

Benchmark of the Month



Facility Utilization and Employee Ratios

by Tony Passwater

In past articles, we examined the targets that are commonly considered for gross profit in each profit center, and we finished looking at the breakdown of each profit center regarding both revenue and expenses — all of which are very important to begin seeing where your shop needs improvement. And basically, they're all ratios and percentages a Profit and Loss Statement provides.



We now need to begin focusing on how your numbers compare to others based on what you have to produce the sales — namely your building(s) and your employees.

Why Is This Important?

First, they affect your costs as well as the ability to produce more. Without the space or people, you may not be able to produce more than you already do. And with too much space or people, your costs will be out of proportion based on your sales. For this reason, you should always be aware of your sales and costs based on what you have in space and resources.

Second, by understanding these relationships, you can plan for growth and staffing needs.

That said, we're going to examine four key ratios this article:

- Dollars per square foot (daily or monthly)
- Dollars per stall (daily or monthly)
- Stalls per technician

- Indirect versus direct staffing

Dollars Per Square Foot

Looking at this ratio allows you to compare how well you're utilizing the space you have or even how much capacity you have in terms of space. This isn't an exact science and several factors need to be considered, but it can be a useful comparison to other shops and locations.

This is especially true if comparisons are being done within the same or like markets. For instance, space in metro areas may be of premium value, hence shops tend to be smaller in size. In more rural settings or smaller cities, land is less costly so shops may be larger, but volume doesn't often increase comparatively.

I generally compare dollars produced per square foot daily rather than monthly because there's more of a chance of shops having more or less production days in a month (open/closed Saturdays) than the effect of the hours of operation during the day.

It also needs to be compared by production space and not necessarily total building. This is because often there's lots of "non-production" space possible in different locations. This just allows us to focus on how well you're producing sales in the production space you have.

We used to often see 80 percent of the total building space devoted to production space. Any more — with the critical nature of proper parts management and the increase in dual restroom facilities, lockers, training and offices — total building ratio often isn't accurate in new construction designs.

The method to calculate this sales to square foot daily ratio is:

Total Sales ÷ Total Production Space then ÷ Total Days Open

The total sales can be for month, quarter or year.

The total days open are the number of days production takes place within that month, quarter or year.

The total production space is all space where work is being (or can be) performed. This includes all stalls, frame rack space, detailing bays, spraybooths and prep stations. This also includes aisleways. Often, production space that should be counted isn't when it becomes a collector of "junk" instead of a valuable contributor to the production.

In addition, if the shop is located in a climate that allows work to be performed outside, each designated space used regularly must be counted as well. Often tents, canopies and car port spaces are left off, and the numbers are skewed for comparison. In fact, in Northern climates, if in the summer you gain production space outside, your total production space should be increased during this time period as well.

But not all space can be counted. When we worked on a project in Malaysia a few years ago, the building we had was 56,000 square feet. However, due to the nature of the claims process, we had to park vehicles inside for approval (and safety) for sometimes months at a time. This

took over 20,000 square feet. Then, along with the offices and parts department, a good 8,000 square feet was lost. These couldn't be included in production space because they had to be used for storage and office.

So what should you shoot for? We use \$1 per square foot daily as our initial benchmark for shops with single-shift production hours. However, comparing shops from metro areas such as in the Northeast to shops in the Midwest may demonstrate a huge difference.

Why? When you're faced with something that cannot be changed, you learn to deal with it or you go out of business. In the Northeast, space is normally at a premium, so you learn to schedule better, shift vehicles better and organize better. But if space and the ability to move vehicles aren't an issue, then you don't have anything forcing you to efficiently deal with them.

We've seen 7,500-square-foot shops produce more than \$3.5 million in a 250-day production year.

Doing the math:

$\$3,500,000 \div 7,500 \div 250 = \1.86 dollars per square foot daily.

This puts the \$1 benchmark to shame. But don't expect the same results. Doing this calculation properly with your numbers, you may find it difficult to exceed \$.60 per square foot daily.

Typical Shop:

$\$1,200,000 \div 10,000 \div 250 = \$.48!$

Improving this ratio is also affected by your sales closing ratio (next article) and the market volume available. It does, however, give you a good sense whether putting on a building addition is really necessary. It could also make you realize that some of the space you earmark for production could be used for some other business venture when volume increases aren't possible. Could this extra space be possible fleet work or some other form of production?

Once you begin to look at this ratio for your shop, you can see what potential you really have. In the 7,500-square-foot shop example above, extended or multiple shifts without overtime expenses cannot only push the ratio much higher, but the net profit as well. Why? The building is already there, and the utilities to run the operation are only incrementally more. This achieves an incredible facility utilization and sales with lesser costs.

To improve this ratio to begin with, work on better scheduling and planning of workflow. Remove variations with parts problems; vehicles just sitting without parts don't produce sales (more on this later in stall-to-technician ratio).

Dollars Per Stall Daily

This is very similar to the above benchmark ratio, and the key is to count every available stall or space where vehicles are regularly worked on. This does differ somewhat from square footage calculations because some building configurations simply don't allow for stalls to come out evenly. I really think this is a better representation of your potential versus square footage.

Simply count every space a vehicle can be worked on including aisleways, frame racks, booths, detailing bays and prep areas. Don't forget the outside ones, too. A typical target we use is \$500 per work bay daily.

Stalls Per Technician

This is an area where almost all shops need improvement. At least a 2:1 ratio is common. Often a metal technician has at least two work bays plus the aisle to use as well. This increases the ratio even more.

To calculate this, simply take the number of work bays (stalls) you have and divide by the number of production employees including detailers. You may need to make some adjustments if a detailer doubles at another "non-production" related job such as the janitor. The key would be, do the duties split to at least half and half?

Why does a technician need more than one work bay anyway? Can a technician actually work on two vehicles at one time? No, but with how management generally handles all the variations that take place during the repair of a vehicle, the other stall(s) become needed so techs have something to do. I've said this many times that today's management of estimating, parts and production creates roadblocks for every technician — and just kills production.

To improve in this area, you need to improve the systems for estimating, parts and production scheduling. Think of it this way: If you had a vehicle of any size job and you had *all* the parts ready for installation, why would a technician need more than one work bay and maybe a place for reassembly? This is a goal that many talk about but few have placed the correct emphasis.

How do you think a technician likes to start work on a vehicle, only to find the parts aren't there or are wrong? He then moves to another job and begins the process over again. Eventually, however, he'll have to get back on the first job and move forward with the repair. But it usually doesn't stop there; this starting and stopping may happen three to five times on the same job.

Usually high work-bay-to-technician ratios mean work volume isn't there and the shop needs more volume. This would be supported by the other two ratios mentioned before. Another common reason for the high ratio is that the administrative processes are hindering the ability of the technician to produce. Eliminate the variables, and the outcome is always predictable.

So what should you shoot for? See the next benchmark ...

Indirect Vs. Direct Staffing

Indirect staffing is defined as all management, administrative and maintenance staffing who don't work on vehicles directly. Working foremen would be considered direct staff as are all technicians, apprentices and detailers.

It's been said that a 2:1 ratio (two production) should be normal today. However, that's becoming increasingly difficult with all the administrative responsibilities that are part of any direct repair program (DRP).

Having lower-than-needed indirect staffing can cause problems as well, such as burnout on the part of estimators, parts management and front desk personnel. When reviewing shops with this problem, it usually includes either high turnover or very negative attitudes and culture within the organization. These usually translate into poor customer service and a lack of concern for company goals.

In reality, how can you expect a staff member to provide excellent customer service when he's overwhelmed with administrative duties or negative attitudes? The same is true for estimators. How can you expect his sales process to be top notch when he's under the gun to get the 200 photos uploaded with nine supplements completed by 5 p.m. and a customer walks in for an estimate? (Maybe I'm exaggerating a little, but not by much.)

The ratio also isn't as important as the actual costs associated for administrative help. Sometimes higher wages don't translate into better employees. And sometimes an extra set of hands is more important than having only one. Not all duties involved in direct or indirect staff responsibilities require the highest wages.

We've implemented a number of systems to improve the ratios listed in this article. But before we suggest any changes, we review how business is currently managed. One solution that may be appropriate for a shop to improve production, parts, work-bay-to-technician and indirect ratios is to consider a team approach in production.

For instance, designate three work bays for a technician and an apprentice. This reduces the work bay ratio down to 1.5:1 (three work bays with two direct staff members).

Then have:

- Estimators order parts through an electronic system after each job is staged and "proofed."
- The apprentice be responsible for the receiving and validation of the parts to each vehicle for his team with the supervision of their lead tech.
- Supplementals be handled by the production manager.

This in itself can lower the ratios and improve the removal of variation in the process that causes problems.

This may also allow the tradeoff from a parts manager position to an assistant CSR for data entry, photo uploads and other time-consuming duties most estimators perform.

Change Requires Change

To make any improvement requires change — and this is probably the greatest cause of failure when implementing a new system. Please consider reading some of my past articles in regard to systemization and industrialization. You can find them at our Web site at www.aeii.net/published.html or at *BodyShop Business'* Web site at www.bodyshopbusiness.com. Search past issues of *BSB* using keyword, "Passwater."

I've said it before and I'm sure I'll say it again:

If you don't measure and monitor it, you can't manage it or improve it.

If you need assistance, contact me directly, go to our Web site at <http://www.aeii.net/> or go to The BOSs at <http://www.theboss-online.com/>.

All the benchmarks we've discussed so far are achievable. Ask yourself what achieving or exceeding these target benchmarks will mean to your business and profitability.

Can you afford not to do something?

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Your feedback will assist me in providing valuable information to our industry. Please e-mail your comments and questions to Tony.Passwater@aeii.net.

Coming Next Time ...

We'll focus on ratios related to sales closing, comebacks and CSI.