



CLMA® Project Labor Cost Allocation

To simplify the process of developing construction labor demand forecasts for projects which do not yet have detailed estimates, the Construction Labor Market Analyzer® includes algorithms which convert project budgets into craft labor headcount estimates. The required inputs to the algorithms include:

1. The type of project (e.g. power generation, manufacturing, refinery, etc)
2. The total installed project cost estimate
3. The forecast project construction start and completion dates
4. Distribution of crafts over the project’s lifespan. (Defaults included)
5. An estimate of the percentage of the total installed project cost that will be expended on direct construction craft wages (Defaults included)
6. Direct construction craft labor wage rates (Defaults included)

One of the challenging inputs, for which clarification is warranted, is the assumption used for the development of estimate of the percentage of the total installed project cost that will be expended on direct construction craft wages and on craft labor wage rates.

Using Traditional Work Breakdown Structures (WBS), project costs can generally be broken into the following general categories:

1. Project Management (2%)
2. Engineering (15%)
3. Owner Supplied Materials (40%)
(Equipment and Materials purchased directly by the owner)
4. Construction (40%)
5. Startup (3%)

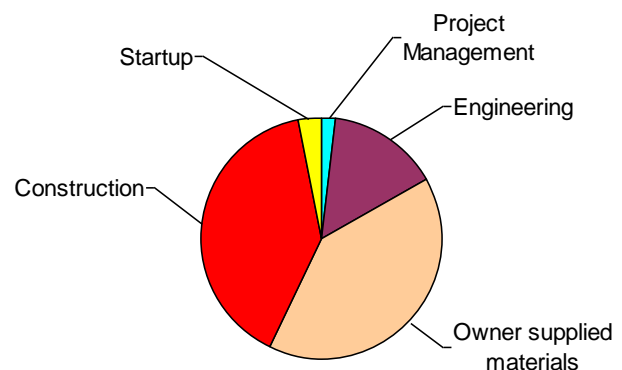


Chart 1: Estimated allocation of project costs.

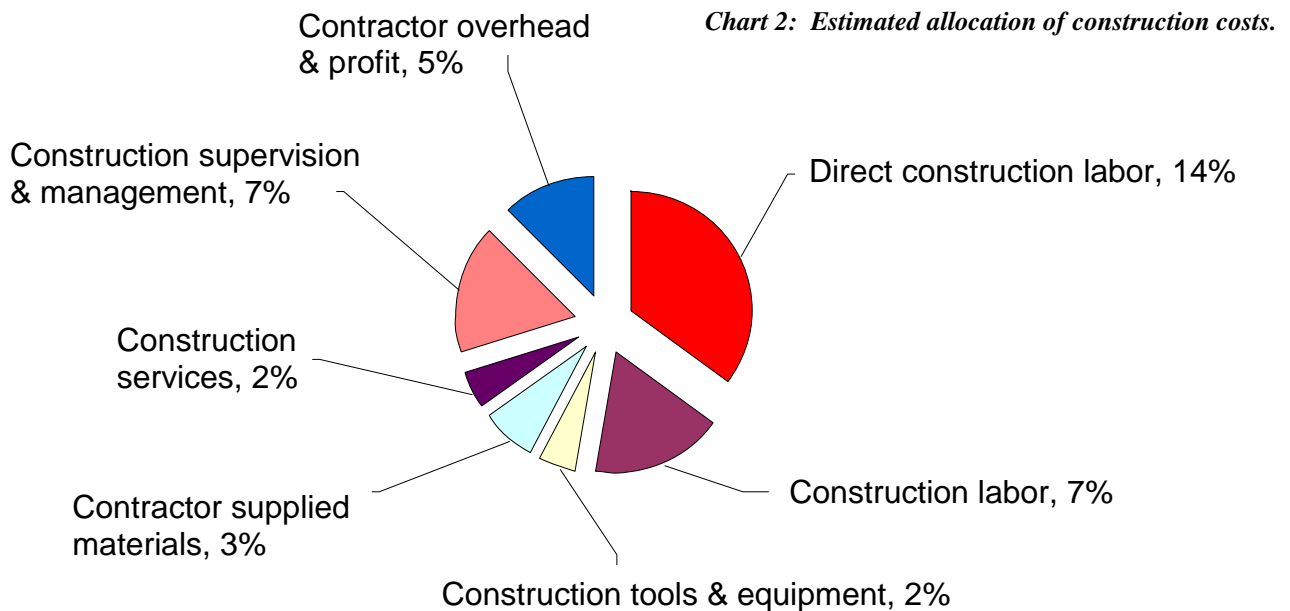
These percentages are an example only. While the allocation of project budgets vary by the nature of the project and the scope of the work to be performed, budgets can generally be allocated as shown in Chart 1.

Using this budget allocation, the *Construction* cost category includes more than just direct construction craft labor. Typical Construction cost components include:

1. Direct construction labor costs (craft wages which appear on the workers W2 forms)

2. Construction labor adds (e.g. Workers' Comp Insurance, Health & Welfare Benefits)
3. Construction tool and equipment costs
4. Contractor Supplied Materials (Equipment and materials purchased directly by the construction contractor)
5. Construction services costs (e.g. temporary facilities, gases, electrical service, water)
6. Construction supervision and management costs
7. Contractor overhead and profit

As with the overall project budgets, the allocation of these costs vary by the nature of the work and specific contractor performing the work. Assuming that total construction costs will consume about 40% of the total installed cost of the project (as shown in Chart 1 above), a typical allocation of the WBS elements related to construction costs can be allocated further as shown in Chart 2 below:



The Construction Labor Market Analyzer® is pre-populated with craft labor wage rates supplied by the U.S. Department of Labor Bureau of Labor Statistics for each state. These rates generally reflect unburdened W-2 wage rates and may or may not be applicable to your project.

Therefore, using this example which includes the BLS wage rates, you would enter 14%–20% (see Chart 2 above) as the estimated percentage of total installed project cost that would be allocated to direct construction labor costs. Conversely, if you were to change each of the craft labor wage rates to reflect the total cost of construction labor, you would enter 40% as the estimated percentage of total installed project cost that would be allocated to direct construction labor costs.

Depending on the nature of project and the scope of the work, you are free to enter the direct construction labor cost percentage that is appropriate for your specific project. You are also free to overwrite the BLS wage rates with rates that more accurately reflect your project and region. The percentages shown above are for illustration only and do not represent recommended values for any specific project.

All values entered in lieu of the default values are saved to the project and may be edited at any time.