

Managing by the Numbers

by Joe Stoddard

Since the day the first cave family hired someone to make them into a “hut family,” contractors have been struggling with the tough operational questions that go hand in hand with growing or running a business:

- When can I hang up my toolbelt and get out of the field?
- Should my first employee be a secretary, a salesperson, or a project manager?
- How much can I afford to pay employees?
- When does it make sense to move off the kitchen table and open a real office?
- How many jobs should a salesperson sell and a project manager manage?
- Should I discount my prices to get more work? By how much?
- What about starting a couple of spec houses — good idea or not?

There’s a way to take nearly all of the guesswork out of these and many other important business decisions. It’s broadly referred to as “management accounting,” and while it’s similar to the GAAP (generally accepted accounting principles) that your accountant would use to calculate your taxes or prepare financial statements when you need a loan from the bank, there are significant differences.

GAAP accounting — also known as financial accounting — is largely historical, a meticulous record of where you’ve been. Management accounting, by contrast, is forward-looking: It tells you not only where you’ve been, but where you’re going — and it tells you far enough ahead of time that you can change course if you need to. Once you understand the principles of budgeting and tracking in management format, you’ll have the closest thing to a crystal ball this side of Harry Potter. With a few key spreadsheets and reports, you’ll be able to operate your business like never before, knowing beforehand that a decision to hire an employee, open an office, or take on a new type of work will be successful.

Note that I’m not an accountant and dislike tedious “bookkeeping” as much as the next guy. Management accounting is not a substitute for your CPA. If you don’t

already have a good accountant, please go find one who is expert in the issues surrounding a construction company: minimizing your taxes and managing your liability exposure (so you don’t lose everything you’ve worked for if somebody is hurt or killed on your job site).

While many of the same concepts found in financial accounting still apply — gross profit margin, direct vs. indirect costs, and fixed vs. variable costs, for example — management accounting practices will sometimes differ from what your accountant does. That’s perfectly okay. Just follow your CPA’s advice to the letter when it comes to any financials you need to show to the outside world.

Over the next several months I’ll cover the specifics of management accounting and show how it’s used to make specific decisions that every contractor faces. This month I’ll start with some basic principles and identify some of the key metrics. And if something doesn’t make total sense, don’t worry — I’ll be revisiting specific topics in greater detail in future articles.

Planning the Work, Working the Plan

Most builders understand a project budget — planning how many 2x4s or how much labor will be required for a project. The foundation of working “by the numbers,” though, is not just budgeting job costs but actually planning your sales and revenue based on some key factors: gross profit, break-even volume, and your personal income requirements. In other words, you’re going to plan to succeed instead of just taking any job that shows up.

Gross profit. Builders tend to think about “profit” in terms of what’s left over after all the bills are paid — that is, net profit. But in fact, gross profit margin is the primary business driver in a “by the numbers” approach, for reasons that will become clear as we go along.

The simple formula for gross profit margin is:

Total Sales – Cost of Goods Sold = Gross Profit

Gross profit (GP) is the difference between what you sell jobs for (total sales) and the cost of your “sticks and bricks” — the materials and labor required to produce the project. GP is what you have left before taking out any

Home-Builder Cost Breakdown	
Total Sales	100%
Direct Costs	
Sticks/Bricks (COGS)	-50%
Land/Lot	-25%
Total Direct Costs	-75%
Gross Profit	25%
Overhead	
Sales & Marketing	-5%
Construction Indirects	-5%
Supervision (2%)	
Site expense (1%)	
Warranty liability (1%)	
Finance cost (1%)	
General & Administrative	-5%
Owner's Salary (1%)	
Other Salaries (2%)	
Office Expense (1%)	
Technology (.5%)	
Misc. (.5%)	
Total Overhead	-15%
NET PROFIT on SALES	10%

Remodeler Cost Breakdown	
Total Sales	100%
Total Direct Costs	
Sticks/Bricks (COGS)	-60%
Gross Profit	40%
Overhead	
Sales & Marketing	-12%
Construction Indirects	-10%
Supervision (6%)	
Site Expense (1%)	
Warranty Liability (2%)	
Finance Costs (1%)	
General & Administrative	-8 %
Owner's Salary (4%)	
Other Salaries (2%)	
Office Expense (1%)	
Technology (.5%)	
Misc. (.5%)	
Total Overhead	-30%
NET PROFIT on SALES	10%

While not carved in stone, most small-business gurus would agree that a 10 percent net is a reasonable return on your investment, considering the risks of contracting. Earning 10 percent is better than you'd do with a money market account and probably better than most other investments these days, but here's the catch: That 10 percent return has to be *after* you pay yourself a reasonable salary. Too many contractors take either the profit or the salary, but never seem to be able to earn both.

of your "overhead" (office expenses and utilities, for example) or any of your "indirect" job costs, such as supervision, warranty liability, or site costs like Porta-Johns and job trailers.

I'll leave the details for a future column; for now, just remember that most new-home builders need to have a gross profit of 25 percent or so, but for remodelers that number jumps to 40 percent to 50 percent of sales. Why the big difference? Because remodeling projects are smaller in dollar volume, there are higher sales and marketing costs, there's more supervision required, and there's greater warranty exposure (see illustration, facing page).

Why is it so important to focus on gross profit and not just on the bottom line? Well, which would you rather do — run yourself ragged, or earn the same money dealing with fewer projects? Adding or subtracting just a few percent to your gross profit on every job can change your entire outlook for the year. Of course it's important to keep your overhead under control, but it's even more important to plan for the highest gross profit possible on every job you do. This brings us to the next important metric, your break-even volume.

Break-even volume. In a "by the numbers" operation, your

break-even volume is the minimum amount of work (in dollars or number of projects) required to "cover your nut" and keep your doors open for some period of time, typically a year. It comes before your net profit, which is the return on your investment, but after you've paid yourself for everything you contribute to the business. The doors couldn't stay open without you, so you deserve some percentage of sales as a salary for being the boss. If you sell the jobs, you're also due a reasonable sales commission for that, and if you supervise jobs or work with tools, you should be compensated for those activities as well.

Most contractors have never calculated their break-even volume; instead, they take whatever work walks in the door, for whatever price they can sell it for at the time. That's an inefficient way to operate, and it can lead to early burnout and business failure.

In a future column, we'll examine how to calculate your break-even volume and the "contribution margin" for each job — the amount a job contributes to covering the total cost of keeping you in business. For now, let's assume you've calculated your break-even point to be \$120,000 in gross profit for the year, and your average job is an \$80,000 addition that contributes \$20,000

Planning to Meet Your Financial Goals			
Example #	1	2	3
	Original Budget	Change Volume	Change Margin
Number of Sales	6	8	6
Selling Price	\$80,000	\$80,000	\$85,200
Total Sales	\$480,000	\$640,000	\$511,200
Direct Cost Per Job	\$60,000	\$60,000	\$60,000
Gross Profit Per Job	\$20,000	\$20,000	\$25,200
Markup Percentage	33.33%	33.33%	42.00%
Gross Profit Percentage	25%	25%	29.58%
Total GP	\$120,000	\$160,000	\$151,200
GP Required for Raise	—	\$151,200	\$151,200
Cushion	—	\$8,800*	—
Owner's Compensation Taken	\$73,800	\$105,000	\$105,000
Maximum Available for Owner to Take as Compensation	\$73,800	\$113,800	\$105,000

*Example 2 yields an overhang of \$8,800 if all other overhead costs remain the same.

Our owner originally was compensated a total of \$73,800 — a combination of sales commission, trade wages, and owner's salary — on six sales (Example 1). To achieve a compensation goal of \$105,000 — an increase of \$31,200 for the year, or a GP of \$151,200 — he or she can either build more projects at the same markup/margin (Example 2), continue planning for six projects but raise the average selling price to \$85,200 (Example 3), or do a combination of the two approaches (not shown).

in GP. Your break-even volume is six of those projects (6 × \$20,000 = 120,000), or \$480,000 in total sales at a gross profit margin of 25 percent. To stay on track, you'd need to sell, start, and complete one of those jobs every two months.

Let's say the year starts out strong — you sell two jobs at full price in January, but February brings no leads. In March, you decide to offer a 10 percent discount (–\$8,000) to sign a job. Meanwhile, your lead carpenter throws in a few “extras,” giving away an additional \$2,000 in upgrades to keep a customer happy. No big deal, right?

Wrong. If that trend continues in March, April, and beyond, each project is now contributing only \$10,000 to the cost of keeping your doors open, and the year is slipping away. At that rate, you'll have to sell a total of 10 jobs (the two at full price plus eight more at the lower contribution margin), and instead of one job every two months, now you need to sell, start, and finish one job a month.

Do you even have the subs and administrative resources to pull that off? Most contractors don't, and would wind up doing the usual rob-Peter-to-pay-Paul shuffle, starting projects before plans were ready, scrambling for bank draws before the work was done, and leaving jobs unstaffed for days or weeks while disappointed customers sat by wondering what was going on. Quality control would go out the window because your lead carpenters weren't prepared for that many job sites, and you'd be forced to bring unfamiliar subs into your operation to take up the slack.

And if you're like most small contractors, you'd also probably stop paying yourself the salary you had budgeted, so you'd be back in the field working for wages. This is the slippery slope many contractors often find themselves on — working harder and earning less. But if you learn to work by the numbers, you can avoid this scenario. Which brings me to the third important metric, your personal financial goals.

Personal financial goals. Covering your overhead “nut” is necessary, but the real reason you're in business is to earn a living (your salary, wages, and sales commissions) and see some return on your investment (your company's net profit). At your current planned sales volume of six jobs totaling \$480,000, your budgeted compensation for the year might look like this:

Sales Commissions	\$19,200	(4% of sales)
Trade Wages as Lead		
Carpenter (half-time)	\$17,500	(3.65% of sales)
Supervisory Wages as		
Lead Carpenter (half-time)	\$17,900	(3.75% of sales)
Owner's Salary	\$19,200	(4% of sales)
Total Compensation		
(before net profit)	\$73,800	(15.4% of sales)

Furthermore, if you stay on track to earn a 10 percent net profit, your company will finish the year with a net profit of \$48,000. While in theory this is “your” money, don't buy the tickets to

Tahiti just yet. Net profit is the money you'll need to grow the company in the coming year, and you still haven't totally settled up with Uncle Sam, so it's just a paper number until your accountant tells you otherwise.

What if your personal financial goals were higher — say, \$105,000 per year before your net profit? In a by-the-numbers operation, instead of watching the year go by and guessing at how many sales at what profit margin you'll need, you start by setting your goal, then work backward. I'll cover this in detail later, but here's a quick example of the process.

The difference between your current budgeted compensation for the year of \$73,800 and your goal of \$105,000 is \$31,200. Assuming that your average selling price, job costs, and overhead don't change, you could budget for more sales at the same gross profit margin to earn the additional dollars you need. Two more average projects — eight for the year — would cover the difference with a nice cushion to spare, but only if you can do them without using any extra staff, facilities, or other overhead (see example, next page).

Another option would be to rebudget the original six sales at a higher price to cover the additional income. But if you're seeing a lot of price pressure from the competition — or if, perhaps, you aren't highly skilled as a salesperson — the price increase could represent a barrier you might not be able to overcome. And if you miss your sales targets early in the year, the rest of the year will be that much more difficult.

Yet a third option would be to find the money you need on each project without raising prices. You might be able to lower your direct costs by negotiating with your subs and suppliers. You might also be able to lower fixed overhead such as utilities or rent so that your break-even for the year is lower.

Finally, you could use a combination of all of these ideas: Budget seven sales at a slightly higher price while squeezing a few percent out of your costs and overhead. The point is that you're being proactive and planning before the year begins — not reacting in the heat of battle when it's probably too late.

Where Not to Trim

While gross profit should be your primary focus, there is nothing wrong with also keeping as tight a lid on your overhead as you can, with a few important exceptions.

Supervision. This is one expense category you never want to shortchange, whether you're paying yourself or hiring an employee. Spending more to hire the absolute best supervisory talent you can find will benefit your company in a number of ways, from increasing customer satisfaction to reducing job completion

times to lowering your warranty liability. And when you're ready to hang up the toolbelt, you won't be able to afford to replace yourself with an employee unless you've budgeted adequately.

Marketing. Many of you proudly say that 100 percent of your work is "by referral," but there is still a cost involved in recruiting and maintaining all that good will. Moreover, when there is a sudden downturn in the economy, as there is now, those builders and remodelers who have been actively marketing all along have an advantage. With management accounting, you can track which types of marketing performed best, right down to how profitable jobs from a particular lead source (the Internet) are compared with others (word of mouth).

Technology. When you've trimmed all you can trim, sensible technology is the final frontier for squeezing out those last dollars of profit. The Internet has made it possible to connect everyone on your project in real time, letting you see inefficiencies that used to go unnoticed. But unless you've budgeted enough money for the software and services you need, you won't be able to afford them when the time comes.

Suggested Reading

With each column, I'll have something you can download or a reading recommendation. For next time, pick up a copy of Jack Stack's "The Great Game of Business." This case study of how a business can be transformed when everyone is operating by the numbers is one of the best and most concise I've read. It's available at greatgame.com. And while you're online, go to jlconline.com, click on the JLC Extra tab, and listen to Alan Hanbury's explanation of why active marketing — not relying on word of mouth — is so important for remodelers.

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