Accounting Mistake Made by Many Architecture and Engineering Firms

Executive Overview

Few of us have taken any accounting courses and even fewer have taken the time to earn an MBA. So when it comes to the accounting side of running our business it most likely is not our strong suit. We also tend to rely on our accounting software to do the dirty work for us.

Since the huge majority of AE firms are small businesses they have chosen to use the number one small business accounting software, QuickBooks. According to surveys done by PSMJ nearly 80% of AE firms in the United States are using QuickBooks.

When QuickBooks creates the accounts for a new company using the template for Architects and Engineers it fails to set up what is needed and the mistake is already made. Read on to discover what the mistake is, why you should care, and how to correct it.

Only One Account for Payroll Expenses

When QuickBooks sets up the Chart of Accounts it creates a single expense account for all of your payroll expenses. The challenge with this is you can’t separate your direct costs from your indirect costs (overhead).

With this set up there is no way to calculate three critical factors:

- Overhead Rate – the number of dollars of overhead for every dollar of direct labor.
- Billing Multiplier – net revenues divided by direct labor.
- Utilization Rate – direct labor divided by total labor.

Second Account for Overhead Payroll

You will need to create a second expense account to track indirect labor payroll costs. These include all of the other payroll expenses including Taxes, Benefits, Holiday, Vacation, PTO, Medical, etc.

But don’t stop there. You also need to include overhead labor for Marketing, Business Development, Continuing Education, Accounting, Administration, etc. The labor costs for these activities are overhead. Once you have a second account set up you will be able to generate your critical factors.

Depending upon how you manage your fees and whether or not you have sub-consultants you may elect to have your Direct Labor be a Cost of Goods Sold rather than an Expense.
The Importance of Net Fee
Calculating and utilizing your net fee enables you to measure all of your projects on an even playing field. It also allows you to look at national averages and compare your firm to others regardless of discipline.

You see, if you have sub-consultants for most of your projects as part of your gross fee and you calculate your profit as a percentage of the gross fee you are misleading yourself to believe that your profit percentage is rather low. Then you have a project where the sub-consultants contract directly with the owner so your gross fee is much less and you will see a much higher net profit percentage.

By removing the sub-consultants and reimbursable items from the equation you get a much more accurate view of your performance.

This also allows for firms who have a great number of sub-consultants to compare their ratios to firms who have few sub-consultants or none at all.

Overhead Rate and Why It Is Important
Your Overhead Rate is a very simple calculation. Add your Indirect Labor and General Expenses together. This is your total indirect or overhead cost. Then divide this number by your Direct Labor to get your Overhead Rate.

Caution!
When you calculate your Indirect Rate, or any other value for that matter, you must use 12 months of data. This enables your annual expenses to get evenly distributed. Any running 12 month period will do, you are not limited to a calendar year. In fact it is best to use the previous 12 months.

The national average in the United States is around $1.53. So for every dollar of direct labor that is charged to a project, a $1.53 in overhead is also attributed.
Here is where using the overhead factor gets to be fun. With this number you can now calculate the Net Profit for any given project. You can also categorize your projects in summary reports to identify where your best performers lie. Take a look at the insert to the left.

QuickBooks along with many other accounting software packages does not have a way to account for overhead. So QuickBooks can not tell you what your net profits are for a give project or category of projects.

The calculation to the left can and should also be ran on groups of projects. You should look at your project in several different categories such as building type, occupancy, fee structure, location or region, delivery method (design-build vs. plan spec.), private versus public, etc.

With this information you can knowingly target the projects that generate the highest profits for your firm.

Billing Multiplier

Like the Overhead Rate in the previous section this is an important number to use when evaluating the health of your firm and success of your projects. This number is a simple calculation of your Net Fee divided by your Direct Labor. The national average for this number is between a little below to a little above 3. So for every dollar of direct labor there should be around three dollars of Net Fee.

Using this number you can calculate your earned value, or supposed earned value for a project. If a project has $1,000 in direct labor charged to it, then around $3,000 of fee has been earned. Not for it to be earned you would have had to have made progress on the project. If this project has a total fee of $10,000 then you would need to be 30% complete to be on schedule and on target.

Utilization Rate

Here is another number that is a simple to calculate. Take your Direct Labor and divide it by your Total Labor (Direct Labor plus Indirect Labor). This will tell you what percentage of your labor costs are going to generating revenue. How effective your team is.

Now, this can not be calculated for projects because we are comparing project direct costs to overhead costs. But you can use this to compare divisions or studios. Since I have targeted this
paper towards small firms you may not have the various groups to measure. But you can measure your firm as a whole and you can look at individuals to see how they are spending their time.

In my experience, healthy firms run between 65% and 75%. This means that the majority of their labor costs are attributed to production. If they fall below these numbers they are in danger of becoming non-profitable.

Having a utilization rate above 80% usually means that not enough time is being dedicated to marketing, education, and other administrative tasks. Note that it is impossible to hit 100% because of holidays, vacations, and other benefits.

You may have a group of production personal who are in the 80’s but you will also have administrative staff in the low teens.

**Conclusion**
None of these very important indicators can be calculated if you have only one payroll expense account. These numbers are the life blood of your firms and should be studied carefully and often. Keep your project managers in the know so they are aware of where their projects stand.

To stay up on these reports you will need to routinely export your numbers out of QuickBooks and into a spreadsheet where you can run the calculations. While this can become tedious, it is necessary.

Our practice and project management software, Praesto AE, integrates with QuickBooks does this work for you. For more information about our solutions we can be reached as noted below.

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**About Base Builders**

Founded in 2002, Base Builders is the company that brings you innovative Practice and Project Management software solutions. Our goal is to simplify your operational management, increase project management effectiveness, improve profitability and enhance client relations. For more information about our products, please visit [www.basebuilders.com](http://www.basebuilders.com).

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