

AME/APQC Benchmarking CoP Virtual Networking Event June 19, 2012

Report Out from April Face-to-Face BCoP Meeting: Growing
Manufacturing in North America

Benchmarking CoP Steering Committee

Ron Webb – APQC

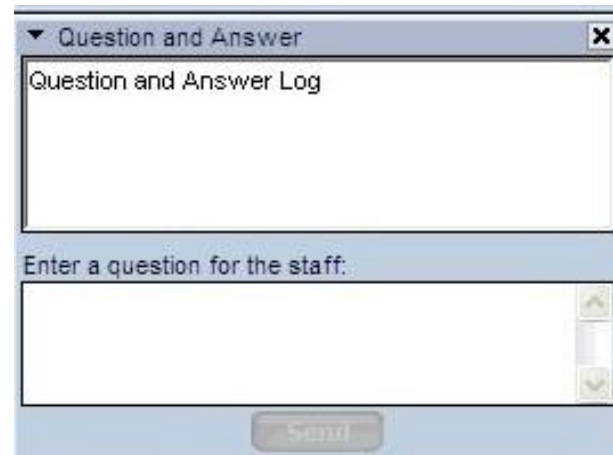
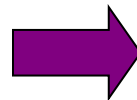
Deanne Davidson – Eaton

Bill Baker – AME



Housekeeping

- All lines are muted.
- You can submit questions/comments at any time. We will address all questions during the Q&A session at the end of today's presentation.



- Links to the recording and slides will be made available to all attendees via e-mail.
- Follow-up survey to provide more feedback.

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Session Agenda

10:00 a.m. Welcome/Housekeeping

10:05 CoP Business

10:10 Benchmarking Presentation

10:45 Open Q&A

11:00 Adjourn

2012 Benchmarking CoP Calendar

Month	Session	Presenter
February	Trends in Reinvesting in US Manufacturing 2010 (replay)	Harry Moser
March	Latest Best Practices in Supplier Category Management	KPMG/APQC
April (1)	Sustaining Process Improvement	Mick Wilz
April (2)	Role of KM in Growing US Manufacturing (Face-to-Face)	Various
May	Daman Products Company, Inc.'s Continuous Improvement Journey	Larry Davis
June	Report out: April In-person Session on Growing Manufacturing	CoP Members
July	The Latest Trends in Reinvesting in US Manufacturing	Harry Moser
August	TBD	TBD
September	TBD	TBD
October	TBD	TBD
November	TBD	TBD
December	TBD	TBD

Send your topic or presenter recommendations via the Q&A tab or email at rwebb@apqc.org.

AME Events (www.ame.org)

- 06/22
 - Mastering Lean Product Development
- 06/26 Irvine, California
 - SoCal Open Mic Night
- 07/10 Downsview, Ontario
 - Bombardier Aerospace Plant Tour
- 07/12 Newark, New York
 - Operational Excellence in a Job Shop Environment
- 07/12 Fishers, Indiana
 - TWI Job Instruction Deep Dive
- 07/17 Decatur (Tanner), Alabama
 - Toyota Kata Seminar
- 07/17 - 07/19 Decatur & Athens, Alabama
 - Toyota Kata Seminar & Steelcase Workshop
- 07/19 North Haven, Connecticut
 - Your Visual Business
- 07/24 Loma Linda, California
 - A3 Thinking - A3 Development
- 07/25 - 07/26 Milwaukie, Oregon
 - PDCA: The Core of Sustained Improvement Efforts
- 07/26
 - Lean Office & Service Simplified

APQC Events

➤ Webinars

■ Wednesday, June 20

- Financial Management Community of Practice

■ Thursday, June 21

- Knowledge Management Community Call

➤ Benchmarking

■ Using Metrics that Drive Bottom-Line Value

■ Effective Project Management Offices (PMOs)

■ Managing Organizational Resistance to Change

■ Extending your Quality Program Throughout Your Supply Base

■ Innovation Beyond Next Week

■ More Information

- <http://www.apqc.org/best-practice-studies>

Benchmarking Presentation Growing Manufacturing in North America

BCoP Steering Committee Members

Ron Webb, APQC

Deanne Davidson, Eaton

Bill Baker, AME

All lines are muted. Please send your questions via chat to the Organizer.
We'll cover them at the end of this session.



We WILL send out a link to the recording of the event in the coming days.

Background Information

- April 2012, AME and APQC hosted a face-to-face session
- During APQC's 17th Annual Knowledge Management Conference and Training.
- Open discussion of current challenges within the U.S. manufacturing sector.
- Two groups focused on discussing and reporting out on two topics:
 - building an educated and trained work force, and
 - promoting product and process improvement.



A Better Educated Workforce

Build a Better Educated and Trained Workforce

➤ Current Status

- The educational system in the United States is not adequately preparing workers for jobs in the manufacturing sector
- Has reduced the amount of manufacturing that can be done in the United States and affected the global competitiveness of U.S. manufacturers.
- We'll need workers to meet the demand in growth of North American manufacturing.

Build a Better Educated and Trained Workforce

- Reform public education.
- Cultivate manufacturing career paths.
- Promote training that address unemployed skills gap.
- Broaden the skills of current workers.

Workforce Training

- K-12 education should consider the needs of industry when developing curricula.
- Joint initiatives of businesses, educators, and policy makers
 - Ensure that K-12 education provides relevant curricula and training to produce literate citizens who have critical thinking skills.
 - Educate K-12 education on the process-improvement concepts used in business today so they can use them and better educate students in them.

Industry/K-12 Partnerships

- Newport News Shipbuilding supports career education beginning in the local schools and advancing to senior employees

Pathways to Workplace Readiness

The [Career Pathways program](#) in Newport News Public Schools offers opportunities to share information about potential careers with students. The program includes sessions on manufacturing engineering, science and technology, and other career-oriented topics. Its career readiness training materials focus on problem-solving, work ethic, teamwork, and other areas.

The [STEM](#) (Science, Technology, Engineering, and Mathematics) curriculum series of programs also brings greater attention to math, science, and other core curriculum studies. Students gain needed skills for successful careers and contribute to a larger pool of potential workplace-ready employees, McClain said.

Opportunities also include job shadowing for high school juniors and seniors. Students visit different areas in the shipyard and offices, learning about everything from design and the beginning of the NNS processes to output — mechanical, electrical, simulation, and other areas of engineering.

Source: “Workforce Training: Crafting Tomorrow’s Workforce” (www.ame.org December 2011 Target online)

Industry/K-12 Partnerships

Collaborating with Local Schools

NNS managers John Shifflett and Jennifer McClain shared their rules of the road for effective collaboration with educators in workplace readiness initiatives:

- Provide information to faculty, staff, and school superintendents about your workplace and needed skills/capabilities.
- Be flexible to meet educators' schedules and restrictions.
- Take time to find and involve educators actively working to help students connect with career opportunities. Share and ask for ideas.
- Ask educators how you can help them meet their goals.
- Create and support an infrastructure or network of people inside your company who will talk with students about workplace activities and careers.
- Develop a long-term development process. Start by connecting with children in grade school. Then continue with middle school and high school programs followed by partnerships with community colleges and universities.

In the welding program at nearby Thomas Nelson Community College, for example, NNS provided welding equipment and trained their welding instructors for the types of welding done at the yard. Participants completing the program earned NNS job offers. This program enabled NNS to cut the welders' qualification time in half when they came to the shipyard and improved welder trainee retention rates from 50 percent to 90 percent. "They knew what the job was, they were interested, they accepted jobs, and they were retained, a cost savings for us," said Shifflett. "Developing these successful candidates helps us to prepare our future workforce."

Source: "Workforce Training: Crafting Tomorrow's Workforce" (www.ame.org December 2011 Target online)

Industry/K-12 Partnerships

North Star Vision for Education

Houston-based American Productivity and Quality Center (APQC) is a nonprofit and global leader in process and performance management, benchmarking, and knowledge management that created the Malcolm Baldrige National Quality Award. [APQC](#) supports school districts across the U.S. and the world through the APQC Education North Star Project, a transformational K-12 education initiative designed to help school districts save money and improve effectiveness. By using performance improvement concepts based on more than 30 years' experience with thousands of global organizations, APQC aims to improve educational outcomes.

By failing to focus on processes, school districts hinder their performance (curriculum alignment, facilities expenses, etc.). "We offer a methodology and toolset that most educational leaders in our country are not taught," said Fred Bentsen, executive director, education. "We are creating dialogue and relationships with local school districts."

In addition to helping schools become more efficient, they also help schools reduce dropout rates, improve students' workplace readiness, and enhance curriculum planning. "We analyze processes that work and those that do not work well, through process mapping, root cause analysis, and process redesign," Bentsen said.

While APQC charges school districts for its North Star services, the payback is generally substantial. Bentsen noted that the school districts participating in the North Star program saved more than \$43 million during the past three years, thanks to completion of process improvement projects.

"For example, one school district spent \$35,000 for the program and saved \$2 million over two years," he said. "Our plan is to help all school districts in the U.S. become more efficient and more effective."

Source: "Workforce Training: Crafting Tomorrow's Workforce" (www.ame.org December 2011 Target online)

Once They're Hired

- To better prepare workers for long-term careers in the manufacturing sector, more organizations should adopt Training Within Industry (TWI) programs.
- These programs include set training modules focused on the following areas:
 - job duties and performance,
 - employee relationships,
 - process improvement,
 - problem solving, and
 - workplace safety.

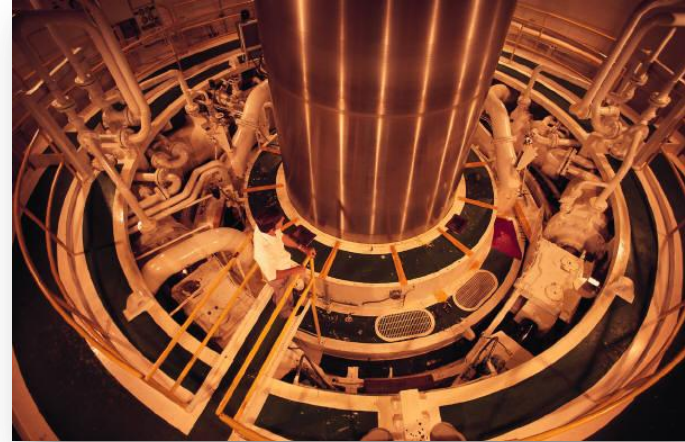
Training Within Industry (TWI)

- TWI programs provide a standardized method for organizations to train workers who may not have acquired needed skills during K-12 education and to prepare workers for advancement within the manufacturing sector.
- The TWI Institute can provide organizations with additional education, training certification, and other resources that they need to adopt and sustain TWI programs.

- <http://twi-institute.com/>

Lack of Knowledge Sharing

- The participants also identified a lack of knowledge sharing as a significant barrier to achieving a trained and educated work force.
- Participants indicated that employees with tacit knowledge are less likely to engage in knowledge sharing, often because of job security concerns.
- The group discussed several possible solutions that organizations can adopt to encourage knowledge sharing.
 - Explicitly recognize employees who engage in knowledge sharing.
 - This could take the form of awards or recognition in employee communications, but could also involve rewards such as gift cards, sporting event tickets, or other items.
 - Another possible solution is the creation of formal events in which subject matter experts discuss specific topics while other employees capture the knowledge to disseminate throughout the organization.
 - A less formal solution might involve the sharing of brief “knowledge tips” at the beginning of meetings, allowing senior staff to impart knowledge and expertise to younger employees.



Product and Process Innovation

Promote Product and Process Innovation

- Determine the Knowledge Management (KM) approach that is right for your organization.
- Benchmark your practices with other organizations.

Incorporate KM Approaches

- Knowledge Management (KM) approaches must be incorporated into day-to-day activities in order for an organization to derive value.
- Organizations should evaluate the importance of knowledge sharing at all levels, but especially for line workers and managers, who often need information but lack an easy way to obtain it.
 - Organizations should consider where and how these types of workers might access knowledge.
 - Information might be channeled through mobile-device applications or conversations with designated point-of-contacts within the organization.

Put KM “In the Flow” of Daily Work

- Considered how knowledge can be lost in the course of routine activities and how KM can be incorporated into day-to-day activities with minimal disruption.
 - The employee does “KM” as a part of their normal work processes.
 - Technology enables this heavily.
 - Group looked specifically at potential knowledge loss from unmanaged e-mail communications.
 - Deletion of e-mails can lead to the elimination of process documentation as well as the loss of potentially important attachments.
 - Group also pointed out that knowledge documentation could be incorporated into routine document creation processes.

Look for Commonalities

- Similarities among projects within an organization should be identified so that project groups can share best practices.
 - These similarities can be identified through a cross-functional group of KM volunteers within the business units.
 - The KM group can also facilitate knowledge sharing among project groups.

Use a KM Specialists

- Employees with knowledge are not always the best individuals to document that knowledge.
 - To ensure that knowledge is captured in an accurate and timely manner, organizations can designate individuals to gather knowledge from staff and then document that knowledge.
 - These individuals could be trained in active listening in order to distinguish critical employee knowledge from other, less important information.
 - The designation of certain individuals to handle knowledge capture would increase the likelihood that employees would participate in KM because they would not have additional tasks added to their workloads.

Benchmark Externally

- An important component of process improvement discussed was the benchmarking of current business practices to get an accurate picture of performance and to identify improvement goals.
- The group consensus was that, regardless or generally accepted knowledge, industry may not be as important in a benchmarking peer as other factors such as location, organization size, or the business process itself.

A Related Topic

Drive Global Competitiveness
Re-Shoring North American Manufacturing

Drive Global Competitiveness

- Continually analyze “Total Cost of Ownership”
- Resist the temptation to off-shore your operations.
 - Based on price: US averages 142% higher
 - Based on TCO: US averages 23% higher
 - For 40% of the cases: US TCO is lower than China.



Source: Reshoring Initiative. <http://www.reshorenw.org/>

Thank You for Attending!

- Feel free to forward questions or recommended topics to schandler@ame.org
rwebb@apqc.org