

# Are You Developing Reliable Truss Manufacturing Labor Estimations?

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SUNAPEE, NH—Some sources estimate that we have lost 40% to 50% of the truss manufacturers in North America. If you are in the lucky group that survives you know that guessing your true cost is no longer acceptable.

This article explains current flawed methods of truss labor estimations, otherwise known as time standards. It will also provide tips and guidelines to help you develop better time estimations. So lock your door, shut the phone off and take the next 20 minutes to absorb these words. I promise that if you read and understand what is written here your chances of becoming more profitable will increase.

As part of my consulting services I have performed hundreds of hours of time and motion studies to create consistent labor estimations for truss production. I have found that most companies' labor estimations (also known as time standards) are quite frankly not very good. I think most companies are using a shotgun instead of a rifle approach when it comes to estimating labor for truss manufacturing. When you compare the estimated labor to the actual labor for a single order the results are typically all over the place. Many say this is 'good enough' when the average is taken over a given period. How can a manager say the 'good enough method' is working when his company's margins are shrinking to the bare minimum in this tight market? You know what I mean. Sales are so low that you are willing to sacrifice margin in order to get the sale.

How do you know your methods are not good enough? Well, let us look at some clear signs that indicate you may want to revise your labor estimations.

- 1) Using board footage as the main factor to determine the labor estimation.
- 2) Using piece count with an 'average' setup time per piece for setup time estimations.
- 3) Not tracking and comparing every order's estimated versus actual labor estimations and labor costs.
- 4) Trying to use production history as a means to develop proper labor estimations.

Board footage is so common in our industry that too many individuals think it is the only method that anyone should use. Let me be perfectly frank with you by saying board footage is a red herring and should never be used. Yes, I understand it is very easy number to generate and track. Yes, I understand it has been used for years by most companies (maybe even yours). But let me ask you whether you can name one production foreman who thinks production scheduling and labor efficiency works using board footage as the unit of comparison for every order. And if your response is that the 'average rate' works for you then why is your production schedule so inconsistent? Why do you want to use this 'average' rate for pricing when the margins are so tight?

Are you willing to let this mindset go and embrace a better method if it is proven to work better?

Piece count seems to be the big talked about 'new' method for truss labor estimation. It is great for feeding boards into a saw but does nothing for the setup of the saw. This flaw is especially true of the truss tables. If you are using the piece count method and there is an 'average' setup time being used to account for the setup of the table how does the shop foreman deal with the inconsistencies of the very short-run orders (1 or 2 per setup) compared to the large-run orders (10 or more per setup)? Again you will claim it is the 'average' you are looking at. Again I will repeat myself and state that this is a shotgun method when you should be using a rifle method.

I cannot repeat this enough. You need to track every order being processed in your shop! Only when you are tracking the actual time for each and every order will you know which orders are actually giving you net gains. Every order has an estimated gross margin before it is sent to be manufactured. You really do not understand the amount of the true gross margin for a particular order unless you are tracking orders individually.

Think about this concept; if you are tracking every order and understand the true gross margin for each individual order you can know the profitability of your truss shop on a daily basis instead of waiting until the end of the quarter to find out.

When it comes to tracking every order there are two methods you can use. Track the labor by hand using time sheets or use software. Either way it is well worth the expense and effort! Then once you are tracking every order you need to evaluate each and every order's labor rate efficiencies and labor costs compared to the expected labor rate and labor cost. This is really easy to do if you are using truss labor tracking software like the product I provide my clients. (See my website [http://todd-drummond.com/truss\\_shop\\_labotracker.html](http://todd-drummond.com/truss_shop_labotracker.html) for more information.)

Trying to use production history as a means to develop proper labor estimations is a flawed method for two very good reasons.

- 1) How do you derive individual elements of labor estimation from the total labor shown by recorded history? You cannot know the actual time needed to place a truss plate on a joint or set up the angle on a saw by looking at the total recorded time. You cannot get accurate figures by looking at the recorded total time for an order, single truss or even the total saw or build time for individual trusses. Only properly trained individuals who understand motion and time studies and how to produce them will provide you with proper time standards. Note that I have studied and performed hundreds of hours of time and motion studies. I know for a fact that

you can never create accurate time estimations based on history. And yes, I do provide accurate labor estimations for my clients during consultations.

2) How do you know that past labor rates for orders processed are close to what they should be? You could very well have an inefficient shop. Yes I know your shop is the best and no one can fulfill the orders better or more efficiently.

Please bear with me and allow me to give you one golden nugget of information. Time standards (man-minutes) are created for what should be done using proper manufacturing methods. Labor cost rates are based on what is actually being done. Therefore you estimate labor cost accurately based on what your manufacturing is actually doing and you create time standards based on what your labor efficiencies should be doing under normal conditions. One is labor rate efficiencies (shop efficiencies) and the other is labor cost (shop labor cost). When companies implement the lean principles provided by my consulting services there is a normal 5- to 10-point gain in net profit (points not percentage) when all the better practices are implemented. (See my website at <http://todd-drummond.com/references.html> for testimonials.)

I know what will happen in most companies after a manager reads this article. You are going to have your top designer or salesperson look at your current labor estimation. Neither of them will have any idea what motion and time studies are. They will more than likely call your plate vendor to help revise your labor estimation in the software. And that person has also never been trained in motion and time studies to help revise your labor estimations. He will run a few trusses, less than a dozen, to compare and contrast estimates versus what he thinks it should be. In the end you will get pretty much what you already have and he will claim it is perfectly good based on the 'average.'

Here are some tips for proper labor estimations (time standards):

- Understand the difference between setup, run/build and support. This is very important for grouping and categorizing the labor. How else are you going to compare how long the sawyers should take to cut the order or the builders to build the order? In other words time standards are necessary for shop efficiency!

- Understand what can and what cannot be properly measured and used for time standards. Most companies fail to understand this principle. Hint: Reliable time standards cannot be created for lumber picking but one can account for lumber picking labor costs. This can be a confusing concept but is very understandable to one who has studied the matter properly.

- If the number of individual definitions is less than a dozen you are nowhere close to being accurate on an individual truss or even the order level. An example of a single definition would be how much time it takes to place a 2x4 into the saw. I typically have an average of 25 to 30 different definitions to properly estimate the time standards.

So now you have a lot to think about concerning your current labor estimations. I made enough plugs about my labor tracking software and consulting services to let you know that I can help you resolve this serious problem but now you have to make an important decision. Answering these two questions will help: Is your truss labor estimation good enough in this market? Why not make it better?

*For more information visit [www.todd-drummond.com](http://www.todd-drummond.com), call 603.763.8857.*

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