



Bulletin

Other Direct Job Costs (ODJC's) and Indirect Job Costs

INTRODUCTION

What are “Indirect Job Costs”? What are “*other* direct job costs? Sounds confusing, doesn't it? Job cost is pretty straight forward, isn't it? Labor, some material, a couple of subcontracts—simple—or is it? Items like lift rental, permits, trailer rental might be obvious also, but what about hard hats, fab shop expenses, drill bits, grinding wheels, company vehicles? Are those overhead expenses? Are they the same on every project? How do you track and estimate those expenses?

These are examples of “other direct job costs” (ODJC) and a management system that accounts for and helps you identify and manage these expenses is very important to a successful business.

Accounting and financial management reference tools tell us that we should assign account numbers to these costs, but they don't offer much detail beyond that general advice. The problem is that there are many types of ODJCs, and tracking them individually, by project, could be very time consuming, require significant resources, and is not necessary.

This bulletin is intended to help identify ODJCs and provide *some* options to assist in managing and understanding these costs.

SAFETY GLASSES, GRINDING WHEELS, FAB SHOP UTILITIES – ISN'T THE COST OF THESE ITEMS OVERHEAD?

The mechanical construction costs we incur every day can be placed into one of three broad categories:

1. Selling, General and Administrative Costs (SGA, or overhead);
2. Direct job costs; and
3. Indirect job costs or, other direct job costs, if you prefer.

Although this bulletin addresses ODJCs, we must first touch on the other two categories. At the risk of over simplifying, let's start by further defining these three cost categories.

Selling, General and Administrative (SGA) Expenses

SGA expenses are those costs incurred to operate the business, even if you subcontracted all of the trade-related work. You would need management personnel, an office (rent and utilities), estimating and engineering staff, accounting staff, computer and phone systems, outside consultants, administrative staff, phones, entertainment expenses, etc.

Direct Job Costs

These items include: the pipe, valves, fittings and equipment installed; the trade labor needed to install those items; CAD/BIM labor; subcontractor costs; and the project-specific supervision needed to manage the project.

Direct Job Costs can be further sorted into four cost categories:

1. **Labor** – Typically includes wages, taxes and insurances, and fringe benefits
2. **Material** – Installed materials
3. **Equipment** – Installed equipment NOT construction equipment
4. **Subcontracts.**

Other Direct Job Costs (ODJC)

These costs include lift rentals, permits, site office expenses, drinking water, temporary toilet facilities, drug testing, welder testing, etc. Some of these items are straight-forward and included in most estimates and easily job-charged. But, many ODJCs are not obviously job-specific, or easily job-charged and include items such as small hand tools, saw blades, safety glasses, company vehicles, fabrication shop overhead and depreciation of major tools and equipment. If you believe these are job costs or overhead, consider the following:

1. Would you incur these costs if you subcontracted the work?
2. Do they vary by project type?
3. Do they vary by the mix of labor, subcontracts, material and equipment on a project?

These ODJCs are driven by type and size of project and are a cost of performing the work. You should know exactly what you are spending for them on every project.

And, you should get reimbursed for them on change order work.

General Categories of ODJCs

These include:

- **Small tools** that do not have a multi-project life, such as tape measures, screw drivers, channel locks and PPE items such as gloves, safety glasses, and hard hats.
- **Consumable items** are materials that are used up during construction. Examples include drill bits, rags, weld rods, gases, flux and saw blades.

*The MCAA's **Tool and Equipment Rental Guide** includes an extensive list of both small tools and consumables.*

- **Vehicle expense** covers depreciation, lease expense, fuel, registration, insurance, repairs and maintenance.
- **Fabrication shops** include rent, utilities, equipment depreciation, non-working supervision, testing/certification labor and materials, and small tools and consumables used in the shop.
- **CAD and BIM infrastructure costs** include computer hardware, software licenses, plotters, paper, ink, and training.
- **Job Site Office Expenses** cover trailer rentals (office and storage), phone systems, plotters, copy machines, water, coffee, etc.
- **Construction equipment** should be job charged whether owned or rented and can include items such as scaffolding, scissor lifts, cranes, and welding machines

Many companies make the mistake of including these items in overhead costs. It is easy to understand the error if you think about the different nature of projects.

Consider these three projects:

- A. An 18-month project with a large work force, full time project management and a great deal of welded pipe and shop fabrication.
- B. A six-month project with a very high percentage of the work performed by subcontractors.
- C. A three-man job lasting five days and performed by a mobile work force in company trucks.

Consider the ODJCs identified previously and then how these costs will vary by project type. Are vehicle, fabrication and CAD expenses the same for all projects? These projects will incur very different ODJCs. ODJCs are a direct result of the work and driven by the type and nature of the work; they are job specific.

Charging ODJCs

It is efficient to be able to buy and inventory many small tools and consumables and dispense them as needed. However, charging each one to a project is not practical. Likewise, you cannot charge each kilowatt of electricity used in the shop to a specific project. But, we can use job numbers or general ledger accounts (the benefits of using annual job numbers are numerous) to track and budget costs for these items.

For example, job number “13pipeshop” might have cost codes for 2013 depreciation, shop tools, utilities and even rent. The total cost of this 2013 job number would equal your shop burden – a topic tackled in other MCAA materials. Likewise, job numbers for vehicles, consumables, safety training and personal protective equipment and CAD can easily be used to budget and track these ODJCs. Later in this bulletin, we’ll discuss how to associate, or allocate, these costs to specific projects.

ODJCs, such as lift rental and job site office expenses, can be easily job-charged. Previously, we talked about four cost categories on any project—ODJCs lead us to an additional cost category, that is **5. Other Job Costs.**

Mark-ups

Can different mark-ups be used for various projects to cover ODJCs?

There are problems with using different mark-ups on different types of projects. Even if you have a good handle on ODJCs, varying mark-ups is not the preferred method to recover these costs. Instead, developing a system to job-cost ODJCs provides many benefits. Most important is that more people in your company see and understand the costs. Focusing attention on these costs will improve their management, and estimators and project managers will make better financial decisions.

The classic example is the “break-even project,” the one which the project manager (PM) points to and says, “It may be a 0% gross margin, but at least we didn’t lose money”. That “break-even” project has very different consequences if it is a subcontract-heavy job or one that uses a great deal of CAD and fabrication. Gross margin goals do not capture the true cost of the work as effectively as job-cost details that are supported by solid accounting. Think of that top project manager who watches every dollar; is he really as focused on a target gross margin as he is on the vehicle charge hitting the job because every mechanic has a truck?

Additionally, if you are involved with cost-reimbursable work or have the misfortune of ending up in a claim, you will benefit from a job cost methodology that is proven and includes as many job costs recorded at the project level as possible.

The Importance of Detailed Cost Data

ODJCs have a material impact on your bottom line. An impact that can sneak up on a company happens when it does not have a process to measure and manage these costs. For example, assume your cost for small tools and consumable items is 3.0% of labor. Assume that on average, labor costs account for 40% of your project selling price and, at year-end, your net profit is 2.5% of revenue. **In this real life example, your cost for drill bits and hard hats is 50% of your annual net profit** – that is a significant cost that should be tracked and aggressively managed. How closely do you track these costs?

Do you believe 3% of labor is high for small tools and consumables? Let's think of it in terms of a man-year. What is the cost to outfit one trades person with a fall protection harness, hard hat, safety glasses, gloves, reflective vest, hand tools, grinding wheels, tape measures, ladders, welding gases, flux, etc.? And, how many times during the year will you replace those gloves and hand tools? A union pipefitter with an hourly cost of \$70/hour who works 1800 hours carries a total annual cost of \$126,000. Three percent of that annual expense is only \$3,780, or \$73 a week. Can you outfit a trades person with all of the required PPE, small tools, and consumables required for \$73 per week? Can you recover those costs on additional or change order work? Detailed job-cost strategies help manage, reduce and recover these types of costs.

Managing and Job Charging ODJCs

Using job numbers and cost codes to collect ODJC data is very effective and even allows you to assign a PM to those jobs. This approach provides an excellent way to not only carefully manage costs—consumable expenses, shop expenses, etc.—but also allows project managers to understand the *true* cost of the work.

Job-cost data can then be compared to annual hours worked to calculate hourly cost rates for these ODJCs. These hourly

costs – otherwise known as “burden” or “allocated overhead” – can easily be job-charged based on hours worked. This process can be expanded to create various hourly costs (burden or allocated overhead) for different types of work. For example, say all of your shop labor is charged to a cost code beginning with a “5” and, at year-end, these cost codes total 20,000 hours. If the shop overhead job-cost totaled \$200,000, we can allocate a \$10 per hour cost to every hour charged against a cost code beginning with a “5.”

The following chart shows the levels of allocation used at one company and demonstrates the flexibility of hourly burden to accurately cost your projects:

Cost Codes	Hourly Allocated Overhead (Burden)
All Trades	\$2.25 (small tools /consumables)
Pipe Shop	Add \$8.00 = \$10.25 /hr
Sheet Metal Shop	Add \$14.00 = \$16.25/hr
Mobile work force (vehicles)	Add \$13.50 = \$15.25/hr
BAS techs	Add \$9.00 = \$11.25 /hr
Engineering Staff	\$8.50/hr
CAD Group	\$13.50/hr

Each of these hourly costs is associated with an overhead job and a project manager, and they are updated quarterly as those forecasted costs AND the company man-hours change. Each quarter, the forecasted pipe shop costs are divided by the forecasted shop hours which produce an updated hourly shop burden. Today's estimating, accounting and job-cost software packages make these tasks very simple.

An option preferred by some companies is to allocate some ODJCs on a dollar of cost (versus hourly) basis. For example, they may add 7.5% of every dollar of material

purchased to recover the cost of consumables such as weld rod, gases, grinding wheels etc., but the principle remains the same. This approach creates a sixth and final job-cost category; **6. Burden /Allocated Overhead.**

CONCLUSION

- The true and accurate cost of the work includes many items that vary by type of work and are difficult to job-charge.
- These costs can be significant and should be accurately measured and managed.
- Grouping these costs, budgeting and charging them to one job number that is actively managed helps to control costs.
- These costs, divided by forecasted hours, creates an easy-to-use and easy-to-manage system for identifying and managing costs.
- Applying hourly burdens to job-charged hours is an easy and effective way to allocate many ODJCs directly to projects. By job-charging these expenses, you increase exposure and attention to actual costs and, as a result, will inevitably reduce ODJCs.
- Project Costs are best separated into 6 categories:
 1. **Labor** – Direct project labor and project specific supervision
 2. **Material** – Installed materials
 3. **Equipment** – Installed equipment
 4. **Subcontracts**
 5. **Other Direct Job Costs** – large ODJCs that are easily posted to a project such as equipment rentals and permits
 6. **Burden, or Allocated Overhead** – ODJCs most efficiently managed through costs applied to each hour of labor, or dollar of project cost, such as small tools, consumables and fab shop burdens.