

# The essential guide to construction job costing

As a business owner, ask yourself: do you know exactly how much money you're making on each project and why you're making that amount? Are you confident that you're bidding as aggressively as possible without risking your margin? Do you know which of your crews are most and least efficient? If you can't answer these questions, a detailed approach to job costing may be just the thing to take your business to the next level.

knowify





# CONTENT

- 01** WHAT IS JOB COSTING?
- 02** WHAT TO TRACK
- 03** HOW TO JOB COST
- 04** JOB COSTING IN KNOWIFY
- 05** CREATING BIDS THROUGH HISTORICAL PERFORMANCE
- 06** PROBLEM-SOLVING WITH JOB COSTING



Job costing has the power to transform your business. It reveals invaluable business information and unlocks the best path toward profitability. The best part is that it does this through data you already have.

You may have the feeling that your business is operating at a healthy level—but are you confident that you're doing everything possible to optimize and grow your business? Chances are you're missing opportunities to improve your bottom line.

**84%**

of firms report construction costs have been higher than anticipated

**17.5%**

increase in overall construction costs in 2021

**74%**

of contractors say they are asking skilled workers to do more work

**69%**

of owners say poor contractor performance is the single biggest reason for project underperformance

Source: [AUTODESK Construction Cloud](#)

# 01

## What is job costing?

Job costing is a method for tracking all the associated costs for a specific job. It is primarily done for two reasons:

1. To identify how much money you are making (and will make) on a particular job.
2. To better understand precisely where and when you're making or losing money.

You do this by tracking costs for a particular job at a granular level, broken down into five main categories:



With real-time cost data coming in, you'll be able to see immediate project performance, meaning you and your team can adjust your project plan on the fly to optimize profitability. Consistently tracking project costs will allow you to build a historical data set that you can reference when budgeting for future projects.

For example, looking at this data over time, you may see that you actually don't make enough money on a specific type of job. While this is valuable information, effective job costing shouldn't stop there. Digging deeper, you'll be able to see where and why you aren't making money. Perhaps it's because you're overspending on labor for a specific task. Or you may see material costs are consistently over-budget during a specific project phase.



Equipped with this information, you can uncover new opportunities to be more cost-efficient on that type of job. Or you may decide to stop bidding on those jobs altogether. By building a historical data set, you can generate better estimates, and from those estimates, you'll have a better sense of where you can reduce costs and what types of jobs you should target. In short, contractors can use job costing for better estimating, improved decision-making, and increased profitability.

# 02 What to track

## 2.1 Labor

Project profitability is highly dependent on how well labor costs are estimated and accounted for. It's also one of the trickiest aspects for a business to get right.

Costing labor begins with the following questions:

1. *Which person did the task/job?*
2. *What is their wage?*
3. *How many hours were they working?*

Answering those questions is a great starting point. But you'll need to take it further: it's crucial you account for your "all-in" labor costs by applying the appropriate labor burden. Burden costs include but are not limited to:

- FICA
- State Unemployment tax
- Health/Dental/Vision or other such benefits
- Retirement contributions
- Workers' comp

If you don't account for your total labor burden, your job costing could be off by as much as 50% when the job is all said and done. Leaving out burden is a common flaw amongst first-time job-costers. If you don't have an accurate picture of your overall labor burden, your profit on each job will appear larger than it actually is.

### *How do you go about tracking all of this information?*

To start, reference your payroll reports. There, you should be able to find not only the hourly wages you pay (which you probably already know) but also taxes, unemployment insurance, and other fees you pay via your payroll provider. Next, check your workers' compensation and health insurance plans. Those two items can be significant cost sources, and you'll want to ensure you're capturing them in your job costing. Remember: to convert an annual number into an hourly one, divide by 2050; for a monthly one, divide by 171.



### Let's work through an example:

Fred makes \$15/hr and works, on average, 40 hours a week. Given your trade, Fred's workers' comp rate is \$15 per \$100 he makes (so, 15%), and Fred's health insurance costs you \$600/month. So, while Fred's wage might suggest that he costs you \$15/hr to have working on a job, in reality, Fred's hourly cost is:

Wage	\$15.21
FICA	\$1.15
California unemployment insurance	\$0.21
Workers' compensation	\$2.25
Health insurance	\$3.51
<b>Total</b>	<b>\$22.12</b>

So, in the example above, Fred costs 50% more than just his wage! You can see why capturing labor burden in your job costing is so important.

If the above sounds like too much work, you can also use a general best practice of estimating burden at 24%-50% of wages. This percentage can range even higher; for union contractors, for example, burden rate can be as high as 60-70%.

Once you've been job costing for some time, you'll be able to analyze your labor costs across jobs to see which individuals or crews are most efficient. It may not be a general effect; instead, you may discover that specific individuals or crews are more efficient at certain jobs, leading you to change the way you schedule. Small business insights like this—and the business changes that come with them—can significantly affect your long-term profitability.

## 2.2 Materials

Factors influencing material costs include:

- Quality of materials used
- Market rates
- Supply chain costs (manufacturing, shipping, etc.)

Tracking material costs can be tricky. Most contractors who have not adopted digital solutions don't have an easy way of tracking all relevant material costs. This can lead to frustration and even stop some contractors from job costing

altogether. However, with the help of digital tools, tracking these costs becomes much more manageable. With material costs predicted to continue to increase by an average of about 4% in 2023, the need to have your finger on the pulse of your material costs has never been more critical.

Materials costs will fluctuate on a job-by-job basis for several reasons, including job size, market rates, and quality. While you can't generalize material costs across all jobs, you can use historical data to see how much you typically spend on materials for your most common type of job.

For example, let's look at a specialty contractor working with concrete. This contractor has a specific job every week with a similar scope of work with identical project details. With the regularity of this job, they can determine that material costs should be 20% of the total budget.

Given this information, they can make nuanced decisions throughout the job. If material costs for this job exceed 20%, they can make cost-saving measures in other areas; and use this information to create a better estimate for future jobs. Material costs will be particular to the type of trade and work performed. Nevertheless, tracking and evaluating materials costs is a critical piece of the puzzle when job costing.

## 2.3 Equipment

To properly account for equipment costs, business owners must record ownership and operating costs.



Taking into consideration the original cost of the equipment, estimated years of useful life, and repair costs, you can determine an annual cost rate. With this number, you can then factor in the estimated annual hours of use to calculate the equipment's estimated standard hourly rate.





## 2.4 Subcontracting

If you use subcontractors, you'll need to track these costs alongside materials and labor. Determine an estimate that you can work into a subcontractor budget for the job. It's recommended that you craft a subcontractor agreement and get signatures from all stakeholders to keep everyone on the same page and to hold everyone accountable.

## 2.5 Overhead

Overhead costs consist of costs you must pay to keep your business up and running, including rent, property tax, insurance, licenses, and permits.

*Should you include overhead costs when job costing?*

No, you shouldn't.

*The reason why?*

Overhead costs will not help you plan for the future. As a business, you're trying to understand job level margin. If you obfuscate that by adding in overhead costs, you will have no idea what impact job-level profitability is having. Think carefully about what is an overhead cost and what is a job cost. If it's a job cost such as material or labor, include it. If it's true overhead like office space that you lease, DO NOT include it in your job costing. The focus of job costing is on improving profitability on a per-job basis. Overhead costs will not help you do this.

# 03 How to job cost

## 3.1 Job costing for beginners

No matter how large or small of a project it was, at the end of the job, you can arrive at a total cost for each category of the job:

- Total cost of materials
- Total cost of labor
- Total cost of equipment
- Total cost of subcontractors
- Total miscellaneous costs

You can then use each cost to understand the overall cost of the job and compare that to the revenue you collected. From there, you can see where you made your money. Ideally, you would have determined a budget at the start of the project. Comparing costs, to revenue, to your budget will start to give you a sense of how you're performing against your expectations. You can track at this level and, at the very least, be able to tell how much money you made on that job.

The idea is to start capturing basic costs at the job level to build a historical data set to understand job profitability. The most significant advantage of this level of job costing is that it's straightforward and accessible. As you will see later, though, it will not tell you the whole story.

### *What are the limitations?*

You'll know what the numbers coming in are, but you won't know why. You will not have all the information you need to problem-solve all cost increases effectively. Especially for medium or larger-sized projects, you won't understand exactly why you went over budget. You won't understand the full story unless you get more granular with your tracking and budgeting.

While it's not required to budget at this level of job costing, it's still recommended that you develop budgets for each category. For the overall job, you will want a budget for labor, materials, equipment, subcontractors, and miscellaneous costs. If you don't start with a budget, you will have nothing to review and compare those costs against.



At more advanced levels of job costing, budgeting becomes a crucial component for problem resolution. We'll explore the role of budgeting in our section on phase-based job costing below.

## 3.2 Phase-based job costing

Phase-based job costing will start with tracking the five main categories again; only this time, you will break each job down into phases and track costs against each phase.

### *What is a phase?*

A phase is any major unit of work within the overall scope of a project. A phase will consist of various tasks that can be combined into a subcategory of work that needs to be performed. Each phase will be used as a sub-budget for the job, allowing you to get more specific with your evaluation and resolution through job costing. The idea is to treat each phase as if it were its own job.

For example, a plumbing contractor could have a job broken down into three phases: *Groundwork*, *Rough-in*, and *Trim-out*. For each phase, you can now track labor, materials, equipment, subcontractors, and miscellaneous costs. Doing so makes it much easier to identify where and why cost overages occur.

If your labor for a job came in 10% over budget, what phases caused it to come in over budget? Are you over on costs because groundwork took longer? Was it because the trim-out took longer? This is valuable information because it is doubtful that all costs went over budget across all categories (i.e., labor, materials, equipment, etc.). It's much more likely that a couple of specific aspects within a single phase caused the overall cost to come out ahead. You can then use this knowledge to make adjustments as needed as the project progresses, or more importantly, you can use this data to change how you estimate and bid on future projects that will require a similar phase. With costs broken out at each phase, you can clearly evaluate cost overruns and overall job performance while the job is underway.

This method does require significantly more time in preparation and evaluation than if you were to just track at the overall job level. As we have shown, however, you get significantly more data. Phase-based job costing allows you to dig deeper and understand exactly where you are making or losing money, especially when comparing against a predetermined budget.

Phase-based job costing is key for increasing the profitability of future jobs. For example, if you find that the demolition phase of jobs tends to have the same process and costs from job to job, you can make note of this and apply those costs to future jobs.

## Cost codes

The value of cost codes is for contractors who wish to standardize and report across jobs. Consistency in phase naming using cost codes could be very valuable, depending on your trade. Not every job broken down at the phase level will have cost codes. However, you can choose to use them if you want to get more granular or cost out similar phases across jobs.

Cost codes are a particular way to conduct phase-based job costing in which you always use the same numerical code for a certain kind of phase. For example, using the official [CSI codes](#), plumbing piping insulation will always be identified with a code of 22 07 19. You will rarely find companies using their own custom cost codes outside the official CSI codes, so if you use them, stick with the industry standard codes.

## Budgeting with phase-based job-costing

Starting with a well-thought-out budget is a crucial component of phase-based costing. Instead of using an overall total for budgeting, you will now create a budget for each phase. It's important to note that when budgeting at the phase level, you shouldn't just look to get a total cost for the phase. Instead, you should set a budget for each category within the phase. What is your budget for labor or materials in a particular phase?

Budgeting gives you a starting point for job costs from which you can apply markup that will impact your overall margin on the job. It will also give you a number to track against as you perform the job to understand your inefficiencies and whether you will make more or less money on the job than you initially thought.



# Project #1979

For Dolores Ofireland

- Summary
- Plan & Track**
- Contract & Change orders
- Documents
- Submittals
- RFIs
- Logs
- Activity
- Reports

Active mode **Project with 3 phases**

View Cost vs. Budget

	Total	Materials	Labor	Subs
Committed	\$2,603.80	\$400.00	\$1,703.80	\$500.00
Budgeted	\$16,703.00	\$3,303.00	\$12,400.00	\$1,000.00

▼ Demo
● Active
\$1,020.00 / \$4,899.00

- > Materials
\$70.00 / \$1,099.00
- > Labor
\$450.00 / \$2,800.00
- ▼ Subcontractors
\$500.00 / \$1,000.00
- > Demo, Inc.
\$500.00 / \$1,000.00

▼ Rough in
● Active
\$577.28 / \$4,804.00

- ▼ Materials
\$10.00 / \$204.00

Item description	Ordered qty.	Total	Status
1" PVC elbow	0.00 of 34.00	\$0.00	Not ordered
3/8" Wing nut	10.00 of 85.00	\$10.00	Via catalog

Create purchase
Allocate materials

- ▼ Labor
\$567.28 / \$4,600.00

Resource	Time	Total
Foreman	00:00 / 40:00	\$0.00 / \$1,800.00
Laborer	14:00 / 80:00	\$567.28 / \$2,800.00
Zach Mason	08:00	\$349.84
Emilia Howard	06:00	\$217.44

Schedule resource
Enter time

- ▼ Finish
● Pending
\$0.00 / \$7,000.00

The company has created a budget at the phase level in the above example. You can see that under the *Rough-in* phase, they budgeted \$204 for materials. They have also started job costing against it.

We can see this because they have spent a total of \$10 on  $\frac{3}{8}$  wing nuts. Since they started with a budget, they can now explicitly see how they track against their \$204 budget. We can also see they created a budget specifically for labor (\$4,600.00). As the job progresses, they have accounted for \$567.28. Again, this allows them to see how they are tracking against their budget for labor.

Starting with a budget helps us monitor spending on a job while it's underway so we can make adjustments as needed. It can also help us see if we are behind on a project. Once all phases are completed, and the job is finished, we can now go through our budget and analyze how each phase influenced the total actual cost of the project.

## WIP and job costing

By now, it's evident how invaluable job costing is for reviewing past performance, but what can you do to evaluate a job in progress? You may wonder how much you should bill your client on their next progress invoice (where applicable). One accounting concept that answers this question is Work in Progress, also known as WIP. Work-in-progress accounting, often used over long-term projects, summarizes the monetary value of work completed but not yet invoiced. You'll be able to determine if you are over or under-billing on jobs, which can help you forecast the upcoming cash flow of your company. This is another advantage of starting with a detailed budget before a job, as you can only gain value from calculating WIP if you start with a budget.

To get a WIP value to show on your project, you will need two things:

1. A fixed price contract
2. A budget cost

Both of these values are used in the WIP calculation, which is as follows:

$$\text{WIP} = \frac{\text{Actual cost}}{\text{Budget cost}} \times \text{Contract value} - \text{Billed revenue}$$

The **Actual cost** divided by **Budget cost** represents percentage of completion, so you can see how far along you are. Then we use that value multiplied by the **Contract value** to show the percentage of the contract you should be invoicing based on how much of your budget has been spent. Then, revenue that has already been billed is subtracted so that your WIP only reflects what is still owed to you. A negative WIP value shows that you have billed the client more than the percentage of completion multiplied by the contract value—this is sometimes referred to as an 'overbilling'.

# 04 Job costing in Knowify

Knowify provides construction management software for the modern contractor to be more profitable. Knowify enables more effective job costing by helping contractors understand job profitability through real-time cost tracking. Within Knowify, you can approach job costing at three levels:

**Simple**

**Advanced**

**Professional**

## 4.1 Simple job costing

The simple method requires the least amount of time and effort but comes at a slight disadvantage—you won't get the most accurate information. If you're not job costing at all, the simple method will quickly show you how to improve your business on multiple levels.



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For Dolores Ofireland

- Summary
- Plan & Track**
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Active mode **Project with 1 phase**

View Cost vs. Budget ▼ ⋮

	Total	Materials	Labor
Committed	\$2,103.80	\$400.00	\$1,703.80
Budgeted	--	--	--

🗨 📄 🗑 🔗

▼ **Labor and materials**

● Pending
\$2,103.80 / No budget

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▼ **Materials**
\$400.00 / No budget

Item description	Ordered qty.	Total	Status
1" PVC elbow	20.00	\$70.00	Via catalog
1/2 inch pipe, 125 psi WOG rating, brass stop	40.00	\$320.00	Via catalog
3/8" Wing nut	10.00	\$10.00	Via catalog

Create purchase
Allocate materials

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▼ **Labor**
\$1,703.80 / No budget

Laborer	Ordered qty.	Total
<b>Laborer</b>	<b>31:00</b> ●	<b>\$1,253.80</b> / No budget
Harrison Elliott	08:00	\$371.52 / No budget
Alex Cox	09:00	\$315.00 / No budget
Emilia Howard	06:00	\$217.44 / No budget
Zach Mason	08:00	\$349.84 / No budget
<b>Tradesman</b>	<b>15:00</b> ●	<b>\$450.00</b> / No budget
Jake Wood	08:00	\$240.00 / No budget
Jeff Espinoza	07:00	\$210.00 / No budget

Schedule resource
Enter time

Above is an example of a filled-out job costing sheet using the simple job costing method with no budget and only one phase. Below we will look at how to allocate and track labor, materials, and subcontractors in Knowify.





## Allocating materials

First, we will look at allocating material costs to a job within Knowify. There will be two options within Knowify: (1) *Create purchase* and (2) *Allocate materials*.

1. If you don't have all the items you need, you'll create purchase orders within the project for the items you need as you need them. Referencing the example on page 16, we created a purchase order to our supplier for twenty 1" PVC elbow. You can now apply the cost of this purchase order (whether or not you have paid for it) to the job. You will then see this cost reflected in the total cost of the job and reflected in the total material cost of the job. As you make additional purchase orders, the costs will be updated accordingly.
2. Choose to allocate if you already have the materials and are pulling them from a truck or warehouse. These will be items you have already purchased at some point that you are now allocating to this job. You will now apply that sunk cost against the job. For example, if you have already bought PVC (\$70) you can allocate the \$70 towards this job, and that specific material cost will be tracked against the job.

The other way we can log material costs is from the field. If your crew runs to a store to buy materials with a company card, they can log an expense directly against the job within Knowify. The benefit is that you can log costs in real-time, and you're accounting for all costs that you are applying toward the job.

## Allocating labor

For tracking labor costs against the job, start by adding your team to Knowify and assigning them a labor burden cost. Using Knowify, you can set up an account for your employees that includes their full labor burden, so that every time they check in and check out, you will be accounting for the full cost of that employee to your business. Capturing the full cost of the employee to be on that job site to your business.

Next, you'll want to assign those team members to the specific jobs you're tracking against. As your team performs their work and clocks in and out of the job site, you'll be able to see the actual cost of their labor for the job at hand. If you have your employees as users in Knowify, as they clock in and out on the mobile app, they will check in and out to the job they are assigned. As they do this, their time will be automatically logged against the job. Again looking at the example from page 16, we can see each crew member, their role, how much time they logged, and all of their time combined—31 h for laborers and 15 h for tradesmen. The additional time will be logged automatically as employees check in and out.

## Allocating subcontractor costs

If pulling in additional subcontractors for a specific task on the job, you will need to account for what they are charging you in total and what they have billed you as the project progresses. You can add the contract to the project that will essentially operate as a purchase order. The total contract amount will be logged in the project and will count toward the overall project cost. As you are billed throughout the job, you can input those payments and track those separately against the job. However, the full bill amount will be tracked toward the job whether or not you have paid the sub in full.

Looking at the example on page 16, the job is complete after allocating materials and tracking labor. We can see that we incurred \$400 in materials and \$1,703.80 in labor for a total cost of \$2,103.80. We can see the total cost and can compare that to how much we got paid. This is great, but the downside is that you have no budget to compare it against. You have already committed to the client an exact markup, and because you didn't budget ahead of time, you don't know how much profit you are projected to make at any given point.

After completing another similar job, compare previous numbers to this one. Let's say materials came out to be \$500 this time. Run through your line items and identify what might have caused this increase. You may have spent more on higher-quality materials or needed unexpected parts that increased the total cost. Whatever the cause, find it, and understand how and why it affected the total cost. By organizing, tracking, and reviewing job costing data after each job, you can start identifying trends and patterns causing your costs to increase or decrease.

## 4.2 Advanced job costing

The second level of job costing within Knowify is advanced job costing. At this level, you bid first and then track costs against each bid line item. However, unlike simple job costing, this method will break a project into phases (or stages of completion). Whether the job has a few simple or many complicated stages, you'll need to break out each phase and estimate labor and material costs for each stage. To get started with this job costing method, you'll first need to identify the phases of your job.

Again a phase is any major unit of work within the overall scope of a project. Break down your job by task, completion, or stages that will serve as your phases. Try to determine the beginning, middle, and end of the job.



# Project #1979

For Dolores Ofireland

- Summary
- Plan & Track**
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- Submittals
- RFIs
- Logs
- Activity
- Reports

Active mode **Project with 3 phases**

View Cost vs. Budget ▼ ⋮

	Total	Materials	Labor
Committed	\$2,103.80	\$400.00	\$1,703.80
Budgeted	--	--	--



<div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼ <b>Demo</b> <span>📄</span> <span>🗑️</span> <span>💬</span> <span>🔗</span></span> <span style="border: 1px solid #ccc; padding: 2px;">● Pending ▼</span> <span>\$520.00 / No budget</span> </div>									
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>&gt; <b>Materials</b></span> <span>\$70.00 / No budget</span> </div>									
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>&gt; <b>Labor</b></span> <span>\$450.00 / No budget</span> </div>									
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼ <b>Rough in</b> <span>📄</span> <span>🗑️</span> <span>💬</span> <span>🔗</span></span> <span style="border: 1px solid #ccc; padding: 2px;">● Pending ▼</span> <span>\$577.28 / No budget</span> </div>									
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼ <b>Materials</b></span> <span>\$10.00 / No budget</span> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;">Item description</th> <th style="width: 15%;">Ordered qty.</th> <th style="width: 15%;">Total</th> <th style="width: 10%;">Status</th> </tr> </thead> <tbody> <tr> <td>3/8" Wing nut</td> <td style="color: blue;">10.00</td> <td>\$10.00</td> <td style="color: blue;">Via catalog</td> </tr> </tbody> </table> <div style="display: flex; gap: 10px; margin-top: 5px;"> <span style="border: 1px solid #ccc; padding: 2px 10px;">Create purchase</span> <span style="border: 1px solid #ccc; padding: 2px 10px;">Allocate materials</span> </div>	Item description	Ordered qty.	Total	Status	3/8" Wing nut	10.00	\$10.00	Via catalog	
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3/8" Wing nut	10.00	\$10.00	Via catalog						
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼ <b>Labor</b></span> <span>\$567.28 / No budget</span> </div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 30%;">Laborer</td> <td style="width: 30%;">14:00 ●</td> <td style="width: 40%;">\$567.28 / No budget</td> </tr> <tr> <td>Zach Mason</td> <td>08:00</td> <td>\$349.84 / No budget</td> </tr> <tr> <td>Emilia Howard</td> <td>06:00</td> <td>\$217.44 / No budget</td> </tr> </tbody> </table> <div style="display: flex; gap: 10px; margin-top: 5px;"> <span style="border: 1px solid #ccc; padding: 2px 10px;">Schedule resource</span> <span style="border: 1px solid #ccc; padding: 2px 10px;">Enter time</span> </div>	Laborer	14:00 ●	\$567.28 / No budget	Zach Mason	08:00	\$349.84 / No budget	Emilia Howard	06:00	\$217.44 / No budget
Laborer	14:00 ●	\$567.28 / No budget							
Zach Mason	08:00	\$349.84 / No budget							
Emilia Howard	06:00	\$217.44 / No budget							
<div style="display: flex; justify-content: space-between; align-items: center;"> <span>▼ <b>Finish</b> <span>📄</span> <span>🗑️</span> <span>💬</span> <span>🔗</span></span> <span style="border: 1px solid #ccc; padding: 2px;">● Pending ▼</span> <span>\$1,006.52 / No budget</span> </div>									

The example above shows a project broken down into three phases—*Demo*, *Rough-in*, and *Finish*. Once you have identified and listed all the phases, list the tasks, materials, and labor for each phase. Think about what needs to be done, what you need to get it done, and who will do it.

From here, we will allocate materials costs as we did before. We will create purchase orders for the items we need as we need them. If we already have the materials, we will allocate and account for those costs at this time. If we need to purchase from a supplier, we will create a purchase order that will be automatically logged against the job, and phase that it applies to. Again it's important to note that in advanced job costing within Knowify, we will be logging costs against specific phases as opposed to the entire project.

When we create a purchase order for the *Demo* phase, we will allocate that purchase order and its associated costs to the *Demo* phase specifically. When we begin the *Rough-in* phase, we will allocate its associated materials costs separately and so and so forth. If we decide to purchase extra 3/8 wing nuts in the *Demo* phase, we will not apply that cost across all phases; instead, we will explicitly log it to the *Demo* phase. The example on page 19 shows that the *Rough-in* phase has incurred \$10 in material costs. Total material costs, however, equal \$400, meaning that the additional \$390 in material costs are being incurred in either the *Demo* phase or the *Finish* phase.

You will track labor and subcontractor costs using the same process as we did with simple job costing, only this time, you will do so per phase. Once all phases have all costs allocated, and the job is finished, you can go through each phase and analyze how each influenced the project's total cost. This allows for a more granular look at the job so you can better pinpoint where costs came in over or under budget. Reviewing this data is invaluable as you can identify and explain the how and why of cost fluctuations. Did a particular phase account for a majority of the cost of the entire project? If so, you need to analyze the costs associated with this phase to understand why. Use this information to create better bids for upcoming jobs.

## 4.3 Professional job costing

Job costing at the professional level will have you create a budget and project plan before you submit a bid. If you bid first without a budget or plan, you are essentially taking a shot in the dark and leaving it up to chance whether or not you make money on a job.

If you budget first and get your bid right before any work begins, you'll be able to enter a job with absolute confidence that you will come out profitable when the job is completed. The idea here is to measure twice and cut once. Despite this being the most advanced level of job costing, it's neither expensive nor difficult to do. This is why it's our most recommended method for growing job-level profitability.



## Breaking out into phases and budgeting

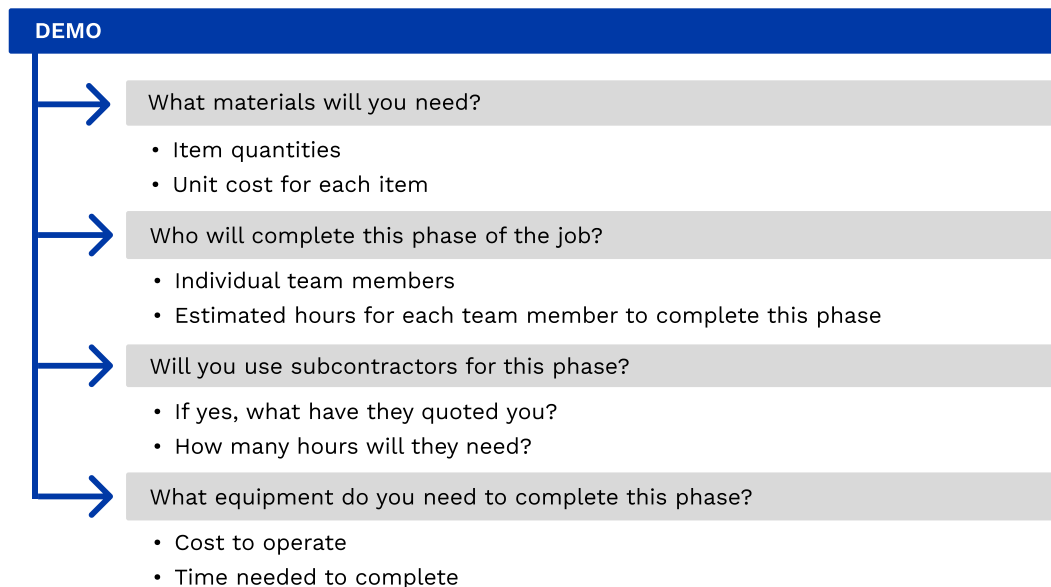
Job costing at this level will start with breaking the job into relevant phases. Plot out logistically how you are going to do this job.

*What are the major stages of completion?*

*Beginning with the first phase, what materials do you need to complete this phase?*

Looking at the example on page 19, we would determine all materials needed to complete the *Demo* phase. Once we know the materials, we will log in all item quantities and prices. These prices will go towards your project budget.

We are not job costing at this point; instead, we are creating a budget for what we believe this job will cost at each phase. Following suit, determine who from your crew will do what on each phase, and log how long you think it will take them to complete each task for each phase. Using our example project, for each phase, determine the following:



From here, you will have created a comprehensive budget for the entire project and each phase. This budget will tell you how much it will supposedly cost us to complete. This budget will also include the full labor burden (not just the pay rate) because we can add employees as users within Knowify and input all this information ahead of time. To help you determine what to estimate for each phase, you should use data from previous jobs if applicable. This can drastically improve the accuracy of your budget.

## Markup and bidding

You can now create a proposal from this budget and determine what type of contract you prefer (fixed price, cost plus, etc.). You will then see how much the project will cost you and the estimated profit. Now we can apply markup to individual items or the job. For example, you could apply a 20% markup across all materials for the job, or you can apply more precise markup percentages for each item in each phase. The choice is yours.

We have created a budget and applied markup, giving a well-crafted proposal we can send to our client. At this stage, you will know how much it will cost your client, how much you will make, and how much it will cost you to complete.

Within Knowify, you can create a proposal and send it out for approval/signature, all within the platform. Once the proposal is approved, we can now track costs against our predetermined budget.



# Project #1979

For Dolores Ofireland

- Summary
- Plan & Track**
- Contract & Change orders
- Documents
- Submittals
- RFIs
- Logs
- Activity
- Reports

**Active mode** Project with 3 phases View Cost vs. Budget ▾ ⋮

	Total	Materials	Labor	Subs
<b>Committed</b>	<b>\$2,603.80</b>	<b>\$400.00</b>	<b>\$1,703.80</b>	<b>\$500.00</b>
Budgeted	\$16,703.00	\$3,303.00	\$12,400.00	\$1,000.00

▼ **Demo** 📄 🗑️ 💬 🔗
● Active ▾ \$1,020.00 / \$4,899.00

>	<b>Materials</b>	<div style="width: 20%; background-color: #007bff; height: 5px;"></div>		\$70.00 / \$1,099.00
>	<b>Labor</b>	<div style="width: 40%; background-color: #007bff; height: 5px;"></div>		\$450.00 / \$2,800.00
▼	<b>Subcontractors</b>	<div style="width: 20%; background-color: #007bff; height: 5px;"></div>		\$500.00 / \$1,000.00
>	Demo, Inc.	<div style="width: 20%; background-color: #007bff; height: 5px;"></div>		\$500.00 / \$1,000.00

▼ **Rough in** 📄 🗑️ 💬 🔗
● Active ▾ \$577.28 / \$4,804.00

▼	<b>Materials</b>	<div style="width: 0%; background-color: #007bff; height: 5px;"></div>		\$10.00 / \$204.00																
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 40%;">Item description</th> <th style="width: 20%;">Ordered qty.</th> <th style="width: 20%;">Total</th> <th style="width: 20%;">Status</th> </tr> </thead> <tbody> <tr> <td>1" PVC elbow</td> <td style="color: #007bff;">0.00 of 34.00</td> <td style="text-align: right;">\$0.00</td> <td style="color: red;">Not ordered</td> </tr> <tr> <td>3/8" Wing nut</td> <td style="color: #007bff;">10.00 of 85.00</td> <td style="text-align: right;">\$10.00</td> <td style="color: #007bff;">Via catalog</td> </tr> </tbody> </table> <div style="display: flex; margin-top: 5px;"> <span style="border: 1px solid #ccc; padding: 2px 5px; margin-right: 5px;">Create purchase</span> <span style="border: 1px solid #ccc; padding: 2px 5px;">Allocate materials</span> </div>					Item description	Ordered qty.	Total	Status	1" PVC elbow	0.00 of 34.00	\$0.00	Not ordered	3/8" Wing nut	10.00 of 85.00	\$10.00	Via catalog				
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<table border="1" style="width: 100%; border-collapse: collapse;"> <tbody> <tr> <td style="width: 20%;">Foreman</td> <td style="width: 20%;">00:00 / 40:00</td> <td style="width: 100px;"><div style="width: 0%; background-color: #007bff; height: 5px;"></div></td> <td style="width: 100px; text-align: right;">\$0.00 / \$1,800.00</td> </tr> <tr> <td>Laborer</td> <td>14:00 / 80:00</td> <td><div style="width: 17.5%; background-color: #007bff; height: 5px;"></div></td> <td style="text-align: right;">\$567.28 / \$2,800.00</td> </tr> <tr> <td>Zach Mason</td> <td>08:00</td> <td></td> <td style="text-align: right;">\$349.84</td> </tr> <tr> <td>Emilia Howard</td> <td>06:00</td> <td></td> <td style="text-align: right;">\$217.44</td> </tr> </tbody> </table> <div style="display: flex; margin-top: 5px;"> <span style="border: 1px solid #ccc; padding: 2px 5px; margin-right: 5px;">Schedule resource</span> <span style="border: 1px solid #ccc; padding: 2px 5px;">Enter time</span> </div>					Foreman	00:00 / 40:00	<div style="width: 0%; background-color: #007bff; height: 5px;"></div>	\$0.00 / \$1,800.00	Laborer	14:00 / 80:00	<div style="width: 17.5%; background-color: #007bff; height: 5px;"></div>	\$567.28 / \$2,800.00	Zach Mason	08:00		\$349.84	Emilia Howard	06:00		\$217.44
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Zach Mason	08:00		\$349.84																	
Emilia Howard	06:00		\$217.44																	

▼ **Finish** 📄 🗑️ 💬 🔗
● Pending ▾ \$0.00 / \$7,000.00

In the example above, we see a project set up with a budget, ready for professional job costing. As we work on the job, we can assign costs to the job.

## Allocating materials

Choose to allocate or create a purchase order for the items you budgeted for. Creating a purchase order will automatically pull in the materials and associated costs for the specific phase. As before, the cost will be logged and tracked against the job and phase. However, since you started with a budget, when allocating materials, you can create a purchase order against your budgeted item, allowing you to see how this purchase order affected your budget.

In the example on page 23, you can see that we budgeted \$204 to go towards materials in the *Rough-in* phase (reflected on the right-hand side). We then created a purchase order for ten  $\frac{3}{8}$  wing nuts totaling \$10. This will automatically update within the platform, letting us know that we have now tracked \$10 against our material budget of \$204 for the *Rough-in* phase.

## Allocating labor

As your crew clocks in and out for each phase, you'll be able to see the actual cost of their labor as before, but you will now be able to see how it is tracking against your initial budget. Going back to the example on page 23, a total of \$4,600 was budgeted for labor costs in the *Rough-in* phase, and your employees have clocked in \$567.28 labor hours (including labor burden) against that budget.

## Allocating subcontractor costs

If you have budgeted for subcontractors on a specific phase, you will again need to account for the total price they are charging you and track what you have paid them as the project progresses. As before, as you are billed throughout the job, you can input those payments and track those costs separately against the relevant phase.

## Summary

Since you started with a comprehensive game plan, professional job costing means you can quickly tell when you are falling short of that plan. You won't have to wait until the end of the job to be able to tell if you are overspending. You will have real-time job costing info that you can use to make decisions faster and with more confidence, allowing you to pivot on jobs that are in progress to achieve greater profitability.



# 05

## Creating bids through historical performance

If you bid too high, you may not get the job, and if you bid too low, you can trap yourself in a job that won't turn a profit. Job costing enables you to be more accurate and aggressive with your bids and gives you greater control over the profit margin you'll make if you win the job. It also may reveal which jobs your business shouldn't be taking at all.

From consistent job costing, you'll acquire historical data across similar jobs. It's essential to review this data regularly. Did you underperform? If so, why? Did you overperform? If you did, you need to determine precisely where you could improve efficiency or cost-effectiveness to apply that approach to future jobs.

Consider using takeoff software to create more accurate budgets, further strengthening your overall bids. Using takeoff software will help calculate precise quantities, dimensions, and materials needed for a project, helping build a more robust proposal with accurate numbers to back it up. Traditionally a laborious task, it's never been easier to perform a takeoff with modern tools and resources.

# 06

## Problem-solving with job costing

### 6.1 Higher than expected labor costs and crew productivity issues

Labor cost can vary quite a bit depending on your trade or industry. A service business may see 50% or more of the total cost go toward labor, especially when accounting for labor burden costs. If labor costs affect your profitability, any time spent improving labor, whether through mentoring, training or improving productivity, will always be time well spent.

If job costing shows that you are systematically underestimating labor costs, that is a problem. Especially if you are operating with tight margins. Even a small overage in labor costs can affect your bottom line. On top of that, it's a warning sign that your bidding process is inaccurate. To address this, you need to consider a few things. First, evaluate your team's productivity and work output. If your team is consistently hitting output goals and completing projects on time and under budget, you may need to raise your bid price or cut costs elsewhere to hit your profitability goals. This scenario, however, is largely dependent on your team's ability to perform at a high rate of productivity consistently.

You can find ways to solve crew productivity issues by evaluating time cards and how that time was used on past jobs. If you break down your job into phases, you'll be able to see if your crew was utilized correctly on each task. It could be that too many people were used on one phase and not enough was used on another. Use this information to better allocate your crew for tasks that you know will require extra hands or tasks that can be done with a limited crew.

Job costing will tell you how labor productivity is tracking against your estimated budget. Using phases will tell you what task is behind or ahead of schedule. If actual work hours are above your estimate, you should increase the number of hours budgeted for that phase for future projects. If the actual hours are lower than your estimate, you should decrease the number of hours on this phase for future projects.

This is why evaluating your team's efficiency and productivity for each job is so meaningful. Never stop working on perfecting your craft, and never stop working



to bring your team up to that standard. Ensure your team, down to the person, is hitting output goals and performing at a productive and sustainable level. Job costing will allow you to set and track these goals down to the person.

While employee performance is a key factor influencing labor, managers and owners are not off the hook. Leaders must ensure they provide every resource, tool, and opportunity their team needs to succeed. This means creating employee handbooks, providing bonus opportunities, and setting standard operating procedures. Your team needs to know what is expected of them. Going even further, it's recommended to provide comprehensive training programs for new and existing employees; and then review performance regularly. Take the time to mentor your team and ensure you put them in the best possible position to succeed. As a manager or owner, you have the power to set the values of your business. Even more, you have the power to uphold those values and empower your team to develop and grow along with your business. Invest in your team, and the rewards will far outweigh the costs.

## 6.2 Estimating issues

To start, ensure you have a process for consistently estimating and pricing your jobs. Through job costing, you can see trends and patterns for similar jobs. It's crucial that you price similar jobs consistently so that you can better evaluate performance, cost overruns, and inefficiencies. An electrical contractor who often installs EV car chargers will need a consistent process for pricing those types of jobs. To make life even easier, using Knowify, you can create templates for these kinds of recurring jobs and can tweak them as needed to ensure they are accurate and specific to the job.

In contrast, if your team is tackling a job they rarely do or have never done before, it's important to take this into consideration and allow for variability in your numbers. Make note of this so you can reference it for any future jobs of this nature and accurately account for the uniqueness of the job.

To take things further, you should always track your bid-hit ratio. It's been estimated that only 6% of contractors take the time to track this number. Knowing your bid-hit ratio can be a game changer for making better choices for your business. Bid-hit ratio calculates the rate at which you successfully win jobs when bidding on projects. For example, a plumbing contractor may have a bid-hit ratio of 5:1, meaning they successfully win one job for every five projects they bid on. You can use a bid-hit ratio as an indicator of how effective your bidding process is, helping you determine what jobs to go after. This number can also provide insights into what jobs give you a higher percentage of work.



My team uses Knowify to create and send out proposals for EV car charger installations. We're able to get a professional, accurate bid created and sent to the client in less than 15 minutes, and our customers love it.

MICHAEL HAFF, CASTLE ELECTRIC



Determining the right ratio for your business, like most metrics, will depend on the specifics of your industry. A contractor who completes a high volume of jobs per year and is constantly negotiating will likely have a lower ratio. In contrast, a contractor who obtains work in the public sector will likely have a higher ratio.

### General Contractors bid-hit ratio

Public works – 10:1  
Private bid work – 6:1  
Negotiated work – 4:1

### Subcontractors bid-hit ratio

Public works – 11:1  
Private bid work – 6:1  
Negotiated work – 4:1

Source: [ForConstructionPros.com](http://ForConstructionPros.com)

A 1:1 bid hit ratio is virtually impossible, so the next best ratio would be 2:1 right? Maybe not. Regardless of your industry, if you are tracking your bid-hit ratio and seeing it consistently coming in at 2:1, this likely means you are underpricing your work. Closing on this many jobs can seem exciting since you're now booked up a year or two in advance. This means bills will be paid, and you'll stay busy doing what you love. Just be careful not to overextend yourself or overpromise. Complete as many jobs as possible to sustain a healthy cash flow, but stay within reason. Ensure you are maximizing the amount you charge on jobs while simultaneously providing the best possible quality of work.

By consistently reviewing job costing data, you should be able to create templates that you can add or remove items from as needed for individual jobs/tasks. This gives you flexibility and speeds up the time it takes to estimate a job. You'll also be able to evaluate all past jobs and understand labor costs and which crews you should schedule for tasks to increase productivity. All added up, this information will enable you to create better estimates that are accurate and achievable.

## 6.3 Higher than expected material cost

If climbing material costs are putting a strain on your business, job costing can help. Start by focusing on a project/job that you take on consistently. If you've been job costing persistently, you can look at what you have been spending on past jobs and work to identify exactly why these costs came out the way they did. Did you overspend or underspend on materials? If so, why? Did you account for things such as fluctuating market rates, leasing costs, or supply chain issues? Once you determine the 'why,' you can start thinking about setting a target spend amount. Answering these questions will help you adjust your markup as needed and give you the information you need to control costs.

If you feel you are consistently overspending on material costs, it's likely due to one of two reasons: (1) you are not accurately estimating material costs, or (2) there are flaws/inefficiencies in how you are using those materials. Determining how much of total spend should go towards material costs depends on your trade. Will a professional painter need to cost out every individual piece of tape or ounce of spackle used? Most likely not. Sundries can absolutely be tracked, but this can quickly convolute your line items and cause a time-consuming job costing process. However, you should still work to be as granular as possible. Every piece of cost data will help you make better decisions. Consider building out and using a price list. This can eliminate much of the pain and time needed for detailed material cost tracking. Be as granular as you are comfortable with, and remember that digital tools can do much detailed work for you.

With that said, if you're not hitting profitability goals and consistently notice material costs increasing, take some time to evaluate the efficiency of your business practice. Consider if you could be doing more in regard to training your crew, coaching, and setting standard procedures for efficiency. Boosting efficiency can reduce costs on several fronts and offset high material costs.

# Build your business with confidence

As an owner, you need to know where to direct your business for long-term success. You need to know the how and why of your business. The reality is that there are certain areas of every trade that are more or less competitive, and there are certain areas where you are better than the competition. Job costing will identify these areas so you can lean into them and build your business pragmatically and profitably. The best part is that getting started with job costing is simple and inexpensive. Using industry-specific software like Knowify will give you the tools you need for real-time insights into job performance and assist with budgeting for each job. It's our mission to help you grow job-level profitability. Which is what job costing is all about.

Schedule a [30-minute demo with Knowify](#) today. Seeing is believing, and we'll show you a paperless, efficient, and robust digital future for your business.

[Schedule demo](#)

knowify