

Feature

The Skilled Workforce Shortage

By Don Whyte and Steve Greene

Strong partnerships and alliances are required to develop our current and future workforce



Our industry is in the midst of a skilled workforce crisis. For more than twenty years, the construction and pipeline industry has recognized the emerging and growing shortages of skilled craftworkers but broad industry-wide support needed to solve the problem has not been obtained. Every year, FMI, the nation's leader in consulting and investment banking services for the construction industry, publishes an overview of U.S. construction markets. In the 2005-2006 report, Hoyt Lowder, Senior Vice President, stated, "If you haven't heard the words, you will: labor shortage. It's not just a craftworker shortage, but a shortfall of qualified managers and leaders." He goes on to say, "Labor shortages of craft, supervisory and management are the primary issues in all sectors, segments and markets." As an industry, we must recognize this critical workforce crisis and come together to solve it. These shortages affect our entire industry, including suppliers, manufacturers, owners, operators, and contractors.

In December 2004, economic think tank The Brookings Institute released a study titled *Toward a New Metropolis:*

The Opportunity to Rebuild America. The study noted that "Residential and commercial development in the next 25 years will eclipse anything seen in previous generations," and that "Nearly half of what will be the built environment in 2030 doesn't exist yet." Our industry is facing staggering growth while simultaneously wrestling with significant workforce challenges. The construction industry used to take pride in a tradition of craftsmanship. Today, while many of our craft professionals still hold this pride, the industry no longer instills this pride in young people searching for career opportunities.

The construction industry first recognized the shrinking supply of skilled craft professionals in the late 1980s. Organizations like the NPRA have helped focus the industry on this critical issue by providing forums for discussion and by formulating solutions. Associations like Associated Builders and Contractors and Associated General Contractors of America, along with their progressive contractor members have helped the industry make strides in attracting and training new and experienced workers. Despite these efforts,

the issue is far from solved and has even intensified in recent years.

Our purpose is to discuss the demographics and trends of our current workforce and those of the population that the industry needs to attract. We will review the factors that have contributed to the shortage of skilled craft workers and the recent events that have escalated the shortages to crisis proportion. Finally, we will discuss the current workforce development resources that are available to address this issue and the short- and long-term strategies and solutions that are needed to build a strong workforce of skilled craft professionals for the future.

Records from the Department of Labor's Bureau of Labor Statistics (BLS) show that less than 10 percent of the 7 million workers in our industry participate in a formal apprenticeship program. This ratio is down from five years ago. According to the BLS, approximately 7 million craft employees currently work in the construction industry; prior to the 2005 hurricane season, this number was predicted to grow to 7.8 million by 2012. It is also estimated that we will lose 1.4 million

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workers over the same period due to attrition, promotion, relocation to other industries, and retirement. According to the BLS, the construction industry is expected to rank among the economy's top 10 largest sources of employment growth. In fact, construction is ranked the fifth largest source of job growth following education and health services; professional and business services; leisure and hospitality; and retail.

In addition to the shortages shown by growth projections, it is estimated that 20 percent of our current workforce will retire in the next three years. To further complicate the crisis, the demographics of our current workforce are undergoing significant change. By 2012, the Hispanic segment of our overall workforce will grow from 12 percent to 15 percent. This is an increase of approximately 25 percent, a growth rate that is more than three times that of non-Hispanic workers. This segment of our workforce is predominantly Spanish speaking, which will increase demand for workers and managers fluent in both English and Spanish. Furthermore, the number of workers ages 35 to 44 will decrease likely causing a widespread shortage of middle managers. These changing demographics of our work-

force will create challenges and financial impact for our industry. In total, we will need to recruit and train 275,000 workers per year (180,000 for growth, 95,000 for attrition) for at least the next 10 years.

According to a Construction Industry Institute research study conducted in 2000, *Attracting and Maintaining a Skilled Construction Work Force*, craft workers believe their fellow workers leave the industry because of pay, lack of permanent employment, poor safety, poor treatment, and poor working conditions. This impression results in fewer young people wanting to enter our industry, which is a prime contributor to our current workforce crisis. Additional factors include wage rate perceptions and/or realities, desire for less mobility, increased licensing mandates and, most importantly, relatively low participation in formal training across the industry. The cyclical nature of the construction economy has also contributed to the situation. The industry has historically survived the ups and downs of the national economy, but over the last 25 years, the industry's ability to retain workers during the recessions and its ability to rehire them afterward has declined. During the recent economic

downturn that affected the industrial market, many skilled craft workers left the industry. As the industrial market continues its recovery, our inability to bring back the lost workers will increase the craft shortages. According to a source at FMI, "People in the construction industry are either unaware of the impact of the situation or bury their heads in the sand to not deal with it."

The supply of potential candidates for our jobs is decreasing, and that may not change for many years. The National Association of Business Economics reported in 2005 that 10 percent to 35 percent of all businesses had worker shortages, so competition for these workers will be stiff. Our competitors for these candidates are other industries, like nursing, automotive, manufacturing, hospitality, services and retail. Unfortunately, the mindset is that the competition for our future workers is within our own industry - the other contractor or association, the union or the open shop. The reality is that the battle to attract our future workforce is with other industries that are all competing to attract the same pool of talent.

Today, 50 percent of high school graduates go to college, but only half

of these students earn a degree. The result is that 75 percent of our high school graduates are looking for jobs that do not require a college degree. Unfortunately, we are not attracting them to our industry. It is essential to our future that we reach out to our young people and expand career-training opportunities to them.

The link between industry and academia is extremely important. The educational system in general is not preparing young people for the career opportunities that are available in our workforce. An excerpt from the study titled Workforce 2020: Work and Workers in the 21st Century indicated that in 1970, 55 percent of the U.S. population had completed high school. Only 11 percent had completed a four-year college degree. In 2000, 83 percent of the population had a high school diploma, and 25 percent had graduated from college. The study also evaluated what types of jobs would be available in 2020, in comparison to what ninth graders were studying. The study estimated that 28 percent of today's

ninth graders will complete college, but only 20 percent of the jobs will require a four-year degree. Conversely, 40 percent of today's ninth graders will have dropped out of school, or will have only the skills required for 15 percent of the jobs. The remaining 32 percent of the population will have the necessary training that 65 percent of the jobs will require. Industry working closely with schools can prevent this astounding shortfall in educational preparation.

The challenges make our mission clear. We must invest in the development of our workforce. Twenty years have passed since the Business Roundtable (BRT) published the Construction Industry Cost Effectiveness Project outlining the problems with training in open shop construction. Since then, contractors like Austin Industrial, BE&K, Bechtel, Fluor Corporation, Halliburton/KBR, Sundt Corporation, The Industrial Company -TIC, and Zachry have come together to create the National Center for Construction Education and Research (NCCER). In 1995, repre-

sentatives from leading construction companies, national trade associations, manufacturers, and academia came together to establish a quality standard for training and certification in various sectors of the construction industry. Business and organizations usually in competition with one another forged partnerships for the common goals of investment in training for craft workers, safety of all construction craftspeople, improvement of the industry's image, and a means of career advancement. Their efforts resulted in the establishment of a nonprofit education foundation, NCCER, headquartered in Gainesville, Fla. and affiliated with the University of Florida's Rinker School of Building Construction. As a result of this effort, the industry now has consistent guidelines for delivering training, the finest industry-driven curriculum in the world, uniform quality competency testing, and portable, industry-recognized credentials. NCCER was created specifically to address the workforce shortage facing our industry and to build awareness of rewarding construc-

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tion career opportunities. Students can turn their goals into reality by following NCCER's structured career path.

As an industry, we now have wide access to credible, quality training programs. But, even in today's tight labor market some contractors still ask why they need to train and owners still ask why should they support training. The answer is simple. It benefits everyone, the worker, the contractor and the owner.

To evaluate and improve the competence level of our current workforce and properly prepare new entrants, we must dramatically increase our workforce development efforts. Owners must be more aggressive in requiring contractors to participate in these efforts and in ensuring that appropriate and safe working conditions are provided. When owners enforce these requirements on a broad scale, contractor participation will rise.

Funding for these efforts is also a key issue. Cents-per-hour funding through collective bargaining agreements has been the backbone of union training for many years. Through owner supported training in a number of industrial communities and NCCER's National Training Service Agreement, cents-per-hour funding for open-shop training has moved forward. Programs are in place that make open-shop cents-per-hour funding a viable mechanism, but the missing link is still broad owner support. These programs provide verifiable processes for managing cents-per-hour funds, but only the most forward-thinking contractors and owners participate. Owners can also help reduce the effects of the workforce shortage by working together. Coordinated planning and scheduling at the local level would create a better supply-demand balance in local labor markets.

We must build strong partnerships and alliances for developing our current and future workforce. To support this, industry needs to partner with educators in every community to ensure that students are learning the skills needed and that training programs are fully funded and staffed. Students who want jobs in our industry must be able to acquire the necessary skills to succeed.

In closing, we as an industry still have a lot of work to do to solve our workforce shortage crisis. Our image affects all of us equally. Right now,

it is one of the greatest deterrents to young people evaluating construction as a career choice. We must come together on this issue and turn our image into our greatest asset. The first step we can all take is a commitment to ethics, credibility, and safety performance. There are many individual associations, organizations, contractors and communities who have developed effective image initiatives, but we must move away from fragmentation and get behind an industry-wide appeal. The industry needs to work together to support a nationwide campaign that reaches all grade levels and tells them

about the opportunities we have to offer. To complement that, we must also help parents and guidance counselors change their perceptions about us. Finally, we must publicize the great strides our industry makes on a daily basis so that the public is aware of our positive work.

Excerpted from the White Paper "The Skilled Workforce Shortage." The full White Paper can be viewed on the National Center for Construction Education and Research's website at www.nccer.org.



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