

# Six Sigma and Baldrige

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**About The Bama Companies, Inc.**

**T**he Bama Companies, Inc. supplies bakery products to some of the largest and best-known restaurant chains in the world. In 2004, Bama received the Malcolm Baldrige National Quality Award.

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**What is Six Sigma?**

Most experts define Six Sigma as a project-oriented improvement process. It's really a comprehensive system that helps you fix what's broken. It also helps you keep the good results you already have, and make them even better.

There are three different aspects of Six Sigma that are important to touch on, if briefly:

- It is a philosophy.
- It's a methodology.
- It is also a goal.

Sometimes if you read a book about Six Sigma, the book will say it's only one of the above. At Bama, we think it's all three.

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**Six Sigma as philosophy, and its relationship to Baldrige**

In terms of philosophy, Six Sigma is about focus. Some of you may know that Baldrige is about focus too. The good thing for us is that Six Sigma has made us focus on using data for better decisions so that we can achieve happier customers, and better business results. Does that sound like something Baldrige might also intend? Data-based decision making, customer focus, and focus on results are all part of the Baldrige package, and part of Six Sigma too.

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**Methodology**

Six Sigma also includes some tools that help you think better. We assume we're pretty good at thinking, at our company. I imagine people at other companies tend to believe that as well. But using Six Sigma, we have proven to ourselves over the years that we can always be a little bit better about how we think.

Six Sigma is about using the scientific method, which relies on data—on forming a hypothesis, a theory about how things work—and then using data to figure out if the hypothesis is true or not. Sound complicated? You might think you don't know anything about statistics, but you use them every day. For example, you know that if you press on the gas pedal, your car's going to go. If it doesn't go, you've indicated a problem that needs to be fixed.

This scientific method stuff is all about either fixing things that are broken or creating new things—inventions, products, and processes. The point is that the Six Sigma method helps you get the results you're after.

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**Six Sigma as a goal**

Six Sigma as defined by the Six Sigma practitioners is a lofty goal of 3.4 defects per million. I prefer to think of it as just really darned good—performance that's so

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good it shocks everyone, including you. We've been working with Six Sigma in our company for five years, and there is one part of one process that I know of that performs at the Six Sigma level. And we have a lot of processes at Bama.

**Six Sigma as a goal, continued**

So are we a Six Sigma company? We're becoming one. We're probably never going to hit this goal, though we're going to keep working at it. We're making headway. At a 2 Sigma level, you're somewhere around 300,000 per million defects. On-time airline departures, for example, are below 3 Sigma levels. Most organizations, including Bama, are between a 3 and a 4 level. And if you go from a 3 Sigma to a 4 Sigma, you've got about a tenfold improvement, which is pretty neat.

Based on data, we know we've actually gotten the following out of Six Sigma:

**Proven outcomes of Six Sigma**

- Improved customer satisfaction.
- Reduced cost of goods sold.
- Reduced operating costs
- Improved product reliability
- Inventory reductions
- Increased productivity/yield/capacity
- More successful products
- Profitability and growth

Our customers are happy because we've been able to address product issues that they were concerned about. In fact, from one project concerning a particular product, we were able to salvage a large chunk of business. We also have a stable-to-declining pricing philosophy at Bama. We tell our customers this and then we have to make it happen!

Six Sigma is a good application for making things better fast. It's helped us reduce the costs of our various operations. One of our green belts recently completed a project designed to stop us from paying our bills too early. In this way, we put \$900,000 in the bank in an instant.

We definitely have made improvements in reliability. We had reliability problems with a certain product, and that became a very large customer's number one dissatisfier. But we made improvements and they're very happy now and so are we.

We've been able to reduce inventory and make our production lines go faster. We were able to avoid spending \$20 million to expand a building and put in a new production line because we used Six Sigma to make an existing production line more efficient. Overall, Six Sigma has simply helped us become more successful.

We spent the first several years of our implementation of Six Sigma down at the bottom of the triangle in Figure 1 on the next page, working on Six Sigma projects. Six Sigma for us is a way to achieve, sustain, and maximize organizational success, and we focused on that down in the bottom of the triangle.

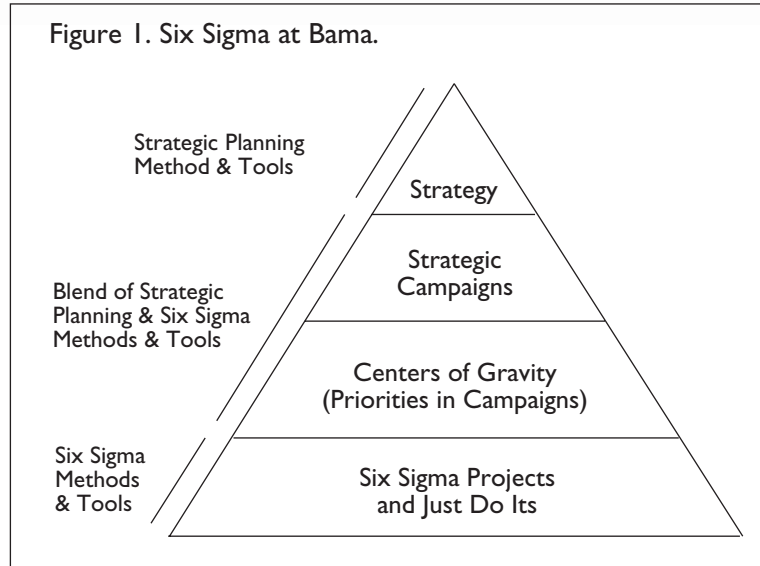
**Six Sigma at Bama**

But there was a problem. These efforts weren't very connected to our strategy. We had spent several years searching for projects for our black belts and green belts.

Six Sigma at Bama,  
continued

We had a lot of projects going on at the same time. But we finally woke up to the fact that not everybody was working on things that were really important.

What we're trying to do these days is to move the level of Six Sigma thinking up that triangle



into more of a strategic deployment. We have a strategic planning process that kicks out priorities. We use our strategic planning tools up in the top piece of the triangle. But we also blend strategic planning and Six Sigma tools and try to make one tool box for all of them, in the center two sections of the triangle. This way, we can work on the high-level strategic campaign priorities, which spin off more localized centers of gravity.

Define what you're trying to do as an organization, and then measure it. Analyze your measurements, decide what to improve, and put the control system in place. When you get to the improve stage of this five-step process—which is DMAIC: Define, Measure, Analyze, Improve, Control, then you have to decide whether you need to fix something that is broken, or to redesign and innovate instead. Using this process, we're making headway in places we never made headway before.

Changing ways of  
thinking at Bama

Six Sigma is literally a method of thinking that we are trying to integrate throughout the company. This includes getting our senior leaders to think more in this way than they ever have in the past. They're trainable. They really are! My personal goal is that we will eventually use Six Sigma thinking before we even open our mouths.

Enterprise-level  
Six Sigma and  
DMAIC

At the enterprise level, senior leaders at Bama set direction in the *Define* phase. In the *Measure* stage, we put performance measures in place so we can find out how we're doing. Then we *Analyze* those business results so that we can identify where projects need to be pulled out of instead of pushed into. In other words, we let the condition of our business tell us where we need to focus our Six Sigma resources to *Improve*. Champions are assigned to those priorities, along with black belts, or green belts, and they go to work. Our tracking system (*Control*) quantifies results, progress, and resource use. This involves ongoing monitoring that shows how the organization is doing, how well those priorities are being worked on, and so forth.

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At the campaign level, we focus on priorities, remembering that they are a direct link to the strategic planning process. Resources are assigned, and senior management team members champion these projects. A black belt is assigned to the campaign's team leaders to help ensure that Six Sigma thinking is being used.

**Campaign-level  
Six Sigma**

We also put a traffic system in place so that anybody at the click of a mouse can determine the progress of these activities.

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At the project level, we have a couple of choices. We can either fix things that are broken, with DMAIC, or invent a new solution, with DMADV (Define, Measure, Analyze, Design, Verify).

**Project-level  
Six Sigma**

The only difference is that if we're fixing something that's broken, we call it problem solving and the intent is you're going to focus on fixing something specific. If you're trying to invent something new, or redesign something, you have a much broader scope and will need some additional tools.

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Here's what you're going to need if you decide that Six Sigma is for you: You have to believe that you can do better, that things aren't perfect in your company. If you don't believe that, it may not work. You need to believe that Six Sigma is a methodology that can work for you, that if you define what you're going to work on, put a measure in place that will let you know if you're successful in fixing it, analyze the data so that you can improve the right things, and then make sure that you maintain them through repeatable processes, it will work. If you believe all these things, give Six Sigma a try.

**Beliefs necessary  
to becoming a Six  
Sigma organiza-  
tion**

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If you don't have the ability to change things in your organization, you're going to have a tough time implementing Six Sigma. Even if you do have that ability, you're going to have to start using some different tools, and start talking differently. I walked into a senior management team meeting the other day to hear managers discussing the value of a particular test in determining if a statistically significant shift had occurred. Two years before they would have been saying: "You know, I think we ought to do this," instead of using data to help them make decisions.

**Challenges to  
implementing Six  
Sigma**

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Should your company do both? Neither? If you're my competitor, I'd rather you did neither! What it really comes down to is that the Baldrige Criteria help you identify what you ought to consider working on, what the opportunities for improvement are in your particular organization. The Baldrige Criteria are absolutely great about that if you're honest with yourselves, or are seeking help from a third party to help you analyze your business.

**Six Sigma or Bal-  
drige?**

If you need help in how to fix what's wrong, try Six Sigma. It's worked for us. We have a common language in our organization that did not exist six years ago in terms of problem solving. Six Sigma is like an operating system on your computer. It's a way that things get done. It's not the only way. But it's a really good way. If you need to fix broken stuff, and need to come up with new things, and ways to answer the Baldrige questions, we think Six Sigma is what you should use.

**About the author**

Mike Frihart, Six Sigma Black Belt at The Bama Companies, Inc., has been involved with Bama's business improvement efforts since joining the company in 1991 as manager of quality systems. Four years ago, he joined Bama's Six Sigma efforts. He has been trained as a Black Belt in Design for Six Sigma and is currently pursuing his Master Black Belt. Frihart's Black Belt role currently includes training, managing projects to either fix processes that are broken or to invent new processes, and working at the strategic level to help Bama integrate Six Sigma thinking with how it does business.

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