



The Lighthouse
January 2007
Elyria/Lorain Section 814
Mission Statement



*To advance community and member quality excellence through educational opportunities,
 non-competitive information exchange, networking, forming alliances and leadership growth*

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Meeting January 23rd

WHAT:	LeanSigma® - The Integration of Lean and Six Sigma by Bonnie Smith
WHEN:	Tuesday, January 23rd, 2007, Meeting starts at 6:00PM
WHERE:	Holiday Inn, Elyria See Map Here

Bonnie Smith is Managing Director, LeanSigma® Quality Improvement for TBM Consulting Group, Inc., and a master black belt with more than a decade's experience transforming industry. Bonnie played a pivotal role in creating the synthesis of lean and Six Sigma tools that is LeanSigma, and she is currently responsible for LeanSigma's deployment worldwide.

A graduate of United States Military Academy at West Point, Bonnie is recognized as a dynamic speaker who presents to packed rooms at meetings such as the American Society of Quality's Annual Conference, ASQ Round Tables and the Institute for International Research. Bonnie has worked closely with companies such as Applica Products Corp., Kaiser Aluminum and Pella Corporation, where she has a proven track record of results. She was responsible for implementing both lean manufacturing and Six Sigma at GE Aircraft Engines and, as Director of Total Quality Management, at York International. Her last role was as a plant manager implementing lean and Six Sigma methodologies at York.



LeanSigma® - The Integration of Lean and Six Sigma

Description

Many companies are now beginning to combine six sigma and lean manufacturing principles with astounding results. For most of these companies, kaizen breakthrough is already well established as the predominant tool used to implement lean manufacturing. This approach has many appealing aspects: cross-functional teams develop more well-rounded solutions, the bias-for-action breaks inertia and gets things done quickly, and real results are generated in 6 weeks. This methodology is a key tool used in LeanSigma in order to generate results faster with extensive team involvement.

The case study presented will demonstrate, in depth, how this innovative kaizen approach is used in a LeanSigma improvement project. This case study will also show how the application of the LeanSigma tools improves the bottom line in the fraction of the time of previous methods.

Objectives/Take-aways

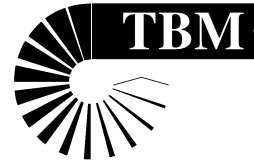
- ❖ how two improvement methodologies have been successfully combined
- ❖ how Kaizen Breakthrough Methodology is used in the implementation of LeanSigma projects
- ❖ the magnitude of results in a short period of time

TBM Consulting Group, Inc. has been instrumental in bringing lean business principles to the United States, Europe and South America over the past decade. From its Connecticut beginnings, TBM has branched out to include offices in Brazil, England, France, Mexico and Switzerland, while growing at a rate of about 30 percent annually. Profiled in several publications, TBM has been credited with turning around dozens of companies worldwide from the manufacturing and service sectors.

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TBM Consulting Group
 Transforming Enterprises for Increased Responsiveness



CERTIFICATION CLASS CALENDAR

Classes are always offered in conjunction with the certification and require a minimum of 6 students.
 If less that 6 students register for a class it may be canceled.

YOU NEED TO CONTACT Michael.Haessly@adelphia.net NOT LCCC to register for classes

Exam Date		March 3, 2007	June 2, 2007	October 20, 2007	December 1, 2007
Registration Date		January 19, 2007	April 6, 2007	August 17, 2007	October 5, 2007
CBA	Biomedical Auditor	X		X	
CCT	Calibration Technician		X		X
CHA	HACCP Auditor -	X		X	
CMQ/OE	Quality Manager	X		X	
CQA	Quality Auditor		X		X
CQE	Quality Engineer		X		X
CQI	Quality Inspector	X		X	
CQIA	Quality Improvement Associate		X		X
CQPA	Quality Process Analyst		X		X
CQT	Quality Technician	X		X	
CRE	Reliability Engineer	X		X	
CSQE	Software Quality Engineer		X		X
CSSBB	Six Sigma Black Belt	X		X	
SSGB	Six Sigma Green Belt		X		X

Chair's Message

I would like to wish you happy holidays and prosperous new year, full of joy and all things good from all of us on your Section Executive Committee. Here is the information on upcoming meetings and events:

January 23, 2007 (Tuesday) section 0814 monthly meeting at Holiday Inn, we will be having a speaker on Lean and Six Sigma, February 6, 2007, We will have our February monthly meeting at the Westlake Library, with a speaker on how to use the reference area via computer, with some actual hands on experience (details will be in Feb. Newsletter)

Other news is that we are working with the Technology Department at Lorain CCC. to adjust the Quality Assurance programs to reflect the current directions in quality and better prepare the students to enter the quality area.

New Section Members

Please welcome the following new members to Section 0814.

David E. Cromwell
Victoria A. Miller

Thomas J. Moses
Steven E. Wichman

Carol J. Pierce
Tracey A. Arkey

Tech Corner

Skewness

From Wikipedia, the free encyclopedia

In [probability theory](#) and [statistics](#), **skewness** is a measure of the asymmetry of the [probability distribution](#) of a [real-valued random variable](#). Roughly speaking, a distribution has positive skew (right-skewed) if the right (higher value) tail is longer or fatter and negative skew (left-skewed) if the left (lower value) tail is longer or fatter. The two are often confused, since most of the mass of a right (or left) skewed distribution is to the left (or right) of its respective tail.

Skewness, the third [standardized moment](#), is written as γ_1 and defined as

$$\gamma_1 = \frac{\mu_3}{\sigma^3},$$

where μ_3 is the third [moment about the mean](#) and σ is the [standard deviation](#). Equivalently, skewness can be defined as the ratio of the third [cumulant](#) κ_3 and the third power of the square root of the second cumulant κ_2 :

$$\gamma_1 = \frac{\kappa_3}{\kappa_2^{3/2}}.$$

This is analogous to the definition of [kurtosis](#), which is expressed as the fourth cumulant divided by the fourth power of the square root of the second cumulant.

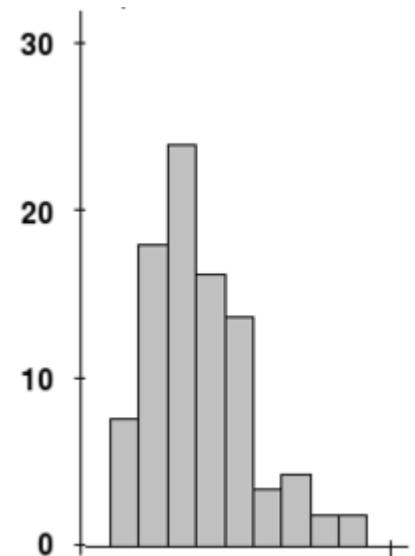
For a sample of n values the *sample skewness* is

$$g_1 = \frac{m_3}{m_2^{3/2}} = \frac{\sqrt{n} \sum_{i=1}^n (x_i - \bar{x})^3}{(\sum_{i=1}^n (x_i - \bar{x})^2)^{3/2}},$$

where x_i is the i^{th} value, \bar{x} is the [sample mean](#), m_3 is the sample third [central moment](#), and m_2 is the [sample variance](#).

Given samples from a population, the equation for the sample skewness g_1 above is a [biased estimator](#) of the population skewness. The usual estimator of skewness is

$$G_1 = \frac{k_3}{k_2^{3/2}} = \frac{\sqrt{n(n-1)}}{n-2} g_1,$$



where k_3 is the unique symmetric unbiased estimator of the third cumulant and k_2 is the symmetric unbiased estimator of the second cumulant. Unfortunately G_1 is, nevertheless, generally biased. Its expected value can even have the opposite sign from the true skewness.

The skewness of a random variable X is sometimes denoted $\text{Skew}[X]$. If Y is the sum of n [independent](#) random variables, all with the same distribution as X , then it can be shown that $\text{Skew}[Y] = \text{Skew}[X] / \sqrt{n}$.

Skewness has benefits in many areas. Many simplistic models assume normal distribution i.e. data is symmetric about the mean. But in reality, data points are not perfectly symmetric. So, an understanding of the skewness of the dataset indicates whether deviations from the mean are going to be positive or negative.

Message from the Editor

This newsletter is our method for informing you, the members of Section 0814, on meetings, plant tours, educational opportunities and other valuable information to you as Quality professionals. We hope that this information is useful and relevant to your daily activities both professionally at work and personally at home. In addition, attending the meetings, plant tours, and classes will earn you recertification units (RU's) to help maintain your certifications.

To make this newsletter more useful to you we would like your input on how to improve it. In addition to your suggestions we would also like give you the opportunity to publish some of your experiences or knowledge to the other members of the section. Please send your suggestions to michael.haessly@adelphia.net

If you would like to opt out of receiving this e-mail please update your profile on the ASQ website as such. If this is the first time that you have received this newsletter then you need to opt in to receiving e-mails and also need to update your profile on the ASQ website.

Publish with Quality Press

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ASQ Quality Press is looking for future authors to develop and expand upon the publishing division of the largest and most renowned quality organization. We welcome proposals on all quality-related topics, and are actively recruiting authors with book proposals specifically related to Service Quality and Six Sigma Green Belts.

To enjoy the prestige and recognition of publishing your book with Quality Press, submit your proposal today. Visit <http://qualitypress.asq.org/author/acquisition.html> to learn about our proposal guidelines. Or contact the Quality Press acquisitions editor, Annemieke Hytinen, via e-mail at: ahytinen@asq.org

Statistics Humor

Lousy QA jobs

When you have had one of those TAKE THIS JOB AND SHOVE IT days, try this:

On your way home after work, stop at your pharmacy and go to the section where they have thermometers. You will need to purchase a rectal thermometer made by *Q-Tip. Be very sure that you get this brand. When you get home, lock your doors, draw the drapes, and disconnect the phone so you will not be disturbed during your therapy.

Change to very comfortable clothing, such as a sweat suit, and lie down on your bed. Open the package containing the thermometer and remove the thermometer and carefully place it on the bedside table so that it will not become chipped or broken.

Take the written material that accompanies the thermometer and as you read it you will notice in small print the statement that: *every rectal thermometer made by Q-Tip is PERSONALLY tested.*

Now close your eyes and say out loud five times, "I am so glad that I do not work in quality control at the Q-Tip Company."

Japanese Quality (From an article in The (Toronto) Globe and Mail:)

Mr. Jones related an incident from "some time back" when IBM Canada Ltd. of Markham, Ont., ordered some parts from a new supplier in Japan. The company noted in its order that acceptable quality allowed for 1.5 per cent defects (a fairly high standard in North America at the time).

The Japanese sent the order, with a few parts packaged separately in plastic. The accompanying letter said: "We don't know why you want 1.5 per cent defective parts, but for your convenience, we've packed them separately."

Executive Committee

Position	Name	e-mail
Chair/Recertification Chair	Thomas Copeland	tccopeland@adelphia.net
Vice/Chair, Health Care Chair	Kim Shumyla	kshumyla@lifeshare.cc
Program Chair	Marc Kelemen	nanomarc@wowway.com
Education Chair	Michael Haessly	michael.haessly@adelphia.net
Audit Chair,	Susan Svec	SusanL.Svec@energizer.com
SMP Chair	Mike Raftery	mraftery@elyriamfg.com
Membership Chair	George Ingmand	gingmand@cox.net
Secretary	Barbara Hallenburg	bhallenburg@lifeshare.cc
Treasurer	Mark Murphy	Mark.murphy@sunmed.com
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Internet Liaison	Michael Haessly	michael.haessly@adelphia.net

Volume 9, Issue 1
January 2007



ASQ

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MEETING: Tuesday January 23rd, 2006