

Financial Management Overview

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Financial Management involves the on-going monitoring of a firm's financial resources to allow firm principal(s) to exercise sound business judgment in response to developing trends.

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Introduction

The basic knowledge needed for the financial management of a professional design firm includes a clear understanding of the component parts of each of the two primary financial reports – the Profit-Loss Statement and the Balance Sheet - and how to interpret these reports. Knowing how to calculate the seven key financial performance indicators of the Profit-Loss Statement and the four key financial performance indicators of the Balance Sheet will facilitate a firm leader's response to developing trends, whether positive or negative. An in-depth knowledge of accounting is not required to develop the skills to learn any of the above.

Two essential components of a financial management system are the Annual Budget and the Profit Plan. These two components are closely interrelated and decisions about elements of one component will

likely have an impact on the other component. For example, overhead projections made for the Profit Plan will play a key role in the development of the Annual Budget. Therefore, it is important that these two components be developed concurrently.

Since these two components are developed for each new coming year, it would be advantageous for their development to begin before the coming year commences. Even if the final results of the current year are not yet available, it is acceptable, as a place to begin, to use the data from the latest of a firm's 4th quarter's accrual-basis financial reports and their calculated key indicators. Once the final, previous year-end data is available, adjustments for the coming year can be made to the Budget and Profit Plan and its key indicators. Getting an early start will enable firm leaders to respond more effectively to new opportunities using the most current data. These two components, when fully-developed, provide a basis for comparing the anticipated financial performance of a firm with its actual financial performance in the periodic monitoring of its accrual-basis Profit-Loss Statement.

[\[Eds: margin pointer to Developing Annual Budgets \(Blair & Wilton\) and Profit Planning \(Wintner\)\]](#)

Distinctions between Accounting Reports & Financial Management Reports

A comprehensive financial management system is based on a firm's accounting system, but there are distinctions between their respective reports.

Accounting reports and their generated data is the responsibility and realm of a firm's accounting personnel and its outside tax consultant. Financial management reports are the responsibility and realm of firm leaders, even though others might develop and compile these reports. While the basis (timesheets, incoming payments and outgoing invoices) of the financial data is essentially the same for the accounting and financial reports, each report type is formatted differently to suit their respective purposes and use by each party.

Accounting reports focus primarily on cash-flow management, accounts payable and defining the firm's quarterly and annual tax liability, which are identified in the **Cash-Basis** reports. A firm leader's focus will be on reviewing and monitoring the key indicators from the financial data provided in the **Accrual-Basis** reports. Both reports facilitate making sound business decisions to enhance a firm's

effectiveness, efficiency, profitability and the achievement of its professional goals.

An understanding of the following basic accounting terms is also necessary for skillful financial management.

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GLOSSARY of KEY ACCOUNTING TERMINOLOGY

- **Accrual-Basis Accounting (Modified):** Revenue earned and billed from fees and expenses, including outside project consultant fees & expenses, plus all other direct and indirect expenses incurred. This means revenue is based only on invoiced fee and expense amounts sent and/or received. Most firms use this modified accrual-basis for their Profit-Loss Statement and Balance Sheet development.
- **Cash-Basis Accounting:** Income received and all salaries and expenses paid (a checkbook approach). This is the basis most commonly used for filing and paying quarterly and year-end taxes.
- **Net Operating Revenue (aka "Net Revenue"):** Represents the net dollars remaining after deducting the invoiced consultant's fees and expenses, and all reimbursable and non-reimbursable project related expenses.
- **Direct Labor:** Same as Direct Salary. Represents time charged to projects, whether invoiced or not (by everyone, including principals).
- **Indirect Labor:** Same as Indirect Salary. Time charged to non-project related activities (by everyone, including principals). Note: Indirect Labor is included in the calculation of Total Indirect Expenses.
- **Reimbursable Expenses:** Project-related expenses that are invoiced to the client in addition to fees. These would also include a mark-up percentage on those expenses. The mark-up dollars are a form of revenue and are included in Net Operating Revenue.
- **Direct Expense:** Project-related expenses for a firm and its outside consultants that are not reimbursable, plus project-related expenses included in all Lump Sum Fee contracts.
- **Indirect Expense:** General and administrative non-project related operating expenses (Total Indirect Expenses includes Indirect Labor).
- **Overhead Rate:** The ratio of Total Indirect Expenses to Total Direct Labor.
- **Break-Even Rate:** The Overhead Rate plus the unit cost of 1.00 for an hour of Salary (example: Overhead Rate of 1.30 + 1.00 = Break-

Even Rate of 2.30). This means for every \$1.00 of Salary the firm must recapture \$2.30 just to break-even.

- **Utilization Rate:** Direct Labor expressed as a percentage of Total Labor. (for individual rates, use hours; for a firm rate, use dollars.)
- **Hourly Billing Rate:** The dollar amount charged to a client relative to one-hour of Direct Labor.
- **Net Multiplier:** The Net Multiplier is the ratio of Net Operating Revenue (NOR) to Total Direct Labor. The measure of return on every dollar of Direct Labor.
- **Net Profit:** The dollars remaining after deducting all Direct and Indirect Labor and Indirect Expenses, before any Distributions are made or Tax is paid.
- **Current Earnings:** The Net dollar amount after all Distributions are made and all applicable taxes have been deducted.

Financial Planning

Applications of the Cash-Basis and Accrual-Basis Reports

Depending on the size of a firm, one or both types of reports may be used. The accounting process for most sole proprietors (those without any paid staff) would be on a checkbook-like basis (dollars received, dollars paid) and therefore would likely use only the Cash-Basis report. Almost all other size firms with employees would use both types of reports.

The Cash-Basis Profit-Loss Statement indicates only the income received and the amounts paid out for expenses to others within a specific accounting period. Because certain expenses, such as salaries and most vendor invoices are paid shortly after the obligation is incurred, and income from invoices may not be received for 30-120 calendar days, or more, after the work is actually done, there is no timing correlation between income received and expenses paid. The Cash-Basis Profit-Loss Statement establishes a firm's cash-flow management effectiveness and its tax liability, not its Net Profit.

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Non-payment of invoices in excess of 30 days is problematic and needs to be resolved as quickly as possible. Payment on invoiced

project amounts ideally should be received from the client within 30 days from the date of the invoice and certainly not later than **60** days.

Unlike the Cash-Basis Profit-Loss Statement, the Accrual-Basis Profit-Loss Statement does not consider the actual receipt or payment of any money. Rather, the accrual report reflects the invoices sent to clients for monthly Revenue earnings, based on hours worked and expenses incurred to complete that work, in a given accounting period. The Accrual Basis Profit-Loss Statement establishes the Net Profit for a firm and the calculation of its seven relevant key financial performance indicators.

These two reports do however have a connection. For example, consider the relationship between cash available on-hand and the distribution of any Net Profit. Ultimately, the availability of cash-on-hand will have a significant impact on the decisions made about the size and timing of Net Profit distributions.

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Since the Accrual-Basis Profit-Loss Statement defines Net Profit and the Cash-Basis Profit-Loss Statement (aka the 'Income Statement') defines available cash, both types of reports will need to be consulted before any decision about the distribution of Net Profit can be made. With this in mind, it is easy to understand the importance of maintaining a 'healthy' cash-on-hand balance throughout the year.

For the sake of this article and in general, the 'modified' accrual-basis is the industry accepted method employed for the Accrual-Basis Profit-Loss Statement. The modified version records only the Revenue from fees and expenses that have been invoiced to clients. It would also include the fee and expense amounts invoiced to the firm by Outside Project Consultants and other vendor and general expense amounts that were incurred in a specific accounting period. It does not include the value of **Earned Fees Unbilled ('Work-in-Progress')**.

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Cash-Basis and Accrual-Basis Report Differences

This example illustrates the differences between the Cash-Basis and the Accrual-Basis Reports.

The Cash-Basis accounting for this firm recorded a Net Cash Income of \$21,000 for the current month. However, much of this income comes

from the collection of months of previous invoices that were not paid until the current month. The Accrual-Basis accounting for this same firm indicates a Net Profit of \$18,000, on the current month's invoices of \$100,000.00.

Since Net Cash Income and Net Profit are generated by different monetary resources, it is not appropriate or realistic to compare the actual Income (\$ received) in the Cash-Basis Report to the earned 'Net Profit' (based on dollars invoiced) in the Accrual-Basis Report.

The Cash-Basis report indicates income received and payments made. For this reason, only the Cash-Basis Profit-Loss Report is to be used to determine the firm's quarterly and annual tax liability.

The Modified Accrual-Basis report provides an accurate snapshot of a given accounting period, generally one month and the year-to-date. It records only the invoiced amounts sent to clients for the firm. This report does not indicate any actual income received or payments made.

Current Month – Cash Basis

Income received for previous invoices (for fees and expenses):	\$70,000.00
Current Month Invoices (for fees and expenses):	<u>\$ 5,000.00</u>
Total Current Month Income:	\$75,000.00
Total Salaries Paid:	-\$45,000.00
Total Expenses Paid:	<u>-\$ 9,000.00</u>
Current Month Net Cash Income:	\$ 21,000.00

Current Month – Modified Accrual Basis

Net Operating Revenue earned (for invoices sent):	\$100,000.00
Direct Labor Expenses incurred:	\$ 32,000.00
Indirect Expenses incurred (Labor & Expenses):	<u>\$ 50,000.00</u>
Total Labor and Expenses Incurred:	\$ 82,000.00
Current Month Net Profit:	\$ 18,000.00

Introduction to the 'Mattox Format'

The use of conventional accounting formats, while perfectly acceptable, nevertheless do not allow for an easy calculation of the

seven key financial performance indicators for the Profit-Loss Statement. As an alternative to conventional accounting formats, there is a unique format that was developed by Robert F. Mattox, FAIA (retired).

While conventional accounting systems are capable of providing these same performance indicators, the results will be more laborious to calculate and will not necessarily provide as accurate a result for some of these key indicators. The reason is for this is that conventional accounting systems are setup with certain data shown in portions of the report that make it necessary to extrapolate and reorganize this data to allow for the calculation of these seven key financial performance indicators.

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An Introduction to the 'Mattox Format'

In the late 1970's, Robert F. Mattox, FAIA (retired) developed an alternative to conventional accounting formats, particularly designed for use by professional design firms. The AIA Press first published this format in 1978 and 1980 in the two manuals authored by Mr. Mattox titled, 'Standardized Accounting for Architects' and 'Financial Management for Architects.' Identified herein as the 'Mattox Format,' this system was developed to enable design professionals to quickly ascertain firm profitability and measure its performance with key financial indicators. While the Mattox Format differs somewhat from a conventional accounting format, it is entirely consistent with generally accepted accounting principles (GAAP).

The significant difference between the Mattox Format and a conventional accounting system is the structure of its Chart of Accounts and the format of the major components of the Profit-Loss Statement and the Balance Sheet, based on their respective Chart of Accounts.

For the Profit-Loss Statement, the Mattox Format is comprised of four major components: Revenue, Direct Labor, Indirect Expenses and Miscellaneous Revenue & Expenses. Together, these four components will provide a firm's true Overhead Rate, Net Profit and five other key financial performance indicators.

Unfortunately, the Maddox Format is not widely known or recognized by accounting professionals. Nevertheless, the method has proven to be beneficial to many professional design firms. The Mattox Format is

currently only available in one of the three integrated, software systems developed for professional design firms.

[\[Eds: margin pointer to backgrounder Key Financial Indicators \(Wintner\) \]](#)

Performance Goals

Every professional design firm would do well to establish specific goals for its financial performance for each coming year. In order to provide a realistic set of performance goals, these goals need to be reviewed and modified to suit the current status of the firm's finances and the current and anticipated condition of the market for the firm's services.

Because each firm is unique, these goals will vary from firm to firm. For many firms these goals are based on established Mission and Vision Statements.

Among the financial performance goals to consider are the following:

- Projected Net Billing and Revenue
- Project Consultant Fees (as a percentage of Total Billing)
- Project Related Expenses
- Staff Size and Salary Expense
- Overhead Expense and Break-Even Rates (as a percentage of Direct Labor)
- Net Profit (as a percentage of Net Operating Revenue).

Included in these goals will also be the development of a competitive Hourly Billing Rate for every member of the firm and their respective, targeted Utilization Rates for the coming year.

It is recommended that every firm establish these performance goals before the start of the coming year. Once established, these performance goals will provide firm members with an opportunity to be as efficient and effective as possible through regular monitoring of daily project activities and the accurate tracking of time spent each day on projects.

Projected Net Billing and Revenue

Financial planning begins with the projection of what the firm principal(s) believe to be a reasonable expectation of how much Net Billing (fees billed exclusive of expenses and consultants) and Revenue

the firm can create for the coming year. This would entail identifying current projects under contract that will carry over into the coming year and the balance of fees remaining to be billed on those projects in the coming year. This is commonly referred to as 'Backlog.' Most firms maintain an on-going Backlog Report to facilitate this process. Then, taking into consideration all outstanding project proposals and categorizing them as either a 'prospect' (better than a 50% chance of being awarded) or a 'suspect' (less than a 50% chance of being awarded) it is possible to assign a percentage of them being awarded to the firm and calculating their respective projected fee values. In addition, a firm's Marketing Plan will identify potential new prospects and suspects, based on the current and anticipated market conditions and the opportunities to submit future proposals for these yet to be identified new projects. With these resources identified, a realistic, conservative, Net Billing and Revenue Projection goal for the coming year can be established within the Profit Plan.

[\[Eds: margin pointer to backgrounder Profit Planning \(Wintner\) \]](#)

Project Consultant Fees (as a percentage of Total Billing)

A firm's Total Revenue generally also includes other fees to be billed in addition to their own. Most common among these are the fees for Project Consultants.

Refer to industry guidelines' for what would be an appropriate percentage of a firm's Total Billings allocated to the fees of their Project Consultants. It is also advisable for each new prospective project, prior to submitting a fee proposal, to send a comprehensive Request for Proposal (RFP) to each of the required Project Consultants to be retained. Then, adding the Project Consultant's proposed fees to the firm's calculated net fee, the total fee can be established and the actual percentage of the total fee allocated to the Project Consultants can be determined. This percentage would then be compared to what the industry guidelines suggest to be reasonable and fair.

This process will enhance a firm's ability to be more responsive to an existing or new client's request for a fee proposal for future work and result in the potential for increased profitability.

Project Related Expenses

Each project, based on the Fee Basis stipulated in the contract, will have expenses that can be invoiced and subsequently reimbursed or expenses that will be a part of the total fee, as in a Lump Sum fee basis and not individually reimbursed. In addition, even for those projects that have reimbursable expenses, there likely will be other expenses that will be non-reimbursable (e.g.: in-house reproduction expenses for coordination, local mileage, unauthorized overtime, etc.) Because these common, project related, non-reimbursable expenses reduce a project's profitability, they should be identified as a part of the fee-setting process and a unit cost established for each such expense. Doing so will result in establishing a more accurate Net Operating Revenue and Net Profit for the prospective project.

Staff Size and Salary Expense

One of the performance goals to consider is a strategic plan for the staff size of a firm. The impact of the market and its economic condition will almost always play a role in establishing the number of employees in a firm. The great majority of firms in the United States are considered to be 'small' firms. Small, in this reference, is defined as fewer than 10 people, including the principal(s).

Regardless of a firm's staff size, it is still important to plan for the annual cost of its employees and principals. Proportionally, annual salaries are the single largest expense for any firm. For most firms, approximately two-thirds of their total annual salaries will be project-related and be the primary source of a firm's generated revenue and income.

Of critical importance is the balance between staff size and the available project work. This balance is reflected in one of the seven P-L Statement indicators; the ratio of the Total Direct Labor expense to Net Operating Revenue (Net Multiplier). To best reflect this balance, the Total Direct Labor should be in the range of 28-32% of Net Operating Revenue. If the ratio is considerably lower than 28%, it is a possible indication that there are insufficient hours being charged to project-related assignments. ***This might be the result of a reduction in project workload caused by a client 'stop work' order or something impacting the entire industry like an economic slow-down, as recently experienced. Whatever the reason, there will be times when the project workload is insufficient to allow staff to charge their 'normal' number***

of hours (based on their respective, targeted, utilization rates) and this will reduce the percentage of direct hours to NOR.

If the ratio is considerably higher than 32%, there are several possible explanations:

1. Hours in excess of those budgeted or allocated are being charged to project-related activities. Potential negative impact is that a project's total fee is being used too quickly and profit is being consumed to cover these additional hours.
2. Large volume of overtime hours being charged to project-related activities. This would be added to the project fee if the Client authorized and was paying for these overtime hours at regular or premium billing rates. If not, since firms usually do not pay overtime for its salaried professional staff, these overtime hours, while still charged to the project, would not have any cost related to them. They are charged as hours with a zero-cost impact on the project budget or overhead burden. While these hours do not increase direct labor expense (in dollars), they should be recorded for an accurate measure of direct hours required for project completion. This is important for establishing reliable historical data on how many hours it actually takes to complete a certain project type.
3. A business decision was made to spend the hours to 'catch-up' with the project schedule. If no compensation is made for these hours, it is the same as the situation described in number 2 above - zero-cost. If compensation is being provided, it is similar to number 1 above - potential fee drain and profit loss.

For any and all of these above reasons, it is essential that the project hours charged are accurately and timely entered on each respective employee's daily timesheet.

[\[margin pointer: For related information see 'Recording Direct and Indirect Time Spent' in Financial Management Systems \(Wintner\) \]](#)

Overhead Rate & Break-Even Rate (as a percentage of Direct Labor)

The Overhead Rate and the Break-Even Rate are inextricably related.

The Overhead Rate is comprised of two components: Indirect Labor and general & administrative (G&A) expenses. Even though many of the G&A expenses are common to most firms, what these expenses specifically include will be a reflection of a firm's uniqueness in its operations and the types of discretionary benefits it offers its employees. Refer to the sample accrual Profit-Loss Statement and the most common G&A expenses.

The Break-Even Rate is equal to the Overhead Rate plus an assigned a unit cost of 1.0 for hourly salaries. A firm with an Overhead Rate of 1.30, would have a corresponding Break-Even Rate of 2.30 (1.30 + 1.0).

Once a firm's Overhead Rate has been established, the Break-Even Rate for every employee can also be calculated, based on their respective hourly salary rate.

Example: for an employee who is paid a salary equal to \$20.00 per hour (\$41,600.00 /2080 hours) in a firm with an Overhead Rate of 1.30, the Break-Even Rate for such an employee would be: $\$20.00 \times 2.30 = \46.00 per hour.

That means for the firm to break-even on this particular employee's hourly salary, and their respective portion of the firm's Overhead Cost, the Hourly Billing rate for their Direct Labor can be no less than \$46.00 per hour. To include Profit at a targeted percentage of 20 percent, divide the Break-Even rate by 80 percent (the complement of 20%). This will establish an Hourly Billing Rate of \$57.50. ($\$46.00 \div 80\% = \57.50 ; to check: $\$57.50 \times 20\% = \$11.50 + \$46.00 = \57.50)

[\[Eds: margin pointer to backgrounder Profit Planning \(Wintner\) \]](#)

Net Profit

On the accrual Profit-Loss Statement, the Net Profit is considered to be a firm's 'Bottom Line.' It is the total dollars earned after all salaries and expenses have been deducted (regardless if payment) from the Net Operating Revenue. The only thing remaining at this point, if a profit was earned, is the decision about its distribution to the staff and principal(s).

The need to define the actual available cash-on-hand that would cover such distributions was previously discussed. There are examples of firms that, in spite of having earned a Net Profit, did not have adequate available cash-on-hand to make the distributions they deemed appropriate. To supplement their available cash-on-hand and pay for

these distributions, the principal(s) sometimes decide to tap into the firm's Line of Credit. In the case of firms that do not have a Line of Credit, some have been known to apply for a loan. While these are individual business decisions, they need to be considered carefully as to the wisdom and soundness of this course of action. If the firm is extremely well-managed, the repercussion of such decisions might never be negatively experienced, but for most, taking on debt to pay bonuses is a decision laden with risk.

Sometimes a firm has available cash-on-hand, but does not have any earned Net Profit at the end of the year. In this scenario, some may decide to go ahead and make modest distributions. Again, this is a business decision, but not necessarily a prudent one.

Planning for profitability and its eventual distribution is a process to engage in before the start of each coming year to provide a firm with the best advantage to succeed.

Project Contract Related Financial Management Issues

Most project contracts contain information that will require a keen awareness of its impact on potential project profitability and the periodic monitoring of a project's progress. Among the information to review and monitor carefully is: the fee basis type, the basic scope of services, scheduled invoices and other opportunities that might lead to supplemental/additional services, revenue and income.

Fee Basis Types

Every project will have a designated type of fee basis. There are several types and each basis has its own nuances and financial management implications. The following are the most common types:

- Stipulated Lump-Sum
- Fixed Fee + Expenses (with or without a cap limit on expenses)
- Percentage of Construction Cost
- Hourly to a Maximum + Expenses
- Hourly – Open-Ended (no established maximum) + Expenses
- Fee per Unit/SF (mostly used on Residential projects) + Expenses

For most project contracts the client will stipulate the type of fee basis. Public sector (government, institutional) projects will almost always be a Stipulated Lump-Sum or a Percentage of Construction Cost fee basis. Private sector projects could be anyone of the above types, depending on the client and the project type.

[\[margin pointer: For more information on project fee development, see Compensation Methods and Strategy \(Richards\)\]](#)

Regardless of the fee basis type stipulated, each type affords a certain number of benefits and disadvantages; all of which need to be considered as one part of a 'go/no-go' decision to respond to a RFP.

[\[margin pointer: For more information on go/no-go process see Qualification, Proposals, Interviews \(Hadley\)\]](#)

Scope of Services

The Scope of Services is a portion of the project contract that bears careful scrutiny. The scope of services in many project contracts are not clearly defined which leaves too much to interpretation by the reader. This can lead to disastrous results for the architect, primarily in the area of lost revenue and subsequent lost income.

To keep this from happening, it is advisable to have at least two senior members of the firm read and review the scope of services requirements to ascertain if any portions are unclear. There may be a need to stipulate the number included of a certain kind of meeting or the number of design scenarios per design phase to be prepared for client approval. Anything that is left open-ended and subject to interpretation and may lead to a "bottomless pit" of expectations by a client.

[\[margin pointer: For related information see Defining Project Services \(Birx\)\]](#)

In addition to the above, there are certain words that are used in contracts with owners that are likely to result in a difference of interpretation of what the client was requiring, or what the legal implications might be and/or how the requirement might impact the professional liability insurance carried by the firm. The most detrimental example is the words used in the 'Indemnification' clause of the contract. It is advisable to have a firm's legal counsel and their professional liability insurance carrier's representative review the contract to avoid any potentially expensive surprises.

[margin pointer: For information related to contracts, insurance, and risk management see [Risk Management Strategies \(Longley\)](#), [Insurance Considerations for Business and Professional Liability \(Casso\)](#) and [Owner-Generated Agreements \(Harness\)](#).]

Conclusion

Since each professional design firm is unique, so will be their respective operational policies and procedures. Therefore, prior to adopting any of the contents of this article it is recommended that firm leaders seek professional input from trusted outside sources familiar with the firm. At a minimum, firm leaders are urged to review and discuss this article with accounting advisers, both in-house and outside. Once discussed, any decisions to adopt specific changes to their current accounting system should be implemented by the accounting staff and as much outside professional guidance as is available.

As a summation, the following are the main points of each of the major sub-topics in this article:

- **Accounting & Financial Management Reports**
The essential distinction between accounting reports and financial management reports relates to the parties for whom these reports are created. Accounting reports serve to identify the external realm of a firm's financial performance as it relates to tax liability. Financial management reports serve to facilitate the internal decision-making process by a firm's leader(s).
- **Cash-Basis & Accrual-Basis Reports**
The two types of financial reports – Cash-Basis and Accrual Basis – respectively serve a firm's accounting and financial management needs. These reports are inter-related in that they share the same data for time and money, but organize this data in different formats and with a different focus and purpose. In accounting parlance, the use of these two types of reports is referred to as 'double-entry bookkeeping.'
- **The 'Mattox Format'**
This article introduces a different approach to the accounting process and the concepts of financial management for professional service firms. The Mattox Format is a proven viable alternative methodology to what is generally

commercially available for A-E financial software systems. The Mattox Format has a 30+ year legacy since its introduction in the late **1970's and early 1980's** by its designer and developer, Robert F. Mattox, FAIA (retired).

- Performance Goals

With planning and monitoring as two critical elements in any successful business operation, it is essential that a set of performance goals be established and re-evaluated on an annual basis to allow for developing trends, operational and policy changes and to remain competitive and profitable.

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

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Key Financial Performance Indicators (Metrics)

Steve L. Wintner, AIA Emeritus

The Profit-Loss Statement and the Balance Sheet each have a relevant number of key financial performance indicators that provide firm leaders with valuable metrics to assist them in understanding their firm's financial condition and guiding in making sound business decisions.

The Profit-Loss Statement includes the following seven indicators to calculate from each month's financial report (in no particular order).

1. Utilization Rate: Measures the overall efficiency and effective use of labor - not a measure of productivity. This also is not a measure of the number hours billed - only hours charged to projects.

Formula: $\text{Direct Labor Hours} \div \text{Total Labor Hours} \times 100$ (as a %)

Example: $32 \text{ hours} \div 40 \text{ hours} = 80\%$

Target: Entire firm: 60-65%

Professional-Technical staff, including Principals: 75-

85%

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2. Overhead Rate: Measures the cost of operations not directly attributed to projects.

Formula: Total Indirect Expenses ÷ Total Direct Labor (in \$\$\$)

Example: $\$308,241 \div \$200,914 = 1.53$ (for an hourly salary of \$10.00/hr. the Overhead Cost would be $1.53 \times \$10. = \15.30)

Target: 1.30 to 1.50 of Total Direct Labor

3. Break-Even Rate: Measures the total cost of operations for every dollar spent on Direct Labor.

Formula: Overhead Rate + 1.00 (represents the unit of cost for an hour of salary)

Example: $1.53 + 1.00 = 2.53$ (for an hourly salary of \$10.00, the Break-Even Cost would be $2.53 \times \$10 = \25.30)

Target: 2.30 to 2.50 of Total Direct Labor

4. Net Multiplier: Measures the Revenue generated for every dollar spent on Direct Labor. This indicator must be greater than Break-Even Rate for a Net Profit to be realized.

Formula: Net Operating Revenue ÷ Total Direct Labor (in \$\$\$)

Example: $\$622,207 \div 200,914 = 3.1$

Target: Greater than Break-Even Rate (industry benchmark: 3.0+)

5. Profit-to-Earnings Ratio: Measures the firm's effectiveness in generating a Net Profit (as a %).

Formula: Net Profit (before Distributions and Tax) ÷ Net Operating Revenue

Example: $\$108,817 \div \$622,207 = 17.49\%$

Target: Equal to or greater than the anticipated Net Profit in the Annual Profit Plan (20% or greater)

6. Net Revenue per Employee: Measures the Revenue earnings for each employee. Based on targeted Net Profit, this indicator contributes to the establishing of the Net Operating Revenue in the coming year Annual Budget.

Formula: Annual Net Operating Revenue ÷ Total number of employees

Example: $\$622,207 \div 6 \text{ employees} = \$103,701 \text{ per employee}$

Target: In excess of \$100,000.00 per employee

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7. Aged Accounts Receivable: Measures the average time interval in days between the date of outstanding invoices and the date payment is received.

Formula: $\text{Average Annual Accounts Receivable} \div (\text{Net Operating Revenue} \div 365 \text{ days}) = \text{calendar days before payment is received}$

Example: $\$245,090 \div (\$622,207 \div 365 = 1,705) = 144 \text{ calendar days}$

Target: 60-90 calendar days (anything over 90 days means the firm is 'lending' money to client at zero cost.)

The Balance Sheet includes the following four indicators to calculate from each month's financial report (in no particular order).

1. Solvency: Measures a firm's ability to pay current debt. This is also known as the 'Current Ratio'.

Formula: $\text{Total Current Assets} \div \text{Total Current Liabilities}$

Example: $\$521,667 \div \$218,658 = 2.39$

Target Ratio: Min. 1.5 to 1.0

2. Liquidity: Measures a firm's ability to convert Assets to Cash. This is also known as the 'Quick Ratio'.

Formula: $(\text{Cash} + \text{Accounts Receivable} + \text{Revenue Earned, Not Billed ('Work in Progress')}) \div \text{Total Current Liabilities}$

Example: $\$518,194 \div \$218,658 = 2.37$

Target Ratio: Min. 1.0 to 1.0

3. Leverage: Measures a firm's ability to manage Debt effectively. This is also known as 'Debt-to-Equity' (as a %).

Formula: $\text{Total Liabilities} \div \text{Total Equity} \times 100 \text{ (as a \%)}$

Example: $\$280,738 \div \$949,451 = 29.57\%$

Target: Less than 35%

4. Return on Equity: Measures the accumulated amount of money returned on a stockholder's investment for their risk and efforts.

Formula: $(\text{Total Net Operating Revenue} - \text{Total Expenses}) \div \text{Total Equity} \times 100 \text{ (as a \%)}$

Example: $(\$622,207 - \$509,156) \div \$949,451 \times 100 = 11.9\%$

Target: Equal to or greater than the anticipated Net Profit in the Annual Profit Plan (20% or greater)

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