

Greg A. Larsen
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Summary

Specialize in problem solving, design of experiments, measurement system analysis, reliability statistics, statistical process control, sample surveys, and supply chain management applications. Taught in-house classes on a wide range of statistical topics at HP and Agilent. Have done extensive SAS programming. Provided statistical support to Six Sigma Teams. Successfully managed a quality improvement group. Work well in a team environment. Excellent people skills. Authored several technical publications and numerous presentations at professional meetings. Able to communicate in a clear logical fashion.

Key skills:

- Problem Solving
- Modeling
- Technical Communication
- Process Improvement
- Simulation
- Six Sigma
- Statistical Thinking
- Forecasting
- Lean

Professional Experience

G.A. Larsen Consulting, LLC, Loveland, CO

Current

Provide services which improve the quality and reliability of processes and products through the application of statistical thinking. Areas of focus include design of experiments, statistical process control, measurement system analysis, reliability, statistical tolerancing, forecasting and supply chain management. www.galarsenconsulting.com

Agilent Technologies, Loveland, CO

1999-2008

Senior Statistician

Provided statistical support across a large portion of the company on a variety of topics. Developed new methods to address specific problems. In some cases served as project lead.

- Estimated the cost of extending the standard 1-year factory warranty to as many as five years on hardware products totaling about a billion dollars in revenue. An independent actuarial analysis validated the cost estimate within the statistical uncertainty.
- Designed an accelerated test to estimate the shelf life of reagents used in the measurement of protein in blood samples.
- Led a project to improve the turn-around-time at a service center providing calibration and repair. Lean methods were used to re-layout the work area and the repair part delivery process was improved to reduce wait time.
- Led a project to implement structured contracting in which Agilent agrees to pay a price premium in return for suppliers guaranteeing predetermined quantities of materials.
- Determined buffer sizes and stocking locations for service parts used in flash memory test systems. The resulting supply chain optimized service level and minimized inventory.

- Analyzed time to failure data on a printed circuit assembly used in a flash memory tester. The analysis revealed a problem which was eliminated with a re-design resulting in large improvement in the system reliability.

Hewlett-Packard Co., Loveland, CO

1983-1999

Site Statistician

Local responsibility for providing statistical support for several Divisions engaged in the design, manufacture and marketing of electronic test equipment.

- Developed the theory and served as the Site implementation lead for a web-based application that allowed planners and buyers to statistically size inventories to meet desired responsiveness goals.
- Designed and conducted a measurement system analysis at a major test system customer site. The study resulted in dramatic improvements to the customer's test process and helped leverage several million dollars of incremental hardware sales.
- Developed a methodology to forecast order dollars at the Division level as well as the size of the semiconductor test equipment market. While designed to predict turning points, the quarterly forecast accuracy was within plus or minus 20% over a 3-year period.
- Developed a method to estimate the contact reliability for an in-circuit board test system used to measure the integrity of solder joints on printed circuit assemblies. The method was published and used in a number of related applications over many years.
- Designed an experiment that eliminated a long standing problem in a printed circuit board process. The experiment considered 11 process variables simultaneously and determined which had the greatest effect.
- Designed and conducted customer surveys to quantify perceptions and purchasing behavior for HP measurement products.

Education/Certification

Master of Statistics

Texas A&M University

Bachelor of Science, Mathematics

University of Nebraska at Kearney

Certified Reliability Engineer (CRE) with American Society for Quality

Professional Societies

American Statistical Association (ASA)

Senior Member American Society for Quality (ASQ)

Publications

Larsen, G.A., "Capability Measures for Measurement Systems Analysis", in Encyclopedia of Statistics in Quality and Reliability, Ruggeri, F., Kenett, R. and Faltin, F.W. (eds). John Wiley & Sons Ltd, Chichester, UK, pp 1070-1074. 2007.

Larsen, G.A., "Measurement System Analysis in a Production Environment with Multiple Test Parameters", Quality Engineering, December 2003.

Larsen, G.A., "Measurement System Analysis – The Usual Metrics Can be Non-Informative", Quality Engineering, December 2002.

Burdick, R.K., Allen, A.E., and G.A. Larsen, "Comparing Variability of Two Measurement Processes Using R&R Studies", Journal of Quality Technology, January 2002.

Burdick, R.K., and G.A. Larsen, "Confidence Intervals on Measures of Variability in a Repeatability and Reproducibility Study", Journal of Quality Technology, July 1997.

Burdick, R.K., and G.A. Larsen, "Confidence Intervals on Parameters in a Repeatability and Reproducibility Study", Third International Statistics in Industry Conference Proceedings, June 1995.

Mahoney, R.M., and G.A. Larsen, "A Bayesian Approach to Improving Test Effectiveness and Evaluating Test Strategy", ATE and Instrumentation Conference West Proceedings, January 1990.

Larsen, G.A., "Computing Capability for a Process which Uses True Position Tolerancing", HP STAT NEWS, 5(2), April 1989.

Mahoney, R.M., and G.A. Larsen, "Economic Analysis Clarifies Costs of Final Test and Board Test", Electronics Test, November 1988, pp. 42-46.

Balzer, R.J., and G.A. Larsen, "Predicting and Obtaining High Final Test Yields", International Test Conference Proceedings, September 1988.

Mahoney, R.M., and G.A. Larsen, "An Economic Basis for Obtaining a Competitive Advantage with Functional ATE", ATE and Instrumentation Conference East Proceedings, June 1988.

Larsen, G.A., "Estimating Contact Reliability Using Tolerances in a Complex PC Board Test Fixturing System", 12th Annual Rocky Mountain Quality Conference Proceedings, June 1988, pp. 361-375.

Book Review

(Society For Industrial And Applied Mathematics)

Design and Analysis of Gauge R&R Studies: Making Decisions with Confidence Intervals in Random and Mixed ANOVA Models, Burdick, R.K., Borror, C.M. and D.C. Montgomery, ASA-SIAM Series on Statistics and Applied Probability, 2005.

Journal Editorial Collaborator

Journal of Quality Technology, 38(4), October 2006, p. 385.

Journal of Quality Technology, 37(4), October 2005, p. 323.

Journal of Quality Technology, 36(4), October 2004, p. 462.

Journal of Quality Technology, 35(4), October 2003, p. 434.

Journal of Quality Technology, 34(4), October 2002, p. 472.

Journal Book Reviewer

Excel for Scientists and Engineers: Numerical Methods, E. Joseph Billo, Hoboken, NJ: Wiley, 2007. Technometrics, 50(2), May 2008, pp. 236-237.

Statistics in Engineering: A practical approach, A.V. Metcalfe, London: Chapman & Hall, 1994. Technometrics, 37(4), November 1995, p. 455.

Productivity and Quality Improvement, J.L. Hradesky, New York: MacGraw Hill, 1988. Technometrics, 31(4), November 1989, pp. 487-488.