

# ASQ Section 305—New Haven

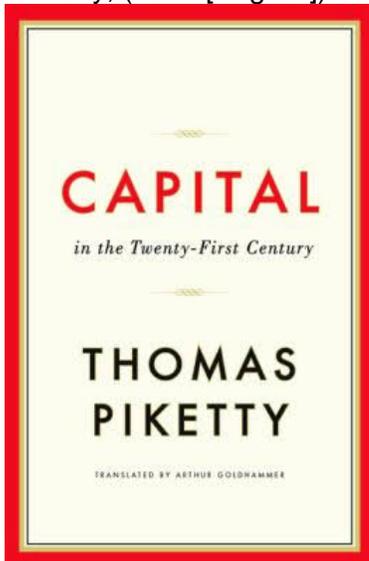
MONTHLY MEMBER NEWSLETTER

APRIL 2017 | VOLUME 1, ISSUE 1

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Book Review *Capital in the Twenty-First Century*, by French Economist Thomas Picketty, (2014 [English])



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## Upcoming Program

### LEVERAGING LEAN LOGISTICS TO LEAD IN THE 21ST CENTURY WITH MIKE FORD

Recent analysis provides estimates that logistics costs in the USA represent over 8% of GDP, roughly 1.4 TRILLION DOLLARS! This presentation will take a lean look at logistics and focus on how we can add value through warehousing, distribution and transportation. The following topics will be discussed:

- What is the goal of logistics?
- Lean warehousing techniques such as cross-docking and drop-shipping
- The trade-off between shrinking lot sizes and increasing deliveries
- Lean material handling and storage
- Design for Logistics (DFL) opportunities
- Sustainable improvements through reverse logistics (reduce, reuse, recycle)

The facilitator will utilize a combination of slideshow presentation, roundtable discussion, interactive exercises and summary Q&A to engage the audience in this highly participative session

Michael D. Ford, CFPIM, CSCP, CQA, CRE, CQE, ACPF, CPSM is Principal of TQM Works Consulting, for which he is widely recognized as a premier provider of corporate training across a wide array of subjects. He provides innovative solutions based on 30 years of experience in retail,

distribution, manufacturing, and consulting. His work history includes software implementation, business planning, inventory management, distribution planning and education. This includes a broad range of experience from ETO to MTS, as well as non-profits, service, and Department of Defense.

### MEETING PLACE AND CONTACTS

**Date:** April 12, 2017

**Place:** Cooper-Atkins Corporation, Middlefield, CT 06455

**Time:** Networking: 5:15;

Dinner: 5:30; Speaker: 6:30

**Dinner:** Pizza; **Cost:** \$15.00

### ONLINE:

[WWW.ASQNEWHAVEN.ORG](http://WWW.ASQNEWHAVEN.ORG)

Jay Krishnamoorthy (203)589-5350 or email: [JAYK\\_2@COMCAST.NET](mailto:JAYK_2@COMCAST.NET)

Bill Folsom: (203) 494-4002 or email:

[ASQGUY@GMAIL.COM](mailto:ASQGUY@GMAIL.COM)

### DIRECTIONS TO COOPER-ATKINS

**From the North:** Take I-91S to Exit 19, turn left onto Baldwin Ave which goes into Preston Ave. Follow until you meet East Main St (Rt 66) then take a left. Follow until Baileyville Rd (Rt 147), take a right. At Rt 157 turn left, destination will be on your right.

**From the South:** Take I-91N to Exit 15 turn right onto CT-68E then turn left onto CT-157N, destination will be on your left.

## Message from the Chair Book Review: *Capital in the Twenty-First Century*, written by Thomas Piketty

*Capital in the Twenty-First Century*, written by the French economist Thomas Piketty (2014) became a bestseller that prompted a broad and energetic debate on the outlook for global inequality. Many say it may cause a pronounced shift in the focus of economic policy, toward distributional questions, so much so *The Economist* sees Piketty as a modern day Karl Marx.

*Capital* draws on more than a decade of research by Piketty and a handful of other economists, detailing historical changes in the concentration of income and wealth. Piketty sketches out the evolution of inequality since the beginning of the industrial revolution. In the 18th and 19th centuries western European society was highly unequal. Private wealth dwarfed national income and was concentrated in the hands of the rich families who sat atop a relatively rigid class structure.

This system persisted even as industrialization slowly contributed to rising wages for workers. Only the chaos of WWI and WWII and the Great Depression disrupted this pattern. High taxes, inflation, bankruptcies and the growth of spreading welfare states caused wealth to shrink dramatically, and ushered in a period in which both income and wealth were distributed in relatively classless fashion. But the shocks of the early 20th century have faded and wealth is now reasserting itself. On many measures, Piketty estimates, the importance of wealth in modern economies is approaching levels last seen before the WWI.

From this history, Piketty develops a grand theory of capital and inequality. As a general rule wealth grows faster than economic output, he explains, a concept he captures in the expression  $r > g$  (where  $r$  is the rate of return to wealth and  $g$  is the economic growth rate). Other things being equal, faster economic growth will diminish the importance of wealth in a society, whereas slower growth will increase it (and demographic change that slows global growth will make capital more dominant). But there are no natural forces pushing

against the steady concentration of wealth. Only a burst of rapid growth (from technological progress or rising population) or government intervention can be counted on to keep economies from returning to the “patrimonial capitalism”. Piketty closes the book by recommending that governments step in now, by adopting a global tax on wealth, to prevent soaring inequality contributing to economic or political instability down the road.

The book has attracted a great deal of criticism. Some wonder whether Piketty is right to think that the future will look like the past. Logic argues that it should become ever harder to earn a good return on wealth the more that’s out there. He remarks that today’s super-rich mostly will come by their wealth through work, rather than inheritance. Others argue that Piketty’s policy recommendations are more ideological than economical and could do more harm than good.

Piketty is not the first modern day economist to poke the eye of capitalism with its unequal drive for wealth. James Kenneth Galbraith son of the famous John Kenneth Galbraith cites similar ideologies in his book *The End of Normal*. In his book if the global economy is not understood by the powers that be in America seeking to continue to grab as much wealth as they can chances are great losses will occur driving us to follow Picketty’s cry for a socialistic wealth control. Galbraith further remarks that the future job market is going to be fierce with high unemployment where small drifts of much growth from year to year will be heartily welcomed. Movements to follow past wealth engorgement and propping up of the rich may ironically force America and the world to move drastically to the left. Can’t imagine where our world of Quality will fall in these unsure future megatrends but it appears it’s not going to be pretty.

Whether or not Piketty succeeds in changing policy, he will have influenced the way thousands of people and plenty of economists think about these issues.

Larry Spinello, Section Chair, ASQNHS

## March's Program Highlights

### 3D PRINTING ACCOMPLISHMENTS WITH UNIVERSITY OF NEW HAVEN'S DR. MARIA-ISABEL CARNASCIALI

Last month we heard an interesting lecture from Professor Maria-Isabel Carnasciali of UNH about 3D printing accomplishments. She began by giving us a quick history of 3D printing where she surprised most of us of when the first 3D printer was invented, 1980! The first 3D printing attempts were granted to Dr. Kodama for his work of a rapid prototyping technique in 1980. He was the first to describe a layer by layer approach for manufacturing, creating a photosensitive resin that was polymerized by an UV light. Unfortunately, he did not file the patent requirement before the deadline.

In 1986 Charles Hull interested in the technology filed the first patent coining the term stereolithography (SLA). He founded the 3D Systems Corporation and a year later, released the SLA-1.

In 1988, at the University of Texas, Carl Deckard brought a patent for the Selective Laser Sintering (SLS) technology, a 3D printing technique in which powder grains are fused together locally by a laser. During this time Scott Crump, a co-founder of Stratasys Inc. filed a patent for Fused Deposition Modelling (FDM). FDM was the third main 3D printing technologies patented.

Dr. Carnasciali then showed us some slides about the 3D processing and how the equipment was engineered to use lasers that would heat its substrate and create layers, all controlled via a CAD CAM software approach.

Over the years we saw various uses for application of 3D printing by medical researchers, who started to combine medicine and 3D printing, opening the path to many uses. She showed us a slide of the first 3D printed working kidney, which will probably take 13 more years to see it transplanted into a patient. 3D printed kidneys are now working and researchers are experimenting on accelerated growth to transplant organs.

Another medical application are 3D printed prosthetic

limbs. It incorporates all parts of a biological limb printed without the need for any later assembly. Combined with 3D scanning, medical prosthesis and orthosis are cheaper and extremely fast to obtain.

In 2009 the FDM patents fell into the public domain, opening the way to a wide wave of innovation in FDM 3D printers, a drop of the desktop 3D printers price, and consequently, since the technology was more accessible, an increased visibility.

When asked where 3D printing stands in comparison to Moore's Law with electronics, she gave us a ballpark figure at around 5-10 years behind. Despite its marvel in technology, a full factory may still be some time off. It appears the faster a 3D printer is set the greater its chance for quality mistakes. Right now assembly processing time constraints play a big role for parts produced per hour that's not anywhere close of what can be done on today's plant floors. From where we go with 3D printing, it's clear that it hasn't reached its limits and many projects are waiting to be applied. Below is a history of 3D printing in bullets:

- 1980:** First 3D printing by Dr. Kodama Rapid prototyping
- 1986:** First patent of SLA by Charles Hull
- 1987:** First SLA-1 machine
- 1988:** First SLS machine by DTM Inc / 3D system
- 2000:** 3D printed working kidney was created
- 2000:** MCPT introduces Selective Laser Melting (SLM)
- 2005:** Z Corp launches first high-def color 3D printer
- 2008:** First 3D printed prosthetic leg
- 2009:** FDM patents fall into public domain
- 2010:** Urbee is the first 3D printed car
- 2011:** Cornell University began to build 3D food printer.
- 2012:** First prosthetic jaw is printed and implanted
- 2013:** Obama cites 3D printing at State of the Union
- 2015:** Fastest 3D printer Continuous Liquid Interface Production (CLIP) is introduced.
- 2016:** Daniel Kelly announces being able to 3D print bone



# Membership Update

## WELCOME NEW MEMBERS!

AMY AQUILINO

ROBERTO BALLESTER

DANA BOCHAN

MICHAEL BRADSHAW

HARRY E. BROOKS

ROB BROPHY

ANTHONY CAVALLARO

DAVID CHABER

MARK CRAWFORD

SHIVANI DESAI

JENNIFER E. DESMARAIS

LINA FRAZER

SCOTT HAEFFNER

TANIA HINDS

THOMAS HULL

THOMAS KAVANAGH

AJITH KUMAR ALLAM

DAVID LONG

WILLIAM LOCASCIO

JOHN MALEK

MICHELLE A. MALONE

LYNN MATHEWS-FROEHLICH

DAVID MICHAELS

JADITYA OZARKAR

RYAN O'CONNOR

JOHN H. PIZZONIA

KEITH PORTER

JASON ROMAN

ROCIO SANTANA VILLA

J DEANNA SCIACCA

JUSTIN SCHLAUDER

RICHARD G. STINE

STACY ST. JOHN

ANDREW STILLSON

NINAD TAMBE

RICHARD TOMER

AMBER WELLS

ELIZABETH WONG

KYLE ZUKAUSKAS

## OUR MISSION STATEMENT

*PROVIDE  
COMMUNICATION,  
NETWORKING, AND  
DEVELOPMENT  
OPPORTUNITIES  
TO SUPPORT  
KNOWLEDGE,  
SKILLS AND  
ABILITIES IN  
QUALITY  
PRINCIPLES AND  
CONCEPTS.*

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# Program Schedule 2016-2017

DATE	TOPIC	SPEAKER/ FACILITATOR	PLACE	COMMENTS
12-APR 17	LEVERAGING LEAN LOGISTICS TO LEAD IN THE 21ST CENTURY	MIKE FORD	COOPER-ATKINS CORPORATION, MIDDLEFIELD, CT	JOINT WITH SOUTHERN SECTION
17-MAY 16	PIEPER-OLSON VETERINARY HOSPITAL TOUR	HOSPITAL TOUR	PIEPER-OLSON VETERINARY HOSPITAL, MIDDLETOWN, CT	JOINT WITH APICS NEW HAVEN

## Attendee Gifts!!

This month's ASQ New Haven attendee gift will be the ASQ logo Pen, a real helpful implement for home and at work to assist each day of your Quality conscious life. We hope this gift choice will be appreciated by all.



**CHECK OUT COOPER ATKINS' FUN FILLED LINK!**

**[HTTPS://WWW.YOUTUBE.COM/WATCH?V=IEHKOPSMNRY](https://www.youtube.com/watch?v=IEHKOPSMNRY)**

# Job Opportunities

## QUALITY ENGINEER WANTED:

QUALIFICATIONS: The candidate must have experience developing quality systems for small precision manufactured components. Must have excellent verbal and written communication skill.

### ADDITIONAL ATTRIBUTES/CAPABILITIES:

- Must be a US Citizen due to government contracts.
- Develops, implements, manages and integrates a Quality Management System.
- Initiates and implements quality improvement activities as appropriate to raise the performance of the company's products and processes.
- Help to train employees.
- Serves as a quality control resource for problem identification, resolution, loss reporting and continuous improvement.
- Supports engineering efforts by participating in development projects.
- Designs, implements and documents procedures.
- Establishes and implements metrics for monitoring system effectiveness.
- Performs root-cause analysis and other problem solving activities to identify effective corrective actions and process improvements.
- Develops quality planning methods.
- Develops process certification standards and assist in process certification.
- Reviews customers purchase orders, contracts and change requests and ensure that the necessary criteria and provisions are included in quality and process plans.
- Oversees calibration and testing programs.
- Reports to management on quality issues, trends and losses.
- Participates in internal and external quality audits.
- Interfaces with supplier and customer quality representatives concerning quality problems and assure that effective corrective action is implemented.
- Experienced to handle all ISO Audit and upgrades with minimum direct oversight.
- Leads process quality improvements (working with Process Engineering) through the development and implementation of process controls, sampling systems, and SPC. Develops statistical process control systems. Capable of preparing customer PPAP needs.
- Periodic reviews of FMEA and Control Plans to ensure Risk Management and Process Controls are embedded in the manufacturing processes.
- Bachelor's degree in mechanical engineering, electrical engineering, manufacturing engineering or business administration, or equivalent number of years of experience.
- Ten (10) years of experience in QA systems implementation and management.

RESPOND TO: Ditron Inc.,

Fax: 1-845-227-2872

E-mail: [humanresources@ditroninc.com](mailto:humanresources@ditroninc.com)



## RELIABILITY ENGINEER WANTED

**Job Code/Title:** E1592: Reliability Engineer (Req ID: 378657BR )

**Job Description:** The Sikorsky Aircraft Reliability & Maintainability (R&M) group is looking for an experienced Engineer to provide technical support for the S92 and S76 Helicopter programs. The successful candidate will be responsible for planning and implementing R&M program tasks to ensure design integrity and safety requirements are in alignment with program and customer expectations. The individual will work as a member of an Integrated Product Team to influence design, manage root cause failure analysis and corrective action activities, quantify / assess R&M field performance, prepare Failure Mode Effects and Criticality Analysis (FMECA) and Fault Tree Analysis (FTA) in support of safety investigations, track Reliability Growth, prepare Maintainability Timeline evaluations, assessing Direct Maintenance Costs (DMC) impacts, and support product improvement proposal activities.

### Basic Qualifications:

- Experience in interpreting operation sheet instructions, engineering drawings and specifications as well as familiarity with Aircraft Certification requirements related to System Safety is preferred.
- Knowledge of aircraft and maintenance informational databases as well as technical manuals and maintenance procedures is also preferred.
- As necessary, proposes design, process and/or maintenance plan changes to improve system Reliability & Maintainability and DMC attributes.
- A course of study with emphasis on numerical analysis and statistics, with knowledge of aeronautical systems, is desired.
- Excellent oral and written communication skills and experience with MS Office are required.

- Co-op or Intern experience in appropriate technical field will be given special consideration.
- Must be a US citizen or Green Card holder.
- Ability to obtain Secret security clearance is desired, but is not a requirement.
- Typical Minimums: Bachelor's degree from an accredited college in a related discipline, or equivalent experience/combined education, with 2 years of professional experience; or no experience required with a related Master's degree. Considered experienced, but still a learner.
- Desired skills: Knowledge and experience with statistical concepts and analysis.
- Experience with reliability FRACAS (Failure Reporting, Analysis, and Corrective Action System) and data mining.
- Strong interpersonal skills and ability to build effective working relationships
- Excellent oral and written communication skills and an ability to perform oral presentations in front of large groups.

### Abstract Points:

Security Clearance: None

LMCareers Business Unit: ESS6500 RMS

Business Area: Rotary and Mission Systems

Program: S92 / S76

Dept: 4650CSM:SAS Eng Commercial (CT)

Reports To Manager: William Nesbitt

Recruiter: Christian Zola

Job Class: Aeronautical Engineering

Level/Grade: E2H

Rate Range: 61100 - 101800

Job Category: Experienced Professional

Work Location: 116 Quarry Rd, Trumbull, CT

Relocation/Housing Stipend Available: Possible

Req Type: Full-Time

Shift: First

EEO: Lockheed Martin is an Equal

Opportunity/Affirmative Action Employer.

[https://lmpeople.lmco.com/functions/apply\\_for\\_job/apply\\_for\\_job.aspx](https://lmpeople.lmco.com/functions/apply_for_job/apply_for_job.aspx)



## SECTION LEADERSHIP COMMITTEE

### Section Chair and Newsletter Chair:

Lawrence Spinello (203) 248-4085

**Vice Chair:** Diego Dussan (203) 648-7583

**NEQC Rep, Treasurer, Nominating  
and Past Chair DRD:**

Bill Folsom (203) 494-4002

**Audit and Placement Chair:**

Gene Contardi (203) 795-6914

### Secretary and Membership Chair:

Suzette Herrick (774) 239-6743

**Web Chair, Programs**

**and Education Chair:**

Jay Krishnamoorthy (203) 589-5350

**Certification**

Frank Tyszka and Art Bystryk

## ASQ NHS BOARD MEMBER REQUEST

We are also looking for ASQ members to join our Section Leadership Board. Our current openings are

**Programs Chair:** Tasks for this position would be to ensure that section meetings and/or programs occur regularly. Determine focus of section meetings and programs. Solicit speakers to match topics and setup the arrangements, if applicable, to coordinate speaker needs. Work with newsletter editor to publish events in a timely manner. Attend SLC meetings and general membership meetings. As many of our meetings these past few years have been shared with APICS, ISTM and our Southern Section ASQ, finding speakers and great topic ideas have been a team effort. ASQ Board also plans to work with the new Programs chair on a variety of approaches for help.

**Web Chair:** Develop and maintain a continuous reliable source for section information via the Internet. Maintain section's mini web page on [www.asq.org](http://www.asq.org), including all information and links to any external section website. See more details on our webpage

