

# Developing Annual Budgets and Profit Planning

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Developing an Annual Budget is an integral part of a firm's strategic planning process. When developed in concert with the Profit Plan, an Annual Budget is an essential resource that will allow firm leaders to compare a firm's actual Year-to-Date (YTD) financial performance to its YTD Annual Budget.

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## Developing Annual Budgets

### Introduction

The Annual Budget, developed concurrently with the Profit Plan affords firm leaders the best possible method of establishing guidelines for the firm's operations and financial effectiveness over the course of the coming year.

The Annual Budget utilizes numerous financial components that are developed by the Profit Plan. For this reason, among many others, it is **important imperative** that these two financial 'tools' be developed concurrently to ensure the seamless sharing of essential data needed by both.

The Chart of Accounts provides a foundational format for the Annual Budget, in that the Budget will, in its most detailed form, utilize most, if not all, of the established major and sub-account line items. In fact, it would be advisable to use the Chart of Accounts as the primary organizing element for the Annual Budget. A detailed explanation and example follows in **Exhibit Table** 1.

Because the development of *the Annual Budget* ~~this document~~, like the *Profit* Plan, is an annually recurring process, it is advisable to begin its development in the latter stages of the fourth quarter of the preceding year. Mid-October, for those who have never developed an *Annual* Budget before, would not be too early to start the process. Starting early will allow sufficient time to thoroughly and methodically go through each step without the pressure of the coming year commencing before the Budget is completed and can be approved.

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**For details of the Chart of Accounts see Financial Management Systems (7.3)**

## Annual Budget

The Annual Budget, when properly developed, will include the Chart of Accounts numbers and data from the Profit Plan. In its initial format, the Annual Budget will resemble an expanded version of the Profit-Loss Statement (P-L). This expanded version (Tables 1-4) will include both fixed and variable expenses. *This format allows for every known or anticipated expense to be included. This level of detail ensures a greater possibility of capturing the expenditures for the coming year. Once this level of budget is as complete as possible, it would be reviewed by the appropriate firm leaders to make any final adjustments and to reach consensus on its approval.*

*Once approved, the* ~~By combining~~ the fixed and variable indirect expenses for the same major accounts *numbers can then be combined in*, a 'Collapsed' version (Table 25) of the completed, expanded version. ~~can be created.~~

~~Data~~ *The major accounts shown in* ~~from~~ this collapsed version would ~~can~~ then be *used to develop the approved Final Annual Budget version (Table 6). The approved Final Annual Budget would also be used as the basis for a* ~~inserted into the monthly P-L format as the third set of figures (dollars and percentages) being added to the monthly P-L format,~~ representing the YTD Annual Budget for each of the *respective* P-L line items. The purpose and benefit of including ~~the a~~ YTD Budget in the monthly P-L is to provide a comparison with the firm's actual YTD financial performance.

Refer to the Financial Management Systems article to see an example for the Profit-Loss Statement with the YTD Budget included.

The Annual Budget combined with the projections for Revenue, Direct and Indirect Expenses developed in the Profit Plan, creates a strategic financial plan illustrating the optimum results anticipated for the coming year. Reviewing the P-L every month on a line-by-line basis will indicate how the firm is doing compared to the respective YTD Budget. This will help firm leaders become better stewards of their financial resources. It will also facilitate sound business decisions in response to negative or positive trends that develop over the course of each succeeding month.

Without the Budget in the P-L, the YTD Actual figures represent only numbers and percentages' in a vacuum'. There isn't any relevant basis for evaluating these results, other than how they might compare to the empirical standards of the design industry. That will not provide the greater relevance, meaning and impact *than seeing* as the actual results *seen* side-by-side with its respective YTD Budget.

## **Annual Budget Format and Components**

The Annual Budget is formatted in four primary sections: Revenue, Fixed Expenses, Variable Expenses, and Miscellaneous Revenue and Expense. Each section, with its own components, is similar to Mattox Format of the Profit-Loss Statement.

### Section One – Revenue

Includes the exact same four components as the P-L: Fees Billed, Reimbursable Expenses Billed, Outside Consultants and Project Related Expenses.

### Section Two – Fixed Expenses

Includes Direct Labor Expenses and certain fixed Indirect Expenses.

### Section Three – Variable Expenses

Includes only variable Indirect Expenses.

### Section Four – Miscellaneous Revenue and Expense

Includes line items for each of the above two categories.

The accumulation of all of these line items will culminate in the determination of the projected 'Net Profit/(Loss)'.

Initially, the Annual Budget is best formatted as a 13-column document, with one column per month and the last column as the 'Total' for the year. This allows the designation of expenses to be shown for each line item, in respective months, rather than just a single total amount for the year. This will accommodate certain expenses which occur periodically, rather than monthly.

## Section One - Revenue

In Section One, the four Revenue line items (Fees Billed, Reimbursable Expenses Billed, Outside Consultants and Project Related Expenses) will be determined by the projections developed in the Profit Plan. Also, refer to the 'Revenue Component of the P-L' section of the Financial Management System article to see the breakdown for each of these four major account items.

In budgeting for Revenue, keep in mind that some of this revenue will come from available Backlog remaining at the end of the year. This is revenue that has already been 'captured' by signed contracts for existing, active projects and will likely be billed to clients in the coming year. Therefore, the projected Revenue needed for the coming year, anticipated to be generated by new project contracts, will be reduced by the amount of the applicable Backlog. Once the Revenue amount is determined, it could also serve as a minimum target for the coming year's Marketing Plan.

**Table 1: Annual Budget Revenue Component**

Account No.	REVENUE	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentage
<b>4100</b>	<b>Revenue</b>														
4110	Fees Billed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
4150	Reimbursable Expenses Billed	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
4170	Outside Consultant's	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0.	
4190	Project Related Expenses	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0.	
<b>A.</b>	<b>TOTAL NET OPERATING REVENUE</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	<b>100%</b>

## Section Two – Fixed Expenses

In Section Two, the Fixed Expenses, consisting of Direct Labor Expense and fixed portion of Indirect Expenses are also determined by the projections developed in the Profit Plan.















7445	Promotional Events	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
7450	Photography	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
7460	Subscriptions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
7470	Contributions	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
7480	Marketing Supplies	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
<b>Sub-total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	
<b>C.2</b>	<b>VARIABLE INDIRECT EXPENSES Sub-total:</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	
<b>C.</b>	<b>TOTAL INDIRECT EXPENSES (C.1 + C.2)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	<b>44 – 48%</b>
<b>D.</b>	<b>TOTAL EXPENSES (B+C)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	
<b>E.</b>	<b>PROFIT OR (LOSS) FROM OPERATIONS (A-D)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	

## Section Four – Miscellaneous Revenue and Expense

In Section Four, each of the two components, Miscellaneous Revenue and Expense, will be comprised of line items that relate to the daily operations of the firm. Some of them are project-related while others are not.

Miscellaneous Revenue might include any 'Interest Earned' on funds placed in financial instruments, investments or other such accounts. This component would also include any 'Gain on Assets', as established by the firm's accounting people. On occasion, this could also include amounts collected and not refunded for unreturned and/or damaged, distributed project bid documents. There might also be other, small incidental revenue items that are not specifically included in any of the usual P-L Revenue line items.

Miscellaneous Expense might include the write-off as 'Bad Debt' any invoiced project amount that is likely to be unpaid. This component would also include any 'Loss on Assets', as established by the firm's accounting people. There might also be other, small incidental expenses that are not specifically included in any of the usual P-L Indirect Expense line items.

**Table 4: Annual Budget – Miscellaneous Revenue / Expense Component**

Account No.	MISC. REVENUE / EXPENSE	January	February	March	April	May	June	July	August	September	October	November	December	Totals	Percentage
<b>8100</b>	<b>Misc. Revenue</b>														
	Interest earned	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
	Gain on Assets	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
	Retained Bid deposits	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0.	
	<b>subtotal</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	
<b>8500</b>	<b>Misc. Expenses</b>														
	Bad Debt (Write-Off) Allowance	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	
	Loss on Assets	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	
	Misc. (Expenses)	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	-\$0	
	<b>subtotal</b>	<b>-\$0</b>	<b>\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>	<b>-\$0</b>
<b>F.</b>	<b>TOTAL MISC. REVENUE (+)/ EXPENSE (-)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	<b>4 – 6%</b>
<b>G.</b>	<b>NET PROFIT/ (LOSS) BEFORE DISTRIBUTIONS &amp; TAXES (E + or- F)</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0.</b>	<b>18 - 20%</b>

Table 5 illustrates a Collapsed Version of the *completed, expanded full Annual Budget that merges the fixed and variable expenses of the major account numbers.* that can be used as a summary document and can be transferred to the P-L to allow for budget tracking. *This collapsed version will then be the basis for developing the Final Annual Budget (Table 6).*

**Table 5: Annual Budget - Collapsed Version**

		<b>Budget Totals</b>	<b>Percentage</b>
<b>REVENUE</b>			
4100	Revenue		
4110	Fees Billed	\$0	
4150	Reimbursable Billed	\$0	
4170	Outside Consultants	-\$0	
4190	Project Related Expenses	-\$0	
<b>A. NET OPERATING REVENUE</b>		<b>\$0</b>	<b>100%</b>
<b>DIRECT LABOR EXPENSE</b>			
5100	Direct Labor (Salary)		
5110	Principal(s)	\$0	
5120	Professional/Technical	\$0	
5130	Administrative Staff	\$0	
5140	Contract Labor	\$0	
<b>B.</b>	<b>DIRECT LABOR (SALARY) Sub-Total:</b>	<b>\$0</b>	<b>28-32%</b>
<b>INDIRECT EXPENSES</b>			
<b>6100</b>	<b>Indirect Labor</b>		
6110	Admin. Labor (Salary) - Principal(s)	\$0	
6120	Admin. Labor (Salary) - Prof./Tech. Staff	\$0	
6130	Admin. Labor (Salary) - Admin. Staff	\$0	
6140	Admin Labor (Salary) - Temporary Help	\$0	
	<b>Indirect Labor Sub-Total:</b>	<b>\$0</b>	
<b>6200</b>	<b>Payroll Benefits &amp; Non- Discretionary Benefits (Fixed)</b>	<b>\$0</b>	
<b>6300</b>	<b>Discretionary Benefits &amp; Professional Development (Fixed &amp; Variable)</b>	<b>\$0</b>	
<b>6400</b>	<b>Office Lease &amp; Facility Expense (Fixed &amp; Variable)</b>	<b>\$0</b>	
<b>6500</b>	<b>General Office Expense (Fixed &amp; Variable)</b>	<b>\$0</b>	
<b>6600</b>	<b>Business Insurance (Fixed)</b>	<b>\$0</b>	
<b>6700</b>	<b>Auto Expense (Fixed &amp; Variable)</b>	<b>\$0</b>	
<b>6800</b>	<b>Bank Charges (Fixed &amp; Variable)</b>	<b>\$0</b>	









## Conclusion: Annual Budgets

Once all of the budgeted line items for the coming year have been identified and the expanded format completed it should be reviewed by the appropriate firm leaders and approved. The collapsed version can then be developed, as shown above in Table 5, which will then facilitate creating the final format of the *approved* Annual Budget.

It is important to note that the Annual Budget, once it has been approved for the coming year, should never be altered in any way. This would destroy the integrity of the Budget and eliminate the comparison benefit mentioned earlier.

However, ~~recognizing that~~ during the course of the year, certain unforeseen situations could develop that would alter some of the budgeted line items. If that were to occur, a separate, new document will need to be developed to reflect these changes. This document can be created by copying the approved budget, making the new, forecasted changes and then saving it with a different title.

This new document could be referred to as the 'Forecast Plan'. The Forecast Plan and the Annual Budget could then be compared each month to see the variances of both to the YTD Actuals.

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## Profit Planning

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Profit planning for every architecture firm is essential in providing a forecast of a firm's revenue-generating capability and the net profit it can anticipate earning from that revenue.

## Introduction to Profit Planning

Developing a Profit Plan is a firm's best approach to understanding what is financially possible for the coming year. Because the Profit Plan is a form of budgeting, it shares many of the same considerations as the Annual Budget. The Profit Plan, like the Annual Budget, needs to be developed in advance of the coming year. The current year's activity for revenues and expenses are important to consider in developing the projected new revenue and expense amounts. Also taken into account are any known future events, market conditions or other situations that might impact these amounts. In addition, other important factors to consider

include the firm's Backlog and the anticipated award of any new projects and fees for the coming year.

Backlog, defined as current project revenue not yet earned or invoiced, will impact the firm's projected Revenue. For example, imagine that a firm's Profit Plan for the coming year indicates the potential for generating Net Operating Revenue of \$1.1 million, based on a target Net Profit of 20%. If the firm's Backlog is \$350,000.00 total, the firm will need to assess if it has the capability to secure the additional \$750,000 in Net Operating Revenue in order to meet its Revenue and Net Profit projections.

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**For definitions of terms used in this article see 'Key Accounting Terminology' in Financial Management Overview (7.1)**

Once established, the projected Revenue and Expenses (Direct and Indirect) will also be used in the development of the Annual Budget.

## **Profit Plan**

The Profit Plan, when fully-developed, provides critical data essential for many decisions related to the firm's operations and projects.

Because the Profit Plan is a projection of what might be, the process of developing this data will entail a certain amount of 'educated' guesswork. Nevertheless, there are a number of component parts of the Profit Plan that can be developed based on known factors. Among these are the annual salary adjustments often given to every employee of the firm. In addition, adjusted utilization rates can be established for each employee, using the current year's performance as a guideline and taking into consideration any anticipated changes in an employee's duties and responsibilities for the coming year.

The projected Direct and Indirect Expenses will allow for the calculation of the Overhead Rate and the Break-Even Multiplier. With these metrics an Hourly Billing Rate for every employee can be calculated. These metrics in turn would be used to develop new project fee budgets, their estimated fee billings and potential profitability.

## **Profit Plan Format, Components & Applications**

The Profit Plan presented below is formatted in three primary sections, each one with its own components.

Top Section: ‘Revenue Projection’ identifies the Utilization Rate and the Total Labor and its two components: Direct & Indirect Labor. Finally the ‘Projected Billing’ for each employee can be calculated.

The Middle Section: ‘Projected P-L Summary’ calculates the projected Net Operating Revenue and Net Profit Dollars & Percent.

The Bottom Section: ‘Alternate Method to check Net Operating Revenue and Profit Goal.’ This section also includes ‘Calculating Multipliers’ & the ‘Development of Hourly Billing Rates’ for every employee. The reference to Top, Middle and Bottom is from the arrangement on a spreadsheet, where results from one section can be linked to cells in other sections. For ease of understanding and readability, the three sections are shown separately.

## Profit Plan ‘Top Section’

In the Top Section, the Projected Billing for each employee is determined by factoring each employee’s anticipated Utilization Rate and calculated Hourly Billing Rate. Arriving at a realistic utilization rate for each employee will require defining their roles, responsibilities and duties for the coming year and relevant historical data related to their respective, past performances. Generally, the less experienced staff will have the highest utilization rates, while the opposite is true for the more experienced staff and principals. Once defined, the Utilization Rate will establish each employee’s Direct Labor and Indirect Labor from which the Total Direct and Indirect Labor costs can be calculated. Using Total Direct and the Total Labor costs, the firm’s Utilization Rate can also be calculated:

$$\text{Total Direct Labor } (\$262,754) \div \text{Total Labor } (\$407,845) = 64.42\%$$

The Projected Billing for each employee is achieved only after the Hourly Billing rates are calculated in the Bottom Section. Then, using the respective Hourly Billing Rate and multiplying it by the respective total number of Direct Labor Hours (2080 hours x Utilization Rate) the Projected Billing amounts can be determined.

Example (from the Profit Plan) using the data for employee ‘T. Rex’:

$$\text{Hourly Billing Rate } (\$85.00) \times 1,726.4 \text{ (2080 hours } \times 83\%) = \$146,744.$$

**Table 1: Top Section Profit Plan**

REVENUE PROJECTION							
Employee	Hourly Rate	Util. Rate	Total Labor	Direct Labor	Indirect Labor	Billing Rate	Projected Billing
<b>Principal</b>							
D. Dowright	\$45.67	35%	\$95,000	\$33,250	\$61,750	\$140	\$101,920

S. Taypositive	\$45.67	65%	\$95,000	\$61,750	\$33,250	\$140	\$189,280
<b>Sub-Total:</b>			<b>\$190,000</b>	<b>\$95,000</b>	<b>\$95,000</b>		<b>\$291,200</b>
<b>Prof. -Tech. Staff</b>							
N. Desmond	\$32.75	75%	\$68,120	\$51,090	\$17,030	\$105	\$163,800
T. Rex	\$24.38	83%	\$50,710	\$42,089	\$8,621	\$85	\$146,744
E. Zeduzit	\$18.18	89%	\$37,815	\$33,655	\$4,160	\$70	\$129,584
<b>Sub-Total:</b>			<b>\$156,645</b>	<b>\$126,834</b>	<b>\$29,810</b>		<b>\$440,128</b>
<b>Admin. Staff</b>							
M. Adonna	\$15.00	35%	\$31,200	\$10,920	\$20,280	\$50	\$ 36,400
<b>Sub-Total;:</b>			<b>\$31,200</b>	<b>\$10,920</b>	<b>\$20,280</b>		<b>\$ 36,400</b>
<b>Contract Labor</b>							
Outsource Tech.	\$40.00	100%	\$30,000	\$30,000	\$0	\$75	\$ 56,250
<b>Sub-Total:</b>			<b>\$30,000</b>	<b>\$30,000</b>	<b>\$0</b>		<b>\$ 56,250</b>
<b>Totals:</b>			<b>\$407,845</b>	<b>\$262,754</b>	<b>\$145,090</b>		<b>\$823,978</b>

## Profit Plan 'Middle Section'

The Middle Section components can then be developed using the data in the Top Section. Perhaps the most difficult items to develop in this section are projections for the Outside Consultant's Fees to be billed, as a percentage of Total Fees Billed. Some of the Indirect Expenses (Marketing, Repair & Maintenance, Legal, Accounting, Management & Other Business Consultant Fees) will also have to be estimated. Refer to Sidebar on Indirect Operating and General & Administrative Expenses at the end of this article.

**Table 2: Middle Section Profit Plan**

Projected Revenue (from Top Section)	Architect		Consultants		Total
Fees Billed (Incl. Consultants + Mark-Up)	\$823,978	+	\$360,760	=	<b>\$1,184,738</b>
Reimbursable Expenses (Incl. Mark-Up)	\$161,272	+	\$ 16,127 (Mark-Up)	=	<b>\$ 177,399</b>
Outside Consultants (Not Incl. Mark-Up)	(\$360,760)	-	(\$ 32,796)	=	<b>(\$ 327,964)</b>
Project Related Expenses (Reimb.+ Non-Reimb.)	\$161,272 [Reimbursable]	+	\$ 40,245 [Direct (N-R)]	=	<b>(\$ 201,517)</b>
Net Operating Revenue (NOR)					<b>\$ 832,656</b>
Projected Direct Labor Expense					<b>(\$ 262,754)</b>
<i>Total Direct Labor (Salary) Expenses: Approx. 28-</i>					

<i>32% x Net Operating Revenue</i>					
<u>Projected Indirect Labor &amp; Expenses</u> <i>Total Indirect Expenses: Approx. 48-52% x Net Operating Revenue</i>					<b>(\$ 403,838)</b>
<u>Total Misc. Revenue/Expenses</u> (est. allowance)					<b>\$ 8,112</b>
<u>Net Profit Before Distribution &amp; Tax</u> <i>Approx. 20% x Net Operating Revenue</i>					<b>\$ 174,176</b>

A reasonable approach for beginning the process of developing some of these projections is to use an average of expenditures over the last three years and factoring up or down to suit based on anticipated market conditions.

Industry guidelines to consider:

- Outside Consultant Fees in the range of 26% to 35% of the Total Fees Billed.
- Marketing Expenses in the range of 3% to 5% of Net Operating Revenue.

With the figures shown in the Profit Plan, the Outside Consultant Fees were calculated to be approximately 27% of the Total Fees Billed \$1,184,738, shown as -\$327,964. If the mark-up were not considered,  $\$1,184,738 - \$32,796 = \$1,151,942$ , it would be approximately 28%. The amount is shown as a negative number (as a debit to Revenue) because these fees are to be paid to the Consultants and are not included in the Net Operating Revenue.

Project-Related Expenses is a combination of the total value of five possible sub-categories of expenses:

1. Reimbursable expenses for Architect, not including mark-up.
2. Reimbursable expenses for Outside Consultants, not including mark-up.
3. Project expenses for the architect included in all Lump Sum Fees billed by Architect.
4. Non-reimbursable project expenses for Architect, per contract.

5. Reimbursable project expenses for Architect that exceed any contract stipulated maximum.

The total amount shown is also a negative number (as a debit to Revenue), as the majority of these expenses will be paid to a Consultant and/or Vendor.

With all of the components of Net Operating Revenue identified, the projected Net Profit can be calculated.

*NOR – Total Direct Labor – Total Indirect Expenses + (or -) Total Miscellaneous Revenue or Expense = Net Profit.*

$$\$832,656 - \$262,754 - \$403,838 + \$8,112 = \$174,176$$

Once Net Operating Revenue (NOR) and Total Direct Labor (TDL) are calculated, two other critically important Key Financial Performance Indicators can then be calculated:

1. Net Multiplier (measures the return on every dollar of Direct Labor)

$$NOR (\$832,656) \div TDL (\$262,754) = Net Multiplier (3.17)$$

2. Percentage of TDL to NOR (measures the balance between workload and number of staff (target range: 28% - 32%))

$$TDL (\$262,754) \div NOR (\$832,656) = 31.6\%$$

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**For more information about these ratios see Backgrounder, Key Financial Performance Indicators accompanying Financial Management Overview (7.1)**

## **Profit Plan ‘Bottom Section’**

The Bottom Section provides an Alternate Method of calculating a targeted set of goals for the NOR and Net Profit to compare with the above Projected NOR & Net Profit Goals. These alternate calculations for the Targeted Break-Even and Net Multipliers are based on a different set of parameters, except for the three projected Labor values (Total, Direct & Indirect) from Table 1.

The value shown below for Total Indirect Expenses (\$394,130) is based on an Overhead Rate estimated at 1.5 x TDL, resulting in the Targeted Break-Even Multiplier of 2.5 x TDL Adding the Targeted Net Profit results in the Targeted Net Multiplier.

Total Direct Labor (TDL) Multiple:

$$\text{TDL} \div \text{TDL}: \$262,754 \div \$262,754 = 1.00$$

Targeted Indirect Expense Multiple (Overhead Rate):

$$\text{Total Indirect Expense} \div \text{TDL}: \$394,130 \div \$262,754 = \underline{1.50}$$

Targeted Break-Even Multiplier (B-E Multiplier):  $1.50 + 1.00 = 2.50$

Targeted Net Profit (20%) Multiplier: B-E Multiplier  $\div$  .80\* – B-E Multiplier

$$2.50 \div .80 - 2.50 = \underline{0.63}$$

Targeted-Net Multiplier:  $2.50 + 0.63 = 3.13$

\* = To calculate the Targeted Net Profit Multiplier, divide using the complement (.80) of the Targeted Net Profit percentage (20%).

The Direct Labor (Salary) Expense dollars shown in Table 3 are the same dollars as in the Top Section from Table 1. The \$262,754 is arrived at by multiplying the Total Labor (\$407,845) by the average Utilization Rate (0.6442), resulting in the Total Direct (Salary) expense. Similarly the Indirect Labor (Salary) Expense is the ‘Top Section’ Total Labor from Table 1 minus the Total Direct Labor (Salary) Expense. The ‘Office Expenses’ value is the remaining amount in the calculated \$394,130 ‘Indirect Expenses’ line item.

**Table 3: Profit Plan ‘Bottom Section’**

**ALTERNATE METHOD (to check Projected NOR & Profit Goal)**

<b>Direct Labor (Salary) Expense:</b>	\$407,845 x 0.6442		\$262,754
<b>Indirect Expenses:</b>			
Indirect Labor (Salary):	\$407,845 x 0.3558	\$145,090	
Payroll Taxes & Benefits:	Est. at 25% x Total Salary	\$101,961	
Office Expenses:		\$147,079	
<b>Total Indirect Expenses:</b>	Est. at 1.5 x Direct Labor		<b>\$394,130</b>
Misc. Revenue/ Expense:	From table 2	\$8,112	
<b>Total Indirect Expenses:</b>			<b>\$656,884</b>
Profit Goal @ 20%:	Tot. Exp. $\div$ 80% - Tot. Exp.		\$164,221
<b>Net Operating Revenue Goal:</b>			<b>\$821,105</b>
<b>Calculating Multipliers</b>			
To Pay For Direct Labor (Salary) Expense:			1.00
To Pay For Indirect Expenses: (Indirect Expense $\div$ Total Direct Labor)			1.50
<b>Equals Break-Even Multiplier (B-E Multiplier):</b>			<b>2.50</b>
To include 20% Profit: (B-E Mult. $\div$ .80 - B.E Multiplier)			0.63
<b>Equals Planned Net Multiplier (with 20% Profit):</b>			<b>3.13</b>

Using the Targeted Net Multiplier, each employee's Hourly Billing Rate can then be calculated (Hourly Salary x 3.13).

Example: for an hourly salary of \$20.00:

$$\$20.00 \times 3.13 = \text{Hourly Billing Rate of } \$62.60, \text{ incl. profit of } \$12.50 (\$62.50 \times .20)$$

To check, using an alternate approach:

$$\text{Hourly Salary } (\$20.00) \times \text{B-E Mult. } (2.50) \div .80^* = \$62.50 \text{ (Hourly Billing Rate)}$$

\* = Divide, using the complement of the Targeted Net Profit percentage (.80) to calculate the Hourly Billing Rate.

If you multiplied by .20, that would be a 'mark-up' of only \$10.00 and reduce the profit percentage, as shown in the following calculations:

$$\text{Hourly Salary } (\$20.00) \times \text{B-E Mult. } (2.50) \times .20 = \$10.00 \text{ (\$2.50 or 20\% less profit on the targeted 20\% profit)}$$

**Table 4: Determine Minimum Billing Rates**

<b>Use Planned Net Multiplier x Hourly Salaries To Set Min. Hourly Billing Rates</b>						
	Hourly salary		Planned Net Multiplier	Billing Rate	To increase Profit	Adjusted Billing Rates
D. Dowright	\$45.67	x	3.13	= \$142.95	Round down to:	\$140
S. Taypositive	\$45.67	x	3.13	= \$142.95	Round down to:	\$140
N. Desmond	\$32.75	x	3.13	= \$102.51	Round up to:	\$105
T. Rex	\$24.38	x	3.13	= \$76.31	Round up to:	\$ 85
E. Zeduzit	\$18.18	x	3.13	= \$56.90	Round up to:	\$ 70
M. Adonna	\$15.00	x	3.13	= \$46.95	Round up to:	\$ 50

Looking at the calculated Hourly Billing Rates, there is a potential for developing an incremental increase in the profit percentage for each non-principal employee's Hourly Billing Rate. In general, the non-principal employees spend a greater percentage of the total charged project hours than do principals. It is therefore possible to take each of these employee Hourly Billing Rates and raise them to a higher amount and still maintain a competitive set of billing rates, all with more than a 20% profit.

Example (from the Profit Plan) using the data for employee 'T. Rex':

$$\text{Hourly Salary } (\$24.38) \times \text{Net Mult. } (3.13) = \text{Hourly Billing Rate } (\$76.31)$$

If the \$76.31 were 'rounded-up' to an Hourly Billing Rate of \$85.00, the profit would be increased by \$8.69 to \$24.05 for a profit percentage of 28.29%.



Conversely, if the principal's rates were 'rounded-down', the firm's Net Profit percentage could be increased considerably without any additional cost to the firm or loss of competitive edge.

## **Conclusion: Profit Panning**

The responsibility for earning a profit belongs to every employee of a firm. The most advantageous method for ensuring this will happen is to develop some form of Profit Planning at, or before, the start of each new calendar year. The most effective tool for this type of planning is the Profit Plan. The Profit Plan develops a projection for each of the four primary components that affect profitability – Revenue, Direct Labor, Indirect Labor and Indirect Expenses.

The development of each these primary components requires a review of a firm's past performance for the previous three years and an understanding of developing trends in the market for the coming year.

Projected Revenue is best developed using current and/or projected salaries, targeted utilization rates and the hourly billing rates for each employee and principal.

Projected Direct and Indirect Labor are calculated using the same current and/or projected salaries and the targeted utilization rates for each employee and principal.

The projected Indirect Expenses are the most challenging of the four components to develop because it contains so many different fixed and variable sub-categories. In general, if Direct Labor is 28% -32% of the NOR and the targeted Total Net Profit is approximately 20% of NOR, then the Total Indirect Expenses (including Indirect Labor) would be approximately 48% - 52%. This is a reasonable basis for establishing a projected value for this component. This projection can then be compared with the value calculated for a targeted Overhead Rate of no more than 1.5 times Total Direct Labor.

With each of these four components projected a targeted Net Profit can be established. This targeted profit value is then applied to the fee budget for every new project started in the coming year and communicated to every employee as a focus for their project activities.

### **For More Information**

*Financial Management for Architects, Robert F. Mattox, FAIA (retired), published by the American Institute of Architects, 1980*

*Standardized Accounting for Architects, Robert F. Mattox, FAIA, (retired), published by the American Institute of Architects, 1982*

*Financial Management for Design Professionals: The Path to Profitability, Steve L. Wintner, AIA Emeritus and Michael Tardif, Associate AIA, published by Kaplan AEC Education, 2006*