

MARK-UP BASICS



Price your jobs to cover your overhead and profit if you wish to stay in business By Paul Hentzen

When I give talks or attend trade shows, I'm often asked about mark-up, overhead, and net profit. Some people even talk in hushed tones when asking about what percentages our company uses, as if we might be letting out some tightly held secret. From these discussions, I've found that a great many contractors do not understand the concept of mark-up or the difference between mark-up and profit.

We seem to be entering the age of the professional remodeler. Consultants are springing up to spread the news about professional business practices, and knowing your numbers. I find it comforting to know that in most cases the concepts these consultants talk about are in fact the same things that we and other professional remodelers have been practicing for years. The consultants have simply embellished them, given them names, and in some cases made them more difficult to understand.

The Basic Terms

When it comes to mark-up, overhead, etc., it seems there are many different definitions for the same things.

Below are some definitions we use in our business:

Selling price (SP): the price we charge to the customer.

Direct costs (DC): total of all labor, material, and subcontractor costs applied to a particular job. (Labor costs are the actual hourly wages; material costs include permits.)

Mark-up (MU): the number by which direct costs are multiplied to give us the selling price. (Mark-up X direct costs = selling price.) This figure can also be expressed as a percentage. For example, 1.5 = direct costs is the same as adding 50 percent to the direct costs.

Gross profit (GP): also called gross margin or margin. It is the difference between selling price and direct costs.

Overhead (OH): all costs that are not direct costs.

Net profit (NP): what is left over after direct costs and overhead costs are subtracted from selling price.

Net profit is the final result and the primary reason to understand and apply mark-up. If a company does not show a net profit after taxes, then the

company won't survive. We have posted a profit every year of our 25-year history. To a large extent, this performance results from a thorough understanding of how to mark up costs.

Mark It Up 50 Percent

For purposes of this discussion, a typical remodeler is one who has an office separate from his home with all the required utilities, phone, insurance, etc., that go with it. This company has at least one office person or secretary, one or more vehicles, carries liability and workers' compensation insurance, has some company owned tools and equipment, and has full-time craftsmen on the payroll who perform most of the labor on the jobs.

Our experience has shown us that the overhead of a typical remodeler will range from 25 to 33 percent of his total sales volume. This remodeler must use a minimum mark-up of 1.5 X direct costs (or 50 percent mark-up) to post a profit and stay in business.

A primary reason why many small remodelers fail is their inability to calculate their overhead and to understand the concept of mark-up. When I explain mark-up to them they often say that they could never get any work if they marked up their costs that much. Their only alternative, however, is to go under because they are not able to cover overhead.

I readily agree that the average homeowner is not able to accept a 50 percent mark-up of direct costs. For too many years they have heard "cost plus 10 percent" or "cost plus 10 percent overhead and 10 percent profit." If a contractor presents his costs to the customer in such a way that it allows him only 10 to 20 percent mark-up of direct costs, then he should change his presentation. This is a problem with market-ing, not mark-up.

Doing the Arithmetic

The only cost figure in the above definitions that may be difficult to determine without adequate accounting records is overhead.

It is fairly easy to calculate the direct

costs in a job. Any trained estimator can tell you how many hours it will take to complete a job, how much material it will take, what the material costs are, and the amount of the subcontractor bids. The labor costs are the number of hours estimated times the hourly wage paid. For example, if the carpenter is paid \$12 per hour and you estimate he will work 100 hours on the job, then the direct labor cost is \$1,200.

It is the total of these direct costs that is multiplied by some number or percentage to give us the price we should charge the customer. That number or percentage is the mark-up. The trick is to know how much we must mark-up the direct costs or how much over and above our direct costs we need to charge to cover overhead and generate a profit.

Throughout the year, all direct costs are applied to their respective jobs, and the direct costs can be calculated as a percentage of the selling price. All other expenses are overhead. But because overhead costs do not come in evenly every month, they must be kept track of and averaged out over a period of time, generally a year.

Here is where a good set of accounting records comes in to play. In order to know what your mark-up should be, you must first know what your overhead is.

Let's work through an example of how we mark-up our costs:

Assume the direct costs on a particular job are \$100. We would use a mark-up of 1.5 to calculate the selling price, which is the price we charge to the customer. (SP = MU X DC)

Direct Costs	\$100
Mark-up	x 1.5
Selling Price	\$150

The selling price of \$150 less the direct costs of \$100 will leave us \$50 in gross profit, or approximately 33 percent gross margin. This means the \$50 in gross profit represents one third of the price charged to the customer. (GP = SP - DC)

Selling Price	\$150
Direct Costs	- 100
Gross Profit	\$50

The Bottom Line

If we are able to maintain this 33 percent gross margin over all our jobs and we have a total yearly sales volume of \$1,000,000, then the direct costs should account for two thirds of the volume or \$667,000 and the gross profit will be \$330,000.

Total Sales Volume	\$1,000,000
Gross Margin	X 33%
Gross Profit	\$330,000

In the typical remodeling company, the overhead (the costs that are not direct costs) will amount to between 25 and 33 percent of total sales volume.

Sales Volume	\$1,000,000
Overhead (%)	X 25%
Overhead (\$)	\$250,000

In this example, with a 25 percent overhead subtracted from the gross profit, the net profit is \$80,000 or 8 percent of the total sales volume. If the overhead would have been 33 percent then the net profit would be zero, we would break even. (NP = GP - OH)

Relationship Between Markup and Gross Profit

If You Want
This **Gross Profit** Then You Must
Percentage To
Appear on Your
Statement

**Mark-Up Your
Cost by This
Percentage**

25.0	33.3
26.0	35.0
27.0	37.0
28.0	39.0
28.5	40.0
29.0	40.9
30.0	43.0
31.0	45.0
32.0	47.0
33.0	49.0
33.3	50.0
34.0	51.0
35.0	54.0
36.0	56.0
37.5	60.0
38.0	61.0
39.0	64.0
40.0	66.7
42.6	75.0
45.0	82.0
50.0	100.0
66.7	200.0
75.0	300.0

*Shaded area shows range for typical remodeler.

Gross Profit	\$330,000
Overhead	- 250,000
Net Profit	\$80,000

As can be seen from this example, a 50 percent mark-up does not yield a 50 percent gross profit, but rather it yields a 33.3 percent gross profit (see table).

The mark-up figure of 1.5 times or 50 percent of direct costs will generate, for the typical remodeler, a modest net profit of from 2 to 8 percent. A net profit of 10 percent would be more appropriate and should be the goal of anyone doing remodeling or repair work. If you desire a net profit of 10 percent and your overhead is 30 percent of sales, then the gross margin must be 40 percent. To achieve a 40 percent gross margin a mark-up of approximately 1.67 or 67 percent must be applied to direct costs.

Example:

Direct Costs	\$100
Mark-up	X 1.67

Selling Price	\$167
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Selling Price	\$167
Direct Costs	- 100

Gross Profit	\$67
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Selling Price	\$167
Overhead (%)	X 30%

Overhead (\$)	\$ 50 (rounded)
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Gross Profit	\$67
Overhead	- 50

Net Profit	\$17
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Net Profit (\$)	Selling Price	Net Profit
(\$17)	÷	(\$167) = (10%)

Gross Profit	Selling Price	Gross Margin
(\$67)	÷	(\$167) = (40%)

Usually the percentage of overhead to sales will stay the same as the volume goes up, so the same mark-up is used. But this does not hold true all the time. We have found the mark-up will vary according to the type of work.

In the light-commercial market where the job size is larger (\$100,000 plus), companies are organized differently. Generally more of the work is subcontracted out so the overhead costs (insurance, FICA, etc.) associated with full-time employees are substantially reduced (all you have on the job is a foreman and maybe a couple of helpers). Also the jobs are larger, consequently the total sales volume is larger, so the overhead percentage will go down.

Residential Remodeling	
Volume	\$1,000,000
Gross Margin (50% Mark-up)	× 33%

Gross Profit	\$330,000
Overhead	- 250,000
Net Profit	\$80,000
(Overhead %)	25%

Light-Commercial Remodeling	
Volume	\$2,000,000
Gross Margin (20% Mark-up)	× 17%

Gross Profit	\$330,000
Overhead	- 250,000

Net Profit	\$80,000
(Overhead %)	12.5%

The Cost of Doing Business

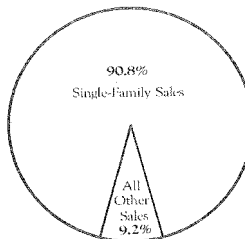
(For Single-Family Home Builders Earning under \$1 million)

One way to evaluate your financial position is to compare your company's performance with others in the industry. The Business Management Committee of NAHB has conducted studies over the years to help you do this. Their seventh study is reported in NAHB's publication 1986: *Cost of Doing Business for the Single-Family Home Builder* (For original, contact NAHB Bookstore at 15th and M Streets, N.W., Washington, D.C. 20005).

We've pulled out some of the more significant numbers and presented them here for your use. See how you compare.

Company Profile

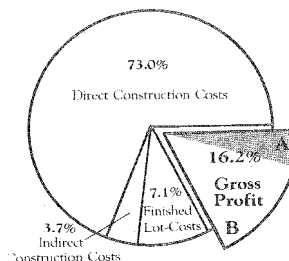
Breakdown of Sales



Builder Data:

Number of New Homes Started	5
Number of New Homes Sold	4
Percent Using Outside Brokers	65.4
Percent Using Model Homes	23.2
Sales per Employee	\$108,325

Costs and Gross Profit (Percentage of Total Sales)



A. Net Income: 4.1%. To get net income *before taxes*, you need to add *non-operating income* (typically 1.5% of total sales, and include all income not from construction, such as interest or investment income, selling off your surplus equipment, and other financial maneuvers).

B. Operating Expenses:

Financing Expense	2.7%
Marketing Expense	1.7%
Gen'l & Admin. Expense	7.7%
Total	12.1%

Definitions:

Direct construction costs includes permits, labor, materials, subcontractors, equipment rentals, and any other charge that can be attributed directly to the individual unit of construction. Often referred to as "hard costs."

Indirect construction costs are necessary building costs which cannot be directly, easily, or economically attributed to an individual unit of construction. Examples include salaries of supervisory personnel, cost of operating field offices, trucks, small tools, construction utilities, and portable sanitation facilities.

Finished lot costs are the accumulated costs of finished lots that have either been developed or purchased. Includes the cost of raw land, financing and interest, land planning, zoning, engineering, grading, storm sewers, and the other costs pertaining to the developed or purchased lot.

Gross profit is calculated by subtracting total costs of sales from total sales. The result is profit on production *before* overhead is calculated. In the chart, you can see that the gross profit figure includes total operating expenses, and net income. See Notes A and B.

According to **Builder Magazine** (10/87), "industry management experts generally agree that tract builders should by setting gross profit goals in the 25 to 27 percent range, and that custom builders should aim for gross margins in the 20 to 22 percent range." But as the chart reveals, builder-respondents in this category fell far beneath this target, with an average gross profit percentage of 16.2 percent. —NEB

The overhead percentage went down but the overhead dollars remained the same. The light-commercial contractor as able to do more volume with the same overhead as the residential contractor because he subcontracted out more of the work and did larger jobs. I think the same holds true for the new home builder.

The trouble starts when a light-commercial contractor or a new home builder who is accustomed to a 20 or 30 percent mark-up enters the remodeling field. In order to perform professional remodeling work over the long term, a company will generally have overhead of approximately 25 to 33 percent of sales.

The reverse holds true for the residential remodeler entering the light-commercial or new-home market. If a remodeler charges 50 percent or greater mark-up in light-commercial or new-home building, then he will find that he can't get work because his price is too high. In order to compete he must alter the structure of his company.

We have found that we can operate successfully in both arenas—residential remodeling and light-commercial. Basically we have two company structures

under one roof. The repair and remodel work provides a base for us to operate from and the lower-margin commercial work is gravy. We have one foreman on the commercial jobs and he is experienced in that kind of work. Nearly everything is subcontracted out on the commercial jobs.

To summarize about mark-up: If you are a small- to medium-size remodeling contractor, then your mark-up should be between 1.5 and 1.67 (50 to 67 percent), and your overhead will typically run between 25 and 33 percent. A light-commercial contractor should be able to operate between 1.25 and 1.4 (25 to 40 percent) mark-up and have overhead between 15 and 25 percent.

Some basic rules of thumb:

1. Mark-up is applied to direct costs.
2. Gross margin is always expressed as a percentage of selling price or total sales.
3. Overhead is always expressed as a percentage of total sales.
4. Net profit is always expressed as a percentage of total sales. ■

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