

Beware of phantom savings

By Joel Levitt

People selling into the MRO field make great claims of savings. Did you ever read an article in a magazine that talked about the huge savings from this program or that new gadget? Did you ever wonder if those claims were true?



What is the issue here? If a new tool can save 10 minutes a day, that is 3650 minutes a year in a 7 day operation. The vendor can argue 60 hours of savings or \$3000 of savings at \$50 an hour. The savings is theoretical and based on a formula. This is typical phantom savings. The savings is 'good' but will never be trackable to the budget and the books.

For example: Let's consider a PM on a special unit that takes 3 hours a month and does not use materials. After looking at the data we decide the PM is too frequent and we reduce the frequency from monthly to quarterly. And let's agree there was no increase in breakdowns or adverse events. Calculations show we "saved" 24 hours a year. Where did the savings go? We say that the time is now available for other valuable maintenance activity which is true but where did it go? This is phantom savings.

If we could cut out use of a repair vendor 3 days a year as a result of this PM frequency improvement then the phantom savings would be realized (translated into real savings). If we could decrease overtime then the savings would be realized. Or if the PM used a \$25 belt each month and we dropped the usage from 12 to 4 a year we could show real savings of \$200.

Whenever I would track down the claims I would always be shown a formula (like the one above) or be given a likely story about the savings. What I wanted was a report showing the finances before the change and a report showing the after picture. The difference between the two is the savings. I could never get that from the vendors.

It turns out that almost everyone outside accounting confuses two types of savings. One type is real cost savings and the other is phantom savings. Real cost savings flow to the accounting system and appear on the books. Phantom savings like the phantom himself may appear on reports and then disappears. He is never pinned down and tracked to the companies' accounts.

Some examples of Real savings (it is important to note that not all real savings appear on maintenance budget)

- Reductions in payroll (personnel) in any area including maintenance, operations and other groups
- Non-replacement of personnel who retire or leave because we don't need them
- Reduction to overtime
- Reduction to billing from contractors and vendors
- Reductions to material used
- Reductions (only substantial reductions will result in real savings) to inventory on shelf
- Reduced expenditures for tools and equipment
- Reduced equipment rental bills
- Reduced demurrage (rental of tanks, rail cars, ships)
- Reduction to regulatory fines
- Closing a satellite facility and reduction of overhead
- Reduction of energy usage (must be large enough to be read on the meter)
- Reduced raw material usage
- Reduced number of machines needed due to increased uptime
- Reduced operator personnel needed
- Reduced compressor usage due to leaks being fixed (proven electricity savings and reduction to number of compressors)

Phantom savings

- Reduction of labor without realizing any savings
- Small reductions to energy usage
- Small reduction unit usage
- Reduced compressor usage due to leaks being fixed (unless you can prove electricity savings)

We act as if the real and phantom savings are the same. That is a trap that people trying to sell you new systems and gadgets use. They are not the same and should be presented separately. Hard numbers people (our friendly accountants) are extremely suspicious of phantom savings. Their experience shows that in the real world we rarely realize those savings. Phantom savings are nice to have but not as nice as money in the bank.

This is not to say that phantom savings are not important, they are. Phantom savings can really be used for important work. It's just that the Return on Investment will show up as a result of the work we actually do and not from the savings activity itself. It's also a guide or a pointer to real savings.

The situation of phantom savings could very well be worse than just no savings shows up on the books. Consider the impact of a major effort toward effective shop scheduling. Conservative estimates show productivity could improve by 20%.

Now most places don't implement Planning and scheduling and then lay off 20% of their people. Most places have excessive identified work (hopefully in backlog) and use the gain in productivity to accelerate the speed with which they work their way through the backlogged jobs.

Each job takes a shorter time (on the time clock). Materials, tools are available when the job starts. More jobs run smoothly. Without a layoff or reduction to overtime there no savings in maintenance costs. To makes matters worse those additional jobs will consume materials. The up tic in material usage will be real (not phantom). Improving productivity might adversely impact the maintenance materials budget.

Usually there are additional jobs added that didn't make it to backlog originally because no one had confidence that the job would ever get done (it seems particularly true for infrastructure jobs). Eventually when the backlog is reduced to a manageable level the whole plant will run better. Fewer corrective jobs will breakdown waiting for maintenance to get there. This whole process could take a number of years so that the driver's for the improvement are forgotten.

Keep your eyes peeled for all types of savings. Real savings are like gold (which you can sell immediately) while phantom savings is like gold ore (which must be processed before sale).

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