

# Amigo Quality

### Volume 37 Number 6

Welcome to the March 2017 issue of the Newsletter, your local provider of information and learning opportunities related to quality professionals.

#### **Membership Meeting**

DATE: Wednesday, March 15, 2017

SCHEDULED TIME: 6:30 P.M to 8:00 PM

**LOCATION**: Conference Room at the Holiday Inn Express – Downtown

409 E Missouri Ave, El Paso, TX 79901

#### **Leadership Council Meeting**

Saturday, April 8, 2017 from 9:00 AM - 11:00 AM

United Blood Services: 424 S. Mesa Hills Dr. El Paso, TX 79912

Program: "What distinguishes Lean from other process improvement

methodologies? .... And what problems does that generate?

**Speaker Bio:** Mr. Wilson received his B.S. in Chemical Engineering from

Washington State University where he graduated with Honors. His background includes 20 years in manufacturing management with an international oil company. During this time, he held management positions in process engineering,

designs engineering, production and maintenance.

In 1990 he started Quality Consultants whose clients include firms in manufacturing as well as the fields of education, healthcare and other service sector businesses. Quality Consultants serves small firms as well as Fortune 500 firms in both the U. S. and Mexico.

Mr. Wilson is an expert in Lean Manufacturing techniques including the implementation of the Toyota Production System. He not only instructs management professionals in the applications of these lean techniques; he is an on-the-floor-implementation professional.

In addition he is a Six Sigma instructor and a Certified Master Black Belt. He has developed and taught classes in a wide

variety of topics including many statistical tools such as DOE, SPC MSA and human relations skills such as Advanced Facilitation, Policy Deployment and Team Based Problem Solving, to name a few. Also, on a volunteer basis Mr. Wilson uses these same skills to assist Churches and non-profits in meeting their goals.

In addition to his consulting practice, Mr. Wilson has taught for the El Paso Community College and the University of Texas at El Paso. Mr. Wilson was an active Senior Member of ASQ and also served as past Chairman of our chapter's Education committee.

### **THE CHAIR SPEAKS**

Sergio R. Vega

Greetings to all our Quality Professionals! Last month, those of us that "ventured" into visiting the International Paper corrugated manufacturing facility in Juarez, Mexico, had a very good positive experience. After a few "detours" on the northeast part of the city we were able to get everyone there and back to El Paso without any problems. We appreciate the kind words and feedback received from most of our members and guests.

This month we invited Mr. Lonnie Wilson to be our guest speaker and his topic is "What distinguishes Lean from other process improvement methodologies? .... And what problems does that generate?" Mr. Wilson has been a guest speaker with our chapter before and he brings a wealth of knowledge and experience in Lean Manufacturing. We are also already looking into the possibility of touring either an El Paso Wastewater Treatment Plant, and/or the El Paso Electric Power Plant later on during the year. Please stand by for more information as soon as this has been confirmed.

As always, I once again, ask you to please promote our local ASQ chapter to as many people as possible to co-workers, friends, relatives, etc. Thank you very much!

Hope to see you all on Mar. 15!

Sincerely yours, Sergio R. Vega

## AUTOMOTIVE SECTION HECTOR LUGO

Thanks to all members providing their input to this section, and the winner is: the economics of electric vehicles seems less than sound>
Consider that, in Southern California, it can be cheaper to lease a Fiat 500e for three years than to lease a working smartphone.

The Fiat 500e -- the car Fiat Chrysler CEO Sergio Marchionne once told consumers not to buy because he lost \$14,000 on each sale -- was being advertised widely in Southern California last month for as little as \$69 per month for a 36-month lease, with no money down.

The Fiat 500e has changed little since its introduction in the summer of 2013, even as other automakers have upped the capabilities of their electric offerings. For example, the 500e's 84-mile EPA estimated range on a full charge is now dwarfed by competitors such as the Chevy Bolt, with a 238-mile estimated range.

See you at the meeting!

## EDUCATION SECTION KIM PRIES

What is a Fermi Problem or Question? Perhaps an example would serve best:

Q: What is the population of Texas?

A: I happen to know we have roughly 5 million students in Texas Assume two siblings (yes, I know some will be in school), which gives us another 10 million people.

Assume two parents (yes, I know about divorce), which gives us another 10 million people.

We now have 25 million people—the actual population of Texas is 27.7 million. Not Bad!

These questions drive problem solving rather than the mindless procedural techniques often seen in schools and some workplaces. Enrico Fermi (Nobel in physics at age 37!) was well known for asking his students questions of this kind. Initially, they doubted they could come up with a solution, but often, they could.

A good resource for Fermi questions is *Guesstimation* and *Guesstimation 2.0*, both by physicist (!) Lawrence Weinstein of Old Dominion University. Fermi Questions are a good resource when you want to shake things up during training or as a prelude to a brainstorming session. Your goal should be to get rid of the "blah" and stereotypical solutions often posited by team members. By the way, nothing says these problems must be solved individually—they are candidates for teamwork.

So, how many credit cards do people in the United States carry? How about across the planet?

Check it out!

## MANAGEMENT SYSTEMS

ALFONSO ENRIQUEZ

### On Desirability

The , *Quality Progress*, December 2016 issue contains an interesting article by Douglas Ray¹ on the application of DOE to find the best levels for 9 factors in order to optimize the time to failure of a vehicle coating, using only 22 runs. It grabbed my attention in that figure 2 presents an index called "desirability."

I went to my book on DOE by Montgomery<sup>2</sup> and found the explanation of the desirability function in page 496 applied to a multiple response case. Montgomery presents a case with 2 independent variables  $(x_1 \text{ and } x_2)$  and three dependent variables $(y_1, y_2, y_3)$ . It is a multivariate analysis case; however, the purpose was to discover the best levels of the factors  $(x_1, x_2)$  which correspond to a Response Surface Methodology.

NIST<sup>3</sup> describes:

The desirability function approach is one of the most widely used methods in industry for the optimization of multiple response processes. It is based on the idea that the 'quality' of a product or process that has multiple quality characteristics, with one of them outside of some 'desired' limits, is completely unacceptable. The method finds operating conditions x that provide the "most desirable" response values.

It seems that Douglas Ray used the JMP software to include desirability in his experiment; there is also a desirability package in the software of R by Kuhn<sup>4</sup>.

- 1. Douglas Ray, "On the cutting Edge", *Quality Progress*, ASQ December 2016.
- 2. Montgomery D.C. Design and Analysis of Experiments. Wiley, Eighth International Student Edition.
- 3. http://www.itl.nist.gov/div898/handbook/pri/section5/pri5322.htm
- 4. Kuhn Max, "The Desirability Package." CRAN R, 2016.

### **RE-CERTIFYING AND ASQ CERTIFICATIONS**

STEVEN SCHAFER

Out of a total of 10 member(s) whose certifications expired June 2016, 2 lost their certifications.

Out of a total of 7 member(s) whose certifications expired December 2016, 3 will lose their certifications if they do not re-certify by the end of June 2017, 0 member(s) re-certifications are being processed and 4 member(s) completed their re-certifications.

Out of a total of 9 member(s) whose certifications will expire June 2017, 9 will lose their certifications if they do not re-certify by the end of December 2017, 0 member(s) re-certifications are being processed and 0 member(s) completed their re-certifications.

**Members can re-certify early!** As long as you have enough points you can re-certify as early as six months before your certification expires.

Your Certifications will be extended 3 years beyond the certification expiration date you currently have for your certification, so you don't lose anything by re-certifying early. Remember, you can only claim points that you have accumulated up to the time you submit and these points need to be collected during your 3 year certification period.

Out of a total of 10 member(s) whose certifications will expire December 2017, 10 will lose their certifications if they do not re-certify by the end of June 2018, 0 member(s) re-certifications are being processed and 0 member(s) completed their re-certifications.

If anyone has questions on how to re-certify to extend their ASQ Certifications and/or how to synchronize them if they have more than one, please let me know. Re-certifying by exam costs more and is a lot more difficult than re-certifying through the accumulation of RU points. You can reach me, the Re-Certification Chair, at 915-241-4780 or (501) 615-8170. Please leave a message on the answering machine if no one answers and I will call back you as soon as I can. You can also reach me via the Internet at <a href="mailto:spikeguate@sbcglobal.net">spikeguate@sbcglobal.net</a>. I am ready to help with any questions you might have about Re-Certifying or about any ASQ Certifications you might have, call me. The Re-Certification Journal is at the following link and will guide you in the re-certification process <a href="mailto:https://asq.org/cert/recertification">https://asq.org/cert/recertification</a>

When re-certifying, <u>always get the most recent Re-certification Journal information</u>. The lasted Re-Certification Journal is January 2017. For ASQ members the fee for one certification is \$69.00 and for two or more \$89.00; for non-members the fee for one \$109.00 and for two or more \$109.00 each).

Members who <u>renew their membership early online</u> will receive a <u>coupon code</u>: <u>RCRT in which \$69.00 will be deducted off their recert fees</u>.

Projected Events						
2017	Month	Date	Day	Topic – Speaker	Location	
	April	8	Saturday	Leadership Meeting	Conference Room United Blood Services 424 S. Mesa Hills Dr. El Paso, TX 79912	

2017 Officers/Committee Chairs					
Chair: Sergio R. Vega Work Phone: (915) 860-6257 Cell Phone: (915) 276-1130 e-mail: sergio.vega@dish.com	Internet Liaison: Jack Vaughn Home Phone: (915) 594-6662 Cell Phone: (915) 549-2014 e-mail: <u>ivaughn@utep.edu</u>				
Vice Chair: Jose Luis Torres Phone: (915) 799-2432 e-mail: <u>ioseluis td@yahoo.com</u>	Newsletter: Kim Pries Home: (915) 525-1724 e-mail: jpries1@elp.rr.com or khpries@gmail.com				
Treasurer: Keith Fong Home Phone: (915) 351-7535 Work Phone: (915) 612-7147 e-mail:fongk@asme.org	Publicity Chair: Fernando Urbina Email: <u>furbina@sewsus.com</u>				
Secretary: Mark Aldred E-mail: <u>Mark.Aldred@Harris.com</u>	Refresher Classes/Workshops Chair: Hector Lugo Phone: (915) 208-2502 Home Phone: (915) 581-8091 e-mail: h7tetor@hotmail.com				
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