A warehouse is a complex work environment. From a distance the basic activities appear simple, yet we know that everyday operations usually are full of surprises and challenges, and as the operation grows, keeping it organized becomes more difficult. And as I have described in earlier columns, (for example Thinking differently about problem solving) one aspect of the challenge is that not only do we have many issues to address, there is always more than one way to address each issue. With all these choices, the first question for me is, “Where do I start?”

I find that managers often start with the issue identified by the person who complained the loudest, or by the one they spoke with last, or by the one who has the most power in the company structure, and when I have been in a management position, I have often chosen to start with a familiar or simple issue. Other times I started by delegating the problem, and I began still others by addressing the symptom and not the cause. Managing or juggling these priorities and options can become a time consuming management task in itself.

As a consultant, I usually have the time to study a problem or situation and consider where is the best place to start to meet the needs of the company. I appreciate being in this position because I can also easily fall into one of the traps I described that may get one problem resolved, which was good, but what is accomplished may not have been as important as working on another problem. I am fortunate to have the space and experience to observe first and think about the situation, then to obtain some performance data, and finally to study the various issues before running off to just do something. Over time I have learned that having more and better information almost always allows me to select and develop a better solution. And a key dimension to that better information comes from the measurement of performance in the area of concern.

In my earlier columns, I frequently refer to performance measurement as a key dimension in management and change for a variety of reasons: Measurement data allows us to

- Better understand the situation (for example, is the situation an exception or a trend?);
- More easily prioritize the most important issue;
- Be clear about what it is that we want to change;
- Establish a baseline for monitoring the impact of change;
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• Display the impact of changes we may implement that others can easily understand; and
• Estimate savings potential and justify investments in capital, people, time, etc.

Three elements of measurement can make the difference between success and failure: what to measure, how to display the data, and where to present the results.

Regarding what to measure, I find that it is better to start measuring almost anything in the area of concern, than to spend large amounts of time deciding where to start or attempting to obtain the best data. Measurement is not an exact science. And the results of measuring almost anything usually leads to learning something you did not know, including how to improve the collection of data, improve the accuracy of the data, create better ways to present the results that have meaning and impact for those affected, and the process becomes a subject of discussion that usually yields some new knowledge. With this experience, you can always refine the information you gather and change the way you present the information.

Regarding the display of the data, I strongly recommend presenting results of measurement in a graphical form. What we generally want is to see and understand is that performance is changing over time. A line graph with the horizontal axis showing the days of the month or 3 months and the performance of the area of concern on the vertical axis presents that change in a way we are all familiar with. An upward sloping line is usually interpreted as showing progress. A downward sloping line lets everyone know the resulting performance is getting worse. Look at your data closely and be careful of this. Sometimes the reverse is true. The graphic capabilities of Excel works well or just purchase some grid paper.

And finally, post the graphed results someplace where people will see them. Updating the graph daily or weekly, demonstrates your priority more effectively than anything you could say about the subject. It is always interesting to me to see performance graphs, employee of the month pictures, etc., in a lobby. On the one hand the message they convey demonstrates to any observer what is important here. On the other hand, when the displays have not been brought current in 6 months to a year they convey another message that is not positive.

If people whose performance contributes to these results can see them change every day or every week, and can understand how their efforts are related to the
results, we often see performance change just because we posted the performance graphic.

I have found that the most important measurement areas to start with are:

- **Productivity** (E.g., the ratio of a performance divided by a variable, - daily cases handled in the warehouse divided by the total hours worked. An upward sloping line is positive.)
- **Quality** (The number of errors found per week divided by the number of pick lines or orders shipped in that week. A downward sloping line is positive)
- **Operating Expenses** (The warehouse labor dollars per month divided by the dollar value of materials shipped. A downward sloping line is positive.)

Each of these areas presents its own opportunities for impact and challenges for measurement and presentation. I will briefly deal with each of them in upcoming articles. Meanwhile, when thinking of where to start with change, consider starting with measurement.

In the mean time, I invite you to contact me at coach@warehousecoach.com with any questions you have about performance measurement or with stories of your own experiments with measurement.