

## /// Event Savings...Fact or Fantasy?



The topic of savings resulting from Business Process Improvement has generated many worthwhile discussions. Topics such as: How do we “know” what is real and what is fluff? What is the difference between “Net” savings and “Hard” dollars? Is the use of “Cost Avoidance” legitimate? What part does Cycle Time reduction play in all of this? All of these are solid questions that deserve our consideration. Each technique has a place and all have their usefulness...as long as we agree on the definitions and the concepts as we are using them!

The most significant misunderstandings occur around the concept of "Net Savings" as utilized by the LEAN Six Sigma methodology. This single, seemingly simple, topic has generated intense discussion throughout the entire business community. This is perhaps due to an unfortunate choice of words, or a genuine lack of understanding. It can also be a smoke screen for those using passive aggression techniques to resist change. It sometimes is none of the above. What is clear is that a poor job has been done in communicating exactly what Improvement Net Savings consists of and how we can use it to our benefit as an organization and as a management team. The best way to address the issue and to clarify the concept is with a clear and concise explanation of the terms, the roles, and the ramifications for executive and line management.

### **Net Savings:**

For the purposes of Process Improvement, Net Savings are simply defined as:

The calculated savings based upon the measured delta (difference) from the baseline labor (Manual Cycle Time) and materials and supplies required at the start of an improvement event and the measured labor (Manual Cycle Time) and materials and supplies required after the process improvement event changes have been implemented. Both measurements are grounded upon hard data, measured by the people who actually do the job (often with stop watches) during the improvement event and after the changes have been fully implemented. The delta labor identified is then multiplied by the average labor rate (to include overhead, General & Administration Expenses, and benefits) for the appropriate labor category, work section, or the Work Breakdown Structure (WBS) in question. That product is then multiplied by the number of units generated, or by the number of times that action is completed by that labor category, work section, or WBS during the course of a year. Any reduction in materials required as a result of the improvement changes are also calculated and then added or subtracted to the product. Finally, the cost of the actual improvement activity is factored into the equation as well as any costs of implementing the improvements. This result is the annualized Gross Savings that have been taken out of the process by the improvement team.

**Net Savings = ((Starting Manual Cycle Time - New Process Manual Cycle Time) \* Avg. Loaded Labor Rate) \* Units per year + Delta Materials - (Cost of the Event + Cost of Implementation)**

Great care is taken to ensure that the process is measured using the same part, document, or unit of interest in both the before and after measurements. This ensures that the data derived is valid and useful for developing defensible conclusions. The ability to compare “Apples to Apples” is a critical aspect of this methodology to ensure accuracy and credibility. LEAN Six Sigma is a program with a formal structure that derives its power from fact-based decision-making. With LEAN Six Sigma, **Act On Fact** is more than just a slogan.

For example, in one organization we worked with we undertook the radical restructuring of the process required to write (or modify) a Technical Procedure for jet aircraft engine maintenance. The employees analyzed their historical workload for that work section and identified a typical PCR (Publication Change Request) that was representative of their normal average workflow 80% of the time. This document was then used to measure the baseline process, as it existed when they began the event. The process was then mapped and data was collected. The employees then restructured the process (radically as it turned out) with changes identified by and derived from the data collected during process mapping and analysis, and generated from their own ideas and experience. After the process was restructured, the same document was utilized to measure the labor and resources required utilizing the new process. The delta labor was measured and was used to identify the percentage of improvement in the new process. While every PCR will not be the same size, complexity, or arrive with the same workload conditions, the percentage of improvement for the process used to handle the test PCR *is* applicable to each and every PCR to be processed in the future.

For this example, the calculations are as follows:

**((8.2 hr. Current State - .3 hr. Future State) \* \$34) \* 1700 PCR's  
per year = \$456,620**

**Percent improvement = (8.2 hr. - .3 hr.) / 8.2 hr. = 96.34%**

The power realized in the tool set provided by LEAN Six Sigma is to be found within the solid scientific methods used and the collection of hard data. This combined with capturing the innovation and creativity provided by our employees and their expertise allows us to implement significant change in our workplace. No longer must decisions be made based upon "gut level feeling", intuition, or how we "perceive" the process to work: they should be based upon solid data and clear-cut measured results. The LEAN Six Sigma Tool set is tailor-made to make waste visible in our workplace and it provides a formal structure to facilitate change. This allows us to present the data necessary to identify and implement a sound business case for change.

### **Who's Responsible and What Are Our Options?**

The improvement Team Leader, supported by his or her team, is primarily responsible for identifying the Net Savings that are to be realized as a result of the changes implemented during every Business Improvement Event or activity. The Champions and Executives are ultimately responsible for making the decisions about what should be done with the savings identified and how they should be used to best support and optimize the organization to achieve its strategic vision and long-term goals and objectives.

It is critical to understand that Net Savings are taken out of the process and not the business. Numerous variables and countless decisions must then be made by management to determine how those Net Savings identified will be utilized and realized. For example, they can be used to purchase Capital Assets that could not have been afforded otherwise. They could be used to fund new business development opportunities that could not have been pursued without these improvements. Decisions could be made to provide the customer with additional goods and services to influence Customer Satisfaction and position the business with greater advantage for the next competition cycle or opportunity. Additional personnel could be hired utilizing the savings to address bottlenecks, problem areas, and critical shortages in other areas of the contract or business that could not have been funded otherwise. Current employees no longer needed for that particular process could be redeployed within the

workforce to address other areas in need of additional manpower or resources. Additional work could be added to the existing business or contract using personnel and resources freed as a result of the improvement, thereby resulting in additional increased sales and revenue. Last, but certainly not least, the decision could be made to flow these savings (in whole or in part) to EBIT (Earnings Before Interest and Taxes) where they are actualized on the bottom line or they can be distributed to Shareholders as Dividends.

### **Cost Avoidance:**

Cost Avoidance is another major area for discussion as it relates to savings achieved by our improvement efforts. Cost Avoidance is defined as: Improvements resulting in reducing or eliminating the future expenditure of funds to accomplish an action or activity that is now unnecessary due to the process improvement event. Saving money in this manner is just as legitimate to be captured as Net Savings as those listed above. The money saved through cost avoidance is funding that is now available to be utilized in any of the areas previously listed or as otherwise deemed appropriate by management.

Cost Avoidance can also flow to the bottom line as additional EBIT if appropriate decisions are made by management to accomplish this objective. Whether one has P&L (Profit and Loss) responsibility for a few thousand dollars in your budget or hundreds of millions, the main focus of key decision makers is options! The more options we have the better we like it! If I am driven into an expenditure of money because I have no other choice, I am not “managing” those assets; I am simply a “pass through” for those funds. If I have *choices*, then I can begin to actively manage my organization and our strategy. Realizing Cost Avoidance savings gives me the choice of where I can now spend those funds to do the most good for the organization or the customer.

### **Hard Dollar Savings:**

Data compiled for several years by the Principals of *X-Stream Leadership Group* show that, on average, approximately 15% of the Net Savings realized in the improvement activities implemented are actualized as EBIT improvements, or “Hard Dollar Savings”. The rest of the savings typically are used to fund other opportunities or address other issues as detailed in our discussion above. Some organizations actively manage their improvement activities to achieve a higher percentage driven to the bottom line; others focus more on improving customer satisfaction and achieving greater competitive advantage in the marketplace. It is critical to realize we are in business to provide whatever it is that we excel in doing, for the sole purpose of making money. In the case of Not-For Profits (NFP), they operate using the same equation but from the other side of the equal sign...they optimize and minimize costs in order to provide greater levels of service or additional products for their clientele. Both types of organizations are driven by money and operate based upon financial goals and objectives. The Board of Directors for both types of organizations needs to show significant results to ensure they drive the most efficient use of Assets and Resources. If we are not improving our Return on Invested Capital (ROIC) and decreasing our Cost of Goods Sold (or in the case of our NFP’s, increasing our Revenues in Excess of Operating Expenses), why are we engaging in this particular improvement activity? Everything we do should be driven by our desire to improve profit. In the case of our NFP’s, our ultimate goal should be to improve our ability to increase services provided for the same or less cost.

There have been legitimate questions raised about LEAN Six Sigma improvement results being used to address Wall Street concerns about the financial performance of businesses

and to validate claims for savings realized by synergy and process improvement as a result of merger and acquisition activity. Results of this nature have indeed been realized by teams and businesses. However, Wall Street Analysts are savvy enough to realize that only a small percentage of Net Savings will or even *should* fall to the bottom line. These Savings are an excellent way for your business to invest in your health and business improvement without borrowing money from other institutions. LEAN Six Sigma can play a role in driving down your Debt-to-Equity Ratio and ensuring your performance based on current business results in improving the Mission Success vital to your image as a leading organization in your market space.

### **Cycle Time Reductions:**

While the primary focus of this paper has been on Net Savings and its impact on the bottom line, two other aspects of this equation must also be understood by all participants. The reduction of Cycle Time is a critical measurement of business capability. Cycle Time is the measure of the total time it takes for a process to produce its designed result. High Cycle Times reflect poor organizational capability to deliver on time and meet schedule. Low Cycle Times reflect more flexible, customer-focused organizations. Fed Ex is an ideal example of how the reduction of Cycle Time in the package delivery business dramatically altered how we as customers view that capability. For many years, we were convinced it simply took several days for a package to be delivered across the country. As a result of Fed Ex dramatically reducing Cycle Time, we now expect a package to be delivered any place we wish to send it within two days or less. Now, even the Post Office has learned how to accomplish this previously "impossible" feat. Minimizing your Cycle Time to the greatest degree possible should always be your objective. Reductions in our Cycle Time allow us to be more flexible in meeting Customer requirements and increasing our responsiveness to their needs. LEAN Six Sigma tools are fully capable of dramatically reducing Cycle Time in a Transactional environment as well as in manufacturing organizations.

### **Customer Satisfaction:**

Possibly the factor of greatest importance is the focus on Customer Satisfaction. Improvements made to our processes not only allow us to impact our bottom line, they allow us to respond more rapidly; with greater capability; and with improved products at a lower cost to our Customer. While for the most part "intangible" and very difficult to measure, improvements made to increase Customer Satisfaction levels have a dramatic impact on our customers perception of us as a supplier of goods and services in the dynamic market place within which we compete. We make much of our Corporate Vision statements as well we should. Our Customers have expressed in no uncertain terms that they want more value, not less; lower costs, not "rate hikes"; they want improved quality, not maintenance of the "status quo". They are looking for companies that can solve their technical problems with innovative technology but more importantly, with affordability. Improvements to our processes that help us achieve this objective increase our competitive position and help us establish a meaningful discrimination factor in our market space.

### **Conclusion:**

While the term and the concept of Net Savings seems to some to be confusing, it is clear that Line Management has the dominate role in determining how Net Savings will flow to the P&L statements and how it will be utilized. Appropriate decisions are critical in every area and aspect of our business. While it is our nature as human beings to resist change and

to maintain the status quo, change is very much a part of our challenge as Leaders. Jack Welch has observed, "When the rate of change inside an institution becomes slower than the rate of change outside, the end is in sight. The only question remaining is when?"<sup>1</sup> LEAN Six Sigma can help us DRIVE change instead of simply allowing change to "drag us along".

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<sup>1</sup> Welch, John F. Jr., *Jack – Straight from the Gut*, Warner Books Inc., New York, NY, 2001.