring and Planned Subsidy sources should be broken down here. Recharge hours not directly attributable to a Service Line must be accounted under the "Non-Service/Administrative Time" column. Under each "Service Line" offered by the facility, enter the total annual hours that each facility staff member spends on that "Service Line" in one of two categories. The first category, "Hours Per Year Providing Service To Users" corresponds to the annual hours each staff member spends providing direct service to facility users. "Hours Per Year Spent Supporting Service Line" corresponds to the annual hours each staff member spends on work related to a Service Line, but not directly in service to a user. This column includes repairs performed by facility staff, general upkeep and maintenance of equipment, setup and clean up time not attributable to any given user, and other time spent directly on the Service Line that cannot be directly mapped to any given user. Each sum of "Total Hours" on Direct Activities that appears in the lower-right cell for each Service Line must reflect all chargeable time directly attributable to the Service Line from all facility staff. When all hours have been properly distributed for each facility staff member, entries in the column titled "Are All Hours Allocated?" will all read "Yes". Staff hours spent directly on all Service Lines are automatically summarized by category with worksheet formulas.

Hours on Non-Service Activities

Hours spent on non-service activities will need to be manually broken down by category. Entries made in the "Recharge Hours by Service" section under "Non-Service Administrative Time" for each staff member will repopulate in the row entitled "Non-Service Recharge Activity Hours". In the green-shaded cells, below this line, please break down each staff member's non-service time by category until all hours are accounted. Once all Non-Service Hours have been broken down properly by category, entries in the row entitled "Are All Hours All Allocated?" will all read "Yes".

3). Salary & FB Exp:

Complete the green-shaded cells detailing a Total Base Salary for every facility staff member appearing on the "Effort Billable Hours" tab. Only salary on the recharge Chartstring and Planned Subsidy Sources will be included as a part of the Cost Basis for facility user fees by the calculation performed in the "Recharge/Planned Subsidy Salary" column on this page.

Note: Salary associated with Non-Service/Administrative time is reallocated to each Service Line on this tab at the bottom. This calculation is performed automatically by worksheet formulas with the following reasoning: the total salary corresponding to all facility staffs' Non-Service/Administrative time is distributed amongst the facility's Service Lines based on the relative size of that Service Line's direct labor expense.

4). Equipment:

There are three sections on this worksheet that interact with one another. The first section details Depreciation; the second section details Service Contracts; and the last section, "Allocation of Equipment Expenses to Services", consolidates the previous two sections and allocates these expenses amongst the appropriate Service Lines.

<u>Capital Equipment funded by sponsored projects cannot be depreciated.</u> If a portion of a Capital Item was paid by a sponsored project and then Northwestern paid another portion, Northwestern's portion of support may be eligible for depreciation. Capital Equipment is a category for items costing more than \$5,000 and with a useful life of at least one year. Please seek guidance from the Office of Cost Studies

on the eligibility of items and any assistance with processing depreciation journals.

5). Non-labor Exp:

Enter the total projected non-labor expenses for the facility in the appropriate green-shaded cells. The Net Expense on each row must be allocated amongst appropriate Service Lines in the facility. Do not include any expenses for Capital Equipment or Service Contracts on this worksheet; they should be placed on the "Equipment" tab.

6). SD in Aggregate:

Tab 6) and 7) on the Template are applicable to recharge centers over a year old. Complete the greenshaded cells only. Because the financial goal of a recharge center is to break-even over a period of time any surplus or deficit generated in the previous fiscal year should be carried forward into the new fiscal year for purposes of establishing a recharge rate. OMB A-87 permits a surplus in the amount of two months of operating expenses as working capital. These tabs will facilitate the calculation of the surplus or deficit for your facility.

The SD in Aggregate tab will reflect your total revenues and expenses for the recharge center. Completion of this tab is required except for a new recharge center. Instructions for this specific worksheet are located on the bottom of this tab.

7). SD by Service:

Completion of this tab is Not needed in the following scenarios:

- The surplus is less than 2 month working capital
- The year-end deficit is covered by Northwestern subsidy

If a recharge center provides multiple goods and/or services, this tab should be used to calculate the surplus/deficit for each goods or services line. The resulting surplus or deficit for each Service Line will automatically populate the "Surplus/Deficit to Include in Rates" row on the "Summary" tab.

8). Summary:

On this worksheet, calculate rates for all established Service Lines. There are four sections to this worksheet that require differing levels of review: "Expenses", "Utilization", "Rates", and "Reconciliation to Budgets".

Expenses

Expenses associated with each Service Line in the facility will flow down from the previous tabs. Please enter any planned subsidy amounts that will be used to reduce the Cost Basis for Service Lines on the "Planned Subsidy to Reduce Rates" row. Planned Subsidies should be entered as positive numbers.

Utilization

In the utilization section, please enter "Current FY Utilization" figures. These utilization figures must be entered with respect to unit measures in the facility (e.g. hours, runs, widgets sold, etc.) Please indicate the "Unit of Measure" below the utilization figures for each Service Line. The figures in the "Current FY Utilization" section provide a basis for the "Projected Utilization for Next FY" section. Projected utilization generally hews closely to the previous years' figures, unless the facility is brand new, a new Service Line was recently added to the facility, the facility anticipates changes for heavy users of facility services, or other circumstances portend projected utilization figures that differ from current year figures.

Rates

The "Projected Utilization" figures in each user category provide the basis for the "Calculated Billing Rate". This is figured by dividing net expenses by total utilization for all user classes. "Established Billing Rates" for users are based on the Calculated Rate with the following considerations: the "Northwestern Users' Rate" must be less than or equal to the "Calculated Billing Rate". Generally, F&A Costs should be added to the rates for External Academic Users, unless a formal agreement in place. External Commercial Users should be charged for F&A in addition to the "Calculated Billing Rate"; furthermore, our facilities cannot undercut the price of local businesses that offer competing services due to Northwestern's non-profit status.

Reconciliation to Budgets

The "Reconciliation to Budgets" section provides a check on the relationship among projected expenses, billing rates, and projected utilization figures. If the Established Billing Rate for internal Users is set the same as the "Calculated Billing Rate", and no subsidy is added in the "Other Subsidy" row, then the Cost Study will balance less "Unallowable Costs". "Unallowable Costs" includes the unallowable fringe amount calculated on the "Salary & FB Exp" tab. If no subsidy is planned, then the "Reconciliation to Budgets" section provides facilities with an excellent planning tool for projecting the following year's projected surplus or deficit, assuming that both expense and utilization figures are accurate. The final figure at the bottom right hand corner of the worksheet should project performance in the facility given accurate inputs. Also, the "Reconciliation to Budgets" section can be used frequently (at least once a quarter) to reconcile and compare the actual expenses and revenue against the projected figures throughout the fiscal year.