

## Six Sigma

### Six Sigma Defined

Six Sigma is a set of tools that addresses problems of process variability and capability. These performance improvements lead to waste and cost reduction, increases in revenue and cash flow, improved profitability, and employee satisfaction. Six Sigma is best known for its DMAIC



process. DMAIC is an acronym that outlines an iterative set of processes and tools within the Six Sigma realm. It stands for:

- **Define** the problem or opportunity
- **Measure** the current state
- **Analyze** the data to identify sources of variation and potential improvements
- **Improve** the process by installing new or improved processes
- **Control** the process so that the improvement is sustained

Six Sigma is fundamentally a set of tools to address problems of process quality and consistency. This increase in performance and decrease in process variation leads to waste reduction and improvement in revenues, frees up cash flow, and increases profitability and employee satisfaction. Six Sigma is synonymous with the DMAIC (Define, Measure, Analyze, Improve, and Control) methodology and its associated tool kit.

### Six Sigma Applied

The DMAIC methodology provides a structured framework for solving business problems by assuring disciplined and effective process execution. It entails defining a problem precisely, measuring to bound and clarify that issue, analyzing the business process to identify the problem's root cause, improving the process by considering alternative solutions, and controlling the process through ongoing measurement to

ensure that the problem does not reoccur. Applying DMAIC can range from creating process control charts to measuring systems analysis.

Six Sigma's tools laser focus on process variability and capability. However, while Six Sigma can isolate and solve problems within a framework, it is powerless to create an alternative framework. In short, Six Sigma is much better at doing things right than at ensuring that an organization is doing the right things. Process redesign is the role of another business improvement regime. Thomas Group applies its vast body of process management knowledge, experience, and tools, including classic Six Sigma tools, to drive measurable results. Three kinds of implementations include:

- Applying Six Sigma tools to eliminate barriers in high leverage processes subject to new or existing process improvement initiatives
- Implementing Six Sigma tools within a broader process framework
- Helping with a stalled Six Sigma implementation

### Six Sigma at Thomas Group

Six Sigma power should not be misunderstood as either a silver bullet or as universally applicable. Six Sigma tools are typically one component of our available toolset that holistically generates substantial improvements for both commercial and military/government clients. At Thomas Group, we fit the Six Sigma element appropriately into a larger effort to minimize waste and frustration and maximize return on effort and investment. While we provide training as needed, we also recognize that training alone does not drive results. Our philosophy is to provide training on a pull basis once the project and personnel need is validated.

Six Sigma is highly data intensive and generally best applies to problems that are characterized by fairly high transaction volume and data fidelity sufficient to support statistical rigor.

Six Sigma tools can apply to several areas and processes but it simultaneously addresses root cause cultural barriers to integrate positive change with staying power. 