KEEPING TRACK OF LABOR COSTS

by John Sylvestre

Accurate estimates start with a good system of easy-to-use time cards

One of the most difficult parts of preparing an estimate is filling in that column with the heading "labor." Tracking costs from subcontractors and suppliers is enough trouble without having to dig through old job records to find out how long it took your crew to frame a hipped roof or drywall an addition. But without accurate numbers for your company's labor costs, your estimate is a gamble. According to remodeling consultant Linda Case, 90% of all cost overruns on remodeling jobs are related to labor expenses.

My company averages 25 jobs a year with seven people in the field. Our jobs range from $8,000 to $300,000 or higher, with labor costs that range from $1,000 to $50,000, depending on the project. In the past, our labor estimates and actual costs were frequently out of line. Our bookkeeper tried on occasion to provide us with labor cost information by manually comparing time cards to paychecks, but the reports were too sporadic to give us a solid base to estimate by.

About seven years ago I decided to find an easier and more reliable system for tracking labor costs. Like many small contractors, bookkeeping is not my favorite activity. So I purchased Lotus 1-2-3 (Lotus Development Corp., 61 Medford St., Somerville, MA 02143; 800/872-3387), a spreadsheet program that is flexible and easy to customize to your needs. Similar software, such as Excel (Microsoft Corp., 1 Microsoft Way, Redmond, WA 98052-6399; 800/426-9400), or Quattro (Borland International, 1800 Green Hills Rd., Scotts Valley, CA 95066; 408/438-5300), would work equally well.

After a few mistakes and a lot of work, the system I've developed lets me track labor costs on each job as it progresses and gives me accurate numbers to which I can compare my estimate. Because our system is based on information we take from our employees' time cards, I can see where we stand on any job every two weeks — when our payroll is issued. My system has helped me realize where my crew is most proficient and, inversely, which tasks are cheaper to sub out. Most importantly, I've developed a historical database that can be used to estimate labor on future projects based on actual work completed.

Getting Set Up

Once you've got the spreadsheet installed on your computer, your first step is to decide just how much detail you'll need to make your labor cost accounting system most useful for your company. Keep in mind that more detail yields more precise information, but it also means more work. Since the system is based on the information your carpenters provide on their time cards, be realistic as to how much you can expect from them.

For example, when we first set up our system, we divided our jobs into more than 50 different subtasks. We were basically asking our crew to tell us how long it took to move studs from the lumber pile, lay them out, nail them into a wall, and erect that wall. It would be great to have all this detail — like having a time and motion study for each job. But we quickly discovered that our crew was spending more time filling out their time cards than doing their work.

For some very small companies,

Sylvestre Construction Time Card

	TASK	M	TU	W	TH	F	☆
10	SUPERVISION						
20	PRELIM/DEMO						
30	FRAMING						
40	EXT FINISH						
50	ROOFING						
60	INSULATION						
70	SHEETROCK						
80	INT FINISH						
90	CLEAN UP						
100	EXTRA						
	SUBTOTAL						

JOB:
ID NUMBER:

	M	TU	W	TH	F	☆

JOB:
ID NUMBER:

	M	TU	W	TH	F	☆

NAME _____

WEEK ENDING _____

REG. HOURS _____

O.T. HOURS _____

HOLIDAY/OFFICE HOURS _____

TOTAL HOURS _____

Figure 1. *A labor cost accounting system is only as good as the information you get from the field. To make it simple for the crew, Sylvestre's time cards have big boxes that can be filled in with a carpenter's pencil.*

Job Labor Report

PAYROLL PERIOD ENDING AUGUST 30
JOB # 9109 JOB NAME: SMITH

	TASK	ESTIMATE	ADJ TOTAL	ACTUAL COST	VARIANCE %	VARIANCE $
10	SUPERVISION	319	319	75	76	244.00
20	PRELIMINARY/DEMO	35	35	300	-757	-265.00
30	FRAMING	2,089	2,089	1,700	19	389.00
40	EXTERIOR FINISH	756	756	1,123	-48	-367.00
50	ROOFING	0	0	0	0	0.00
60	INSULATION	75	75	0	0	75.00
70	SHEETROCK	44	44	225	-411	-181.00
80	INTERIOR FINISH	756	756	1,120	-48	-364.00
90	CLEANUP		0	0	0	0.00
100	EXTRA	0	0	0	0	0.00
110	DELIVER MATERIAL		0	180	0	-180.00
120	HOLIDAY/OFFICE		0	0	0	0.00
	TOTAL HRS/EMPLOYEE	3,638	3,638	3,600		38.00

Figure 2. *Sylvestre generates a "Job Labor Report" immediately after he inputs the payroll information. The report compares estimated costs with actual costs in each of the ten task areas.*

Year-To-Date Summary

DATE: 11/18/91

JOB	JOB NAME	ADJ EST	ACTUAL COST	DIFFERENCE $	DIFFERENCE %
9101	WEST	10,950	11,047	-97.00	-1%
9102	BURGARD	13,000	12,010	990.00	8%
9103	ANDERSON	350	375	-25.00	-7%
9104	LIGHT	5,000	4,750	250.00	5%
9105	NEWMAN	40,000	41,120	-1,120.00	-3%
9106	HOEPPNER	56,000	53,304	2,696.00	5%
9107	SWANSON	3,250	3,180	70.00	2%
9108	THELEN	0	0	0.00	0%
9109	SMITH	3,638	3,600	38.00	1%
9110	WINTER	0	0	0.00	0%
9111	BERRY	1,200	1,250	-50.00	-4%
0112	WILSON	850	875	-25.00	-3%
9113	VAN ECK	650	600	50.00	8%
		$134,888	$132,111	2,777.00	2%

Figure 3. *Sylvestre totals biweekly job labor reports to produce a "Year-To-Date Summary." This gives him a running total of all job costs to date. The summary compares actual costs with adjusted estimates (updated to reflect change orders) to show how accurate the company's estimates are.*

it may be enough to simply calculate the cost of labor for each job by totaling your estimated labor costs and comparing them to your actual labor (or payroll) costs. But for most contractors, this only tells you if you're winning or losing — but it's not enough to tell you where your estimating is off course.

We've compromised by breaking our jobs into ten basic tasks:

- supervision
- preliminary site work or demolition
- framing
- exterior finish
- roofing
- insulation
- drywall
- interior finish
- cleanup
- extra

These are listed on our time cards (see Figure 1, preceding page) and correspond to task codes we've set up on the spreadsheet. We also estimate our labor based on these same tasks. We've found that limiting ourselves to ten tasks makes the numbers we get general enough to make accounting and data input easy but specific enough to provide useful information.

The Trouble With Time Cards

Until someone invents a good alternative, the time card, or actual cost input, is a key element to any labor cost accounting system. The problem with time cards is they are only as accurate as the person filling in the blank. Good field people would rather pound nails than spend their time writing about it. The simpler these cards are, the better. That means big boxes that can be filled in easily with a carpenter's pencil.

It also helps if you don't have too many categories and subcategories to fill in. Limiting ourselves to ten tasks makes it easier for our crew. For example, if a carpenter spends six hours framing a floor or a wall or a roof, it is all listed under framing. If he spends one hour finishing a door and one hour finishing a window, both are listed under interior finish.

No matter how easy you try to make it, you'll always have employees who, when asked for their time cards, will run out to the truck and fill in any numbers that sound reasonable. We try to inspire our carpenters to provide accurate information by sharing with them the job reports we generate using the time cards. During monthly meetings, we talk with our staff about how the job is progressing and explain where we need to hurry along so that we can bring the job in on budget. This way they can see how the numbers they're reporting affect each job.

Generating Reports

Once the time cards are received, the office manager manually totals them to figure the hours spent on each task for each job. We run an average of four to five jobs during each payroll period. Since our payroll is paid every two weeks, we have to account for 80 hours, plus any overtime, per crew member. This information is then entered into the Lotus spreadsheet. Here each crew member's hours are multiplied by their pay rate and totaled. Sorting the time cards and inputting this information takes less than two hours every two weeks.

The spreadsheet first lists the hours each employee spent at each job and provides a subtotal of hours and costs per job. This information is then sorted and summarized in a "Job Labor Report" (Figure 2), which comes out immediately after the payroll information has been input. This gives us the job name and number, the date of the payroll period, a list of tasks, and the following information:

- costs per task from the original estimate
- any cost changes made to the estimate
- an adjusted total including these changes
- actual costs from the time cards
- the percentage of variance between the estimate and the actual cost
- the difference between the estimate and the actual cost

In the example shown in Figure 2, we have a framing allowance of $2,089 and an actual cost to date of $1,700. Our report shows we are 19% ahead of budget which is $389 in savings. Looking down at our figures on exterior finish, we see we have exceeded our budget of $756 by 48%, bringing our actual costs up to $1,123. Clearly it's time to talk to the lead carpenter to explore ways to cut our costs.

This is where our labor cost accounting system really shines. Because the information is so timely, we can use it to make adjustments in our scheduling and budget and, hopefully, bring costs back in line before a job is completed. We can also use this report to make accurate estimates when the time comes to bid a similar job.

We give copies of these biweekly reports to our three lead carpenters as soon as they're printed. This way, they know the numbers they're working with and how they stand on their jobs.

We also have monthly meetings in the office with the lead carpen-

ters and crew where we team-review the current jobs and labor costs. This is a good opportunity to give performance feedback. With the facts in front of us, it is easier to offer praise or discuss problems. It's also a good way to hear from the field why things are costing more.

On one job that was significantly over budget, we learned that our carpenters were carrying their materials up three flights of stairs. We called the lumberyard and discovered they could lift things into the upper windows with their delivery trucks for no extra charge. We also learned that on future jobs, the more stairs we have to climb, the higher the labor estimate should be.

Our system helps us spot general trends. If we see that our framing numbers are always coming in at 10% under budget, we are able to adjust our estimates accordingly. Similarly, by comparing our figures against a subcontractor's estimate for the same job, we've found that some tasks, such as insulation and drywall, are often cheaper to sub out. This saves our crew for the tasks they perform more efficiently.

Our biweekly job labor reports are also tallied in our "Year-To-Date Summary" (see Figure 3). This gives us a total of all our job costs to date and shows us how accurately we're estimating. If we're consistently under budget, we might make ourselves a little more competitive by reducing some of our prices. If, on the other hand, our costs are running high, it's a good indication that we need to either up our prices or make some changes in our crew.

More Work Ahead

Ideally, our labor cost accounting system would include the 50 tasks we outlined when we first started work on our system seven years ago. Since that's not workable, we satisfy our longing for more detailed information by selecting one or two jobs a year to serve as study jobs. We try to pick something small and well-defined, like a $6,000 sunroom addition, and work with the carpenters who are the most enthusiastic and the most reliable about reporting their hours. We then do a specific analysis of each of the tasks performed on the job.

We create a special worksheet for this job that breaks each task into sub-tasks. Under framing, for instance, we would study how long it took to frame each square foot of floor space or each lineal foot of wall space. We enter the information into our computer and generate a separate report that serves as a study or a model for us.

Obviously we'll never know our exact labor costs on any job. But we're able to come pretty close. I'm convinced that if everyone knew exactly what their labor costs were, the numbers would be much closer in competitive bidding situations, making it fairer for everyone. That would help customers choose remodelers based on our area of expertise, rather than who has the lowest numbers. ■

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