

## **Is Six Sigma Just About the Statistics?**

Wayne R. Haggstrom, President, Sympraxis LLC

Yes – and No. From the standpoint of achieving a Six Sigma (3.4 defects per million opportunities) level with regards to a process; yes, it is about the statistics. It's about measurement. It's about making decisions based on hard, concrete, numbers. It's about reducing variation. It's about numbers and math and that tends to scare people; so let's move to the second half of the answer.

No, it's not just about the statistics. It's about a goal or destination or journey. It's about a philosophy and a belief. It's about creativity and ingenuity. It's about developing a system that works for your company or organization.

### **A Little History:**

When W. Edwards Deming and Joseph Juran proposed systems to improve quality to American manufacturers in the post WW II environment, they were basically dismissed. Post World War II America would buy virtually anything. It was prosperous. If your car broke, you could get another one. Where they found a receptive audience was in post war Japan. Japan had been ravaged by the war. Much of its industry had been destroyed and needed rebuilding. At this point "Made in Japan" did not create images of quality or reliability. The Deming and Juran philosophies were adopted and refined and had a significant impact on the world markets. Within 20 years the Japanese were known for electronics, watches, optics, photographic equipment, and automobiles. They set the pace for the Better, Faster, and Cheaper world we now live in.

We wind up in the 1980's. American industry is taking notice of how the Japanese do things. The views of Juran and Deming began appearing in American board rooms. Programs were developed and catch phrases were invented: "Quality doesn't cost, it pays"; "Zero Defects", "Quality Circles". It even infiltrated advertising as Ford boasted "Quality is Job One". They made improvements, they empowered workers with Quality Circles; but these were difficult things to sell to management.

### **So why the switch with Six Sigma?**

Why is this prized by management? The Six Sigma philosophy took the concept of variation and put it in terms management understands: dollars. In the 80's if you had 500 products with defect A and 2 with defect B, the goal was to work on the processes that caused defect A and improve it until defect A virtually disappeared. With today's philosophy we would discover that 500 products had defect A, but defect A only cost us \$.05 to fix. Defect B, although much less frequent, cost us \$1000 to fix. To have the maximum impact on the bottom line, defect B is the place to focus. Fixing defect B yields a financial impact 80 times greater than fixing defect A. Or you could say that by eliminating defect B,

rework costs would be reduced by over 98%. Tell that to management and see if their ears perk up.

### **The Bigger Picture:**

If we look at Six Sigma and put the mathematics in the background for a few minutes, what do we have? We have a structure that allows any company to develop a quality philosophy that works for the company, its culture and its employees. It's taking the parts of all the different quality philosophies and incorporating them on one model. When a company makes the decision to undertake initiatives that will lead to increased customer satisfaction, increased market share, greater profitability, reduced employee turnover, reduced operating expenses, lower rework numbers; they have begun the journey to Six Sigma.

### **What it takes to start:**

1) A plan. For Six Sigma to be a successful initiative, it needs to be integrated into the entire organization. This means incorporating its objectives as part of the organizations long term strategic plan and including the short term goals into the business plan. It takes setting your sights higher than you probably have in the past. If your vision was to be one of the top five suppliers in your field, your vision under Six Sigma thinking should be to be THE vendor of choice in your field. If, as the leader of a company, organization, or workgroup can't visualize being number one, how can you pass this on to your subordinates. The airline pilot doesn't start the trip without knowing where he is going and how he is going to get there.

2) Leadership. The journey along the Six Sigma path is difficult. It takes leadership at all levels. It takes leadership at the top level to instill the vision of near flawless execution of processes to the entire organization. It takes leadership at the management level to translate these ideas to their staff and keep them motivated during times of change. It takes leadership at the supervisory level to let the working level know that change is all right and ensures a secure future. It takes leadership at the Black Belt and Green Belt level to bring together teams comprised of individuals with different backgrounds and different objectives to come up with a solution that works for everyone. Finally, it takes individual leadership for each member of the organization to put forth their best effort to make the program and the organization successful.

3) Commitment. If you have set your sights high, the end of your journey is a long time away. If you believe Six Sigma will save your company in a week – walk away and save your self the disappointment. This journey takes commitment. The kind of commitment that comes from the belief that hard work and change will yield a more efficient, more profitable company or organization. Commitment at the highest levels will say to the organization “This is important, this is our future”. Commitment is contagious. It may not spread like wildfire or the latest rumor, but it will trickle down through an organization at its own pace.

I want to pass along a short story to illustrate these qualities. Since we only had one full bathroom in our 60 year old house, we decided to update the bathroom using a tub liner and overlays over the existing tile. The company told us that it could be accomplished in a day to a day and a half. That worked for us. On the day of the installation, one of their top installers arrived, told us of his plan and that he would stay as late as needed to finish. The man was a meticulous worker. He kept us informed of what he was doing and was more than happy to answer any questions we had. After about eight hours of non-stop work, he came to tell us that he was no longer at his best and needed to stop and finish tomorrow. In that one statement he demonstrated the qualities that can and will take his company to the head of the pack. He had a plan, but was not so attached to the plan that he became inflexible. He adjusted his plan and achieved the same outcome. He demonstrated leadership. It's never easy to go to a client and adjust a commitment, but he did it because he knew it was best for him, best for his company, and ultimately, best for us. And finally he demonstrated commitment. He was committed to performing the best job he was capable of doing, committed to performing an installation that showcased his company's product in the best light, and committed to giving us an installation we would be happy with and would last a long time. That is the story of an individual and a company on a Six Sigma journey.