



## **A Case for Skill Standards – Time for Industry to Get Involved and Get Training Again**

For years now, business leaders have complained that education has not kept pace with emerging technology, new hire skill requirements and employer demands for a trained and motivated workforce. In a recent *U.S. Census Bureau Report*, 4 out of 10 executives cited the shortage of skilled workers as the principal obstacle to modernizing operations necessary to compete in a global economy. Respondents to that survey said “skill gaps” inhibited their ability to institute both new quality improvement processes (28%) and new productivity improvement processes (40%). To add fuel to the fire, two-thirds of the respondents from a *National Association of Manufacturers* (NAM) survey reported that a lack of skilled workers made it difficult to maintain production levels to meet customer demand. In addition, young people and re-careering adults are not getting the information they need (and want) to enter into a career in manufacturing. The nation’s career guidance counselors and employment agencies are unaware of opportunities in manufacturing, have pre-conceived notions about jobs in manufacturing and are unable to “speak the language” of manufacturing. In a 2002 survey conducted by Ferris State University (*Decisions Without Direction*), 51% of the students polled said “No One” has been helpful in advising them on career options and only 3.8% cited that employers have been helpful. I have even heard some employers say, “*Just give me a warm body – one that’s breathing, to fill my new hire or promotional needs.*” However, according to the *U.S. Department of Labor*, the cost of a “bad hire or promotion” equates to 30% of a year’s salary! It’s time for everyone to “step up to the plate” and get involved. Educators can’t do it alone and parents can’t do it by themselves, but with the combination of business, community organizations and education working together, a skilled, literate and motivated workforce can be achieved and sustained. One way for industry to get involved and get training again is to accept and start implementing skill standards!

There are a variety of ways to implement “skill standards.” There are national skill standards developed by the Manufacturing Skill Standards Council (MSSC). There are industry skill standards such as those developed by the National Institute for Metalworking Skills (NIMS). There are “home grown” skills standards developed by private manufacturing companies and corporations. However, with some notable exceptions of companies that have developed their own proprietary “home grown” skill standards, there has been little acceptance of skill standards by American industry.

Educators have done pretty well accepting and using skills standards. Technical schools, community colleges and career development organizations have used skill standards to improve curriculum, setup training laboratories and simulations, provide credentials to their graduates, and replicate a “world of work” environment. But their efforts only complete half the job of building a world-class workforce. The conduit between what is learned in school or in a simulated environment and what is expected on-the-job using equipment and process specific applications has failed. Do employers expect someone else to do the entire job of educating and training workers? There is a difference between technical education and actual job training. There is an old biblical quote that may apply



here - “Give unto Caesar what is Caesar’s.” Let educators do their job and let training do its job! After a student, apprentice or incumbent employee learns about the work in a knowledge-based environment the baton is passed to the employer and into the workplace so the individual can be trained in how to do the job. It’s a partnership – those links in the chain that produce competent workers and continuous learners. Skill standards represent the missing link between education and industry training. Productivity and profitability includes investment in “human capital” and that means training. One employer said to me, “I can’t afford to train.” I say, “How can you afford not to.”

Training pays! - The value of plant shipments per employee coupled with ISO/QS guidelines and lean manufacturing requirements has created the necessity for a well educated, highly trained and extremely flexible workforce. These workers must be responsible for assuming a wide range of duties to get the job done safely, efficiently and effectively. An *Industry Week* survey acknowledged that those companies providing 8 hours or less of training reported an average annual value of \$139,000 of plant shipments per employee. While those companies providing 24 to 40 hours of training reported over \$194,000 of shipments per employee, with a significant reduction in reported injuries, product returns/rework and employee turnover. Past studies showed that a 10% increase in education and training resulted in a productivity gain of 8.6% as opposed to a 10% increase in capital that produced a meager 3.4% growth in productivity.

According to a 2003 *Emerging Workforce Study* conducted by Harris Interactive, up to half of American workers are ready to change jobs. The average replacement costs for each range from \$20,000 to \$50,000. If only 30 percent of these workers act on that desire for change, employers could face collective turnover costs from \$250 billion to \$590 billion dollars, putting employers in a perpetual state of new-hire training. A Florida company increased its employee training to 60 hours a year, and that cut turnover by 50%. The expense of this training when compared to the cost of turnover saved the company money, created skilled workers and had a positive impact on company loyalty (a rare commodity now days). As the economy begins to heat up and considering the demographics of an aging workforce coupled with the current “skills gap” problem, experts say there’s a dramatic labor shortage looming in the Untied States. In 10 years, available jobs could outnumber workers by 6.7 million, according to the *Employment Policy Foundation* in Washington. The paradox: Employers struggle to fill job openings while people unqualified for these positions sit idle. So, when it comes to bridging the skills gap and providing the “benefits” of training, employers have to become visionary out of necessity. It is unfortunate the training and development of employees are often the first areas to be cut during an economic downturn. Companies rarely measure how that might be hurting their bottom line and their ability to compete in the near future. How often has it been said – “We’re too busy right now for training” when times are good or “We don’t have the money to train right now” when times are bad.



Employees perceive training as a “benefit.” Company-based training and tuition reimbursement programs show that the employer cares and learning matters. Employers may provide a variety of worker benefits such as health insurance, dental plans, vision care, life insurance policies and retirement plans along with vacation time, personal days and sick leave. Many of these “traditional” benefits come at great expense and impact the cost of doing business. Training and education, however, have payback. This return can manifest itself in many ways – in dollars, loyalty, morale and teamwork. Successful companies are now advertising their “training benefits” and using them as recruiting tools to find and keep good workers. The competition for quality workers will be critical to compete in a global marketplace.

The U.S. trade deficit has ballooned to historic highs and unfair global competition in some parts of the world has become an economic and political concern. This trade imbalance reflects an increase in purchases of foreign-made goods, especially from countries that do not freely float their currencies. However, despite significant job losses, manufacturing is facing a shortfall of highly qualified employees with specific skills and abilities. If the skills of the American workforce do not improve, it will be detrimental to our competitive edge and future economic growth. The Precision Metalforming Association (PMA) issued a press release this October announcing the completion of the *Tool & Die Training and Assessment System* (a national training & assessment model based on putting industry skill standards to work). The following day, PMA received an email from a tool and die company that said – “*Why bother, everything is going overseas anyway.*” Although many factors are contributing to this dilemma, are we just going to give up? If America has no one skilled, trained and available to do the work, the jobs will definitely go overseas.

So, how do skill standards fit into all this? What are skill standards and why should industry embrace them?

Skill standards (whether company-specific, national or industry based) communicate the level of knowledge, skills and abilities required for successful work performance. Skill standards define a common language of quality and work expectations for employers, employees, job seekers, job advancers, educators, trainers and labor representatives.

Skill standards improve a company’s bottom-line through human performance. They spur increased productivity and creativity in the workplace by supporting high-performance requirements of successful companies. Skill standards are a tool to focus training dollars in a meaningful way by identifying gaps in employee ability. Skill standards allow companies to shift pre-employment and entry-level education back to the schools and help reduce costs associated with screening job applicants. Skill standards set forth on-the-job training requirements and employer expectations necessary to acknowledge successful performance for job placement, advancement, promotions and pay-for-skills programs (both from a legal and “best practice” perspective). Some employers have reported reduced worker compensation and insurance costs through skill standards usage. Skill standards provide a benchmarking process for continuous



improvement efforts and when skill standards are “put to work,” they assist in ISO/QS compliance. Skill standards are the “jump start” for employers to develop or upgrade their recruiting, training, advancement, benchmarking and worker retention programs.

Many employers have looked at the national or industry skill standards and have said, “*I’m in the business– I know this stuff already.*” Well, let’s hope so! Skill standards were developed by industry and for industry. A 2003 *BusinessWeek’s* study showed that as hard economic times hit, businesses cut back on many general education programs. Instead of allotting their funds to off-site academic courses, more companies were taking training in-house and demanding customized training geared specifically to their industry, criterion and circumstances. Skill standards fit right into this re-focusing of resources and ownership of learning.

It’s putting skill standards to work and getting a return for the investment that matter most to employers. One of the ways that skill standards are applied in the workplace is through worker certification or credentialing. Remember, many skill standards are only a general outline of overall work expectations. By using tests and assessments based on these standards, employers can now measure the abilities of their employees. This measurement provides a wealth of information in regard to worker placement, who should advance in the job, where training may be needed, how much a worker should be paid, what a worker can do and how well they can do it, what combination of employees comprise a good team for problem solving or continuous improvement, and/or documenting worker competency for ISO/QS or regulatory compliance. Some employers have said, “*Well, if I certify or credential my employees they will want more money.*” Well, what’s wrong with that! If productivity and profitability gains can be directly attributed to human performance, why not funnel some of that money back into the workforce? This does not necessarily have to take the form of raising hourly wages. Rewarding what you value can be done using bonuses, stock options, profit sharing, gift certificates, additional vacation days, higher 401K employer contributions or by instituting a pay-for- (individual) skill/pay-for- (business) performance compensation program.

Skill standards and their resultant certification/credentialing applications are excellent communication tools for letting new hires, employees and in-plant trainers know what knowledge, skills and demonstrated abilities are necessary to succeed and advance. Using skill standards, you can create better job postings, recruiting strategies and job descriptions. The application of these standards motivates employees to take responsibility for their own learning and productivity by developing explicit performance requirements. Using skill standards introduces an environment of unbiased fairness and equity into the workplace. Through skill standards and skill assessment, indicators have shown a boost in employee morale, dedication and the recognition of individual contributions to the greater corporate mission.

National and industry skill standards (or components thereof) are interpretive in many ways. They illustrate overall skill-sets that can be (and should be) customized, honed and refined to meet the performance requirements of the plant and made specific to the



equipment, processes or quality standards of the workplace. So, these standards are a catalyst to get you going and get you thinking. The assessments that put these national or industry skill standards to work are measures of major millstones (kind of like final exams). Additional measurement instruments may have to be developed and woven into the fabric of your training design to support specific applications that are proprietary to your operations. Again, national and industry skill standard assessment and credentialing programs save you time and effort and get you started in the right direction. For those companies that developed their own skill standards, assessments and certification programs, the resultant skill-sets and assessments are already process/equipment specific and reflect quantifiable standards of that workplace. However, developing your own company or corporate skills standards, assessments and/or certification program can be costly and time consuming.

Finally, skills standards in any form or style are not training programs. Skill standards form the foundation or blueprint to design and develop both education and training programs. Certification or credentialing assessments put skill standards to work on the plant floor and probably represent the most important aspect of a skill standards system from an employer perspective and can be used for a variety of purposes. The controlled documentation and tracking of employee skills and recognition of competency are essential components of all in-plant training and skill standards certification/credentialing programs.

In conclusion, skill standards are not a cure-all nor all-inclusive. Skill standards and their formal assessments are tools you can use to save time and money. Skill standards can also benchmark your existing employee performance requirements against national or industrial world-class standards. Skill standards are the basis for education, training and hiring in many modern, industrialized nations around the world. Skill standards and the programs that emerge because of these standards, form a well-educated, highly flexible and skilled workforce. These high-performance workers provide a competitive edge that is just as important as the availability of natural resources, equipment reliability, cost of raw materials or technological advances in the industry. When you are using skill standards within your company, and when schools, colleges and community organizations that you recruit from understand and educate to these standards, you will, beyond a doubt, have a workforce that can compete and excel in the new global economy. In the ever-changing marketplace, it is imperative for organizations to constantly evaluate what differentiates them from the competition. It's time to train again.

### **National and Industry Skill Standards and Credentialing Organizations:**

National Skill Standards – **The Manufacturing Skill Standards Council (MSSC)**  
2000 L Street, NW, Suite 807, Washington, DC 20036 (phone) 202-429-2220  
<http://www.msscusa.org>

Industry Skill Standards – **National Institute for Metalworking Skills**  
3251 Old Lee Highway, Suite 205, Fairfax, VA 22030 (Phone) 703-352-4971  
<http://www.nims-skills.org>



## **Organizations That Develop Company Specific and Customized Skill Standards:**

**WorkingSolutions** – 6363 Oak Tree Blvd., Independence, OH 44131 (Phone) 216-901-8800, email, [bbroman@pma.org](mailto:bbroman@pma.org) website [www.workingsolutions4u.org](http://www.workingsolutions4u.org)

**NetSkillSystems** – 2000 L Street, N.W., Suite 807, Washington, DC 20036 (Phone) 202-429-2220 x108, email, [reddyn@nacfam.org](mailto:reddyn@nacfam.org)

## **WIIFM? – What’s in it for you by using Skill Standards:**

- Better and more descriptive job postings and job descriptions
- Valid and strategic information for better job or promotional interviews
- Less time designing, developing and providing training
- Enhances, rather than replaces existing workforce development systems
- Proof of individual ability through practical assessment
- Easier to design and develop a legally defensible pay-for-skills program
- A fair and unbiased way to recognize and reward exceptional performance
- Sets forth a wealth of information for benchmarking efforts
- Identifies skill gaps so training is directed to where it is needed most
- Fulfills many of the competency requirements as stipulated by ISO/QS
- Builds better teams for troubleshooting, action planning and continuous improvement
- Standardizes the language and expectations of quality for better flow-through communications
- Facilitates partnerships with education, business and community organizations that actually work
- Gives focus as to what education and training materials and services should be obtained
- Provides justification for training expenditures – purchases that will “pay off”
- Streamlines the learning process so workers become more productive quicker.

☺ And who knows what else your creative managers, supervisors, trainers and workers will find when you start putting skill standards to work?

## **What benefits should you track to assess the ROI on Skill Standards Training:**

Although not a perfect science, measures for return on investment for training are *Cost*, *Change* and *Impact*. Measure training as part of an overall strategic plan. The measurement of return on investment for you may be different than it will be for other managers. Cost may not be your first priority. The desired return for the production manager could be increased productivity, progress toward a goal or establishment of some new capability. Another manager may care about proper materials handling, maintaining production schedules and reduction of operator errors. Maintenance managers may be concerned with equipment reliability and eliminating unplanned outages. Sales may be interested in reliable delivery schedules, consistent product quality



and reducing customer complaints. Remember, ROI is a backward-looking metric that may yield little insight into how to improve business results in the future.

Measure results against defined performance metrics using a pre-skill standards training and post-skill standards training strategy (at 3 month, 6 month and 12 month intervals). What you can measure includes, but is not limited to:

- Process Cycle Times \*
- Process Variation/Consistency (traceable)\*
- Productivity/Production Rate (by workstation or individual)\*
- Production Downtime (caused by human error)\*
- Product Return and/or Rejection Rates (traceable) \*
- Rework and Scrap Control (costs & time) \*
- Problem Response Time and Corrective Action Time to Up Time\*
- Setup Time or Changeover Time
- Recruitment Costs and Time
- Screening & Hiring *versus* Probationary Job Performance
- In-Process Inventory & Inventory Control
- Turnover and/or Absenteeism
- Reportable (lost time) Injuries
- Team Meeting Attendance and Participation
- Action Plan Development for Continuous Improvement or Problem Solving
- Customer Complaints.

\* Highly recommended measure

## Words of Wisdom

*“Tell Me What You Know Then Show Me What You Can Do”*

Training – *“Do it Through Your People, Not to Your People.”*

*“You Can’t Make a Good Part With a Bad Print – You Can’t Develop Good Training With a Bad Design.”*

*“You Wouldn’t Sell a Product Before You Tested It First?” – What About Your Workers?*

*“Learning is a Journey, Not a Destination.”*

*“A Mind Once Stretched by a New Idea Never Regains its Original Dimensions.”*

*“Metalforming needs Mentalforming.”*

Instead of *“What’s in it for me?”* – It’s *“What’s in it for U.S.”*

☞ For more information about NIMS Skill Standards go to

<http://www.pmaef.org/news/index.htm#NIMS> **A Step-by-Step Guide to Integrating NIMS Skills Standards Into Your Organization** and check out

<http://www.pmaef.org/Member/SkillStnd/embrace.htm> **Why Embrace Skill Standards**