AIA Best Practices:
Budgeting key performance indicators

Part 2 of Developing company financial budgets

Contributed by Michael A. Webber, A/E/ Finance

Summary

Part two of *Developing company financial budgets* covers industry-standard key performance indicators (KPIs) for tracking a company's performance. These KPI metrics will help you understand your organization's financial health and compare it to industry benchmarks.

Basic metrics: Utilization rate, net and payroll multipliers, and overhead rate

Key performance indicators (KPIs) are the metrics used to evaluate the success of an organization. Within the architecture profession, four of the most widely used KPIs are a firm's utilization rate, its net multiplier, its overall payroll multiplier, and its overhead rate. These metrics are basic to developing financial and operating budgets, and for allocating a firm's largest expense, labor. Figure 3 below (repeated for reference from Part 1: Budgeting basics) gives us a sample income statement from which we can derive the key performance indicators shown in Figure 4 below.

Figure 3: Sample income statement

Total Revenue	**$131,600**
Direct Expenses	$31,600
Net Revenue	**$100,000**
Direct Labor	$33,333
Gross profit	**$66,667**
Indirect Labor	$21,333
Payroll-Related Expenses	$10,113
Other Indirect Expenses	$25,220
Operating Profit (Pre-bonus, Pre-tax)	**$10,000**

Figure 4: Sample key performance indicators (KPIs)

Total Labor	$54,666
Total Labor + Payroll-Related Expenses	$64,780
Other Overhead	$25,220
Operating Profit Rate	10.0%
Net Multiplier	3.00
Utilization Rate	61.0%
Payroll Multiplier	1.83
OH Rate without Bonuses	170.0%

Let's define some important terms:

Utilization rate: Firms make their money when their staff works on billable client projects. The utilization rate (sometimes called *chargeability*) is the percentage of time employees work on billable project work, and is calculated with this equation:

Utilization Rate = Direct Labor ⁄ Total Labor

Direct labor: A firm's own people provide the services that generate net revenue, so direct labor costs are the actual wages paid to people for all hours spent working on client projects. Each direct labor hour is recorded to a specific project at each person's pay rate.

For example, if a person is paid $1,000 for a 40-hour workweek, that person's standard cost rate is $25.00 per hour. If that person works 5½ hours on a specific project, that project incurs a direct labor charge of $137.50. Regardless of whether these hours are billed to a client, the project and the firm have incurred these direct labor costs.

Total labor and indirect labor: Total labor is direct labor plus indirect labor. Indirect (non-project-related) labor is time spent by staff for work that is not billable (such marketing, training, continuing education, and pro bono projects).

Architecture firms tend to focus on maximizing project time (i.e., direct labor) and utilization rates. While this is generally a good business goal, it can sometimes be taken too far. Significant amounts of time should be budgeted for necessary and appropriate non-project-related activities (i.e., indirect labor), some of which may not be obvious. First, certain employee benefits, such as vacation, holiday, sick, and personal time, are necessary for a firm to be competitive in the labor market. And a considerable amount of time is spent by support staff who don't work directly on projects, such as accounting, administrative, human resources, and marketing staff. In addition, professional staff need to attend conferences, seminars, webinars, and training courses for individual or firmwide professional development. And there is the dreaded "I-don't-have-a-project-to-work-on" time that all staff and firms seek to avoid. Finally, management staff must spend time

on administrative and organizational tasks and responsibilities related to managing a firm. With all these necessary or unavoidable indirect labor costs, utilization rates should be optimized but can never be maximized (i.e., achieve 100%).

Utilization rates can be calculated for each department, division, office—wherever someone is responsible for a group of people—as well as for the entire firm. A general industry benchmark range for utilization rates is from 60% to 65% of total labor dollars.

Utilization rates can be monitored daily or weekly, but the net multiplier, and therefore the payroll multiplier, is typically monitored only once each month or billing cycle.

Net revenue: Since total revenue includes direct expenses (see Figure 3 above), from which firms typically don't generate profit (the biggest component of direct expenses is typically consultant fees), a more useful revenue number is the net revenue (aka. *net service revenue*, or *NSR*). This is total revenue minus direct expenses.

Net multiplier: The net multiplier is the KPI that tells us how many net revenue dollars a firm receives for every dollar paid for work on client projects. It is calculated from this equation:

Net Multiplier = Net Revenue / Direct Labor

The net multiplier can be calculated and monitored for each project phase and for every billing period. A net multiplier also can be calculated and monitored for each project manager, department, division, or other operational unit as well as the entire firm by adding together (also called *rolling up*) the net revenues and direct labor for every billing period for all projects under the purview of each project manager or operational unit. The industry benchmark for net multiplier has remained around 3.0 for decades, with many firms achieving higher multipliers on some projects (and lower multipliers on others).

Payroll multiplier: The KPI that tells us how many net revenue dollars a firm receives in return for all payroll dollars paid is the payroll multiplier (aka *productivity factor*). It is calculated with this equation:

Payroll Multiplier = Net Revenue / Total Labor

A little arithmetic shows us that the equation above is the same as this equation:

Payroll Multiplier = Utilization Rate x Net Multiplier

The payroll multiplier—the result of multiplying the utilization rate by the net multiplier—is the most significant of these operational metrics. However, evaluating any change in it requires analyzing each of its two components to determine the cause—positive, negative, or no net change. Also, as with the net multiplier, payroll multipliers can be calculated and monitored every billing period for each operational unit. Using the industry benchmarks for utilization rate (60% to 65%) and net multiplier (3.0), the industry benchmark for payroll multiplier is 1.80 to 1.95. According to PSMJ research, the payroll multiplier has the highest overall correlation with firm profits because it encompasses both utilization rate and net multiplier.

Overhead rate: The last KPI we need to know is the *overhead (OH) rate*, which tells us how many dollars of overhead indirect expenses the firm spends for every dollar spent doing billable work. It is calculated by this equation:

Overhead Rate = Total Indirect Expenses / Direct Labor

Overhead includes indirect labor, other payroll-related expenses (such as payroll taxes, company-paid health insurance, and other benefits), and other indirect expenses (such as rent and marketing, corporate, and other staff-related expenses). It will also include bonuses shared with staff or shareholders if the firm is profitable. All these costs, calculated as a percentage of direct labor, need to be covered by fees in addition to the direct labor. Overhead rates tend to range around 160% to 170% (or expressed as decimals, 1.60 to 1.70) before bonuses are included. This tells us that for each $1.00 of direct labor, another $1.60 to $1.70 for overhead must be accounted for, giving us a *breakeven rate* for billing labor of $2.60 to $2.70. This is consistent with the industry's net multiplier of 3.0 and operating profit rate target of 10%.

In Part 3: Creating an annual budget for a small firm, we will walk through the basics of setting up a budget for your company.

Developing company financial budgets: the five-part series

This Best Practice is the second in a series of five articles that address budget development for architectural firms. Each article builds on, but tries to not repeat, information provided in previous article.

- Part 1: Budgeting basics
- Part 2: Budgeting key performance indicators
- Part 3: Creating an annual budget for a small firm
- Part 4: Creating an annual budget for a larger firm
- Part 5: Budgeting indirect expenses

About the contributor

Michael A. Webber started A/E Finance after years as a CFO. He works with A/E principals and boards on strategic planning, turnarounds, interim assignments, and operational and financial analysis and systems. He has been chair of AIA Chicago's Practice Management Committee, an AIA/ACEC peer reviewer, and a member of ACEC's Management Practices Committee. He can be reached at mawebber@aefinance.net.

About AIA Best Practices

AIA Best Practices is a collection of relevant, experience-based knowledge and expert advice on firm management, project delivery, contracts and more, aligned with the *Architect's Handbook of Professional Practice, 15th edition*. See the full AIA Best Practices collection at aia.org/aia-best-practices.

This article corresponds to:

Architect's Handbook of Professional Practice, 15th edition Unit 1 - The Profession
Chapter 07 – Financial Management
Section 04 – Developing Annual Budgets and Profit Planning