Economic Environment

Immigration, Labor Shortages & U.S. Construction Markets

by Al Schuler

A case for getting involved in order to address the need for better education and skill standards.

As discussed in last month's column, according to Dr. Ira Wolfe, author of *The Perfect Storm Fact Book,* we are witnessing the beginning of a "perfect labor storm."[1] Globalization and demographic trends are colliding, and the result is a growing shortage of workers who possess the right skills to do the available jobs.

Increased global competition requires smarter, more flexible workers to relentlessly increase productivity and produce higher value products and services (if we, in the high wage countries, are to maintain our high standard of living). But there just aren't enough of the "right workers" to fill the demand. While many workers continue to use skills learned in an industrial age, demands have changed, requiring new and more education-dependent skills for service and knowledge jobs.

For example, manufacturing sector employment rates and the labor pool demographic have changed over the last five decades. In 1955, 41 percent of the U.S. workforce was engaged in manufacturing, construction and mining. By 2005, those industries employed less than 16 percent of the workforce, while the service-producing industry sent paychecks to 42 percent of workers. Despite the need to change, two-thirds of employers said that public school students don't have the basic cognitive skills to succeed. One-third of employers said the recent high school graduates had poor writing skills and 23 percent had poor math skills. A third also said that young workers have problems with punctuality and attitude (Yankelovich Partners, 2005).

at a glance

- A building boom, steady influx of new building materials, and a shortage of skilled workers to properly install them are factors that have collided.
- Between 1955 and 2005, manufacturing, construction and mining jobs fell 25 percent.
- Nearly one in five construction workers were born outside the U.S and it's estimated that immigrants make up over 25 percent of the construction workforce in CA, NV, TX, DC, AZ, NY, FL and NJ.
- The U.S. Bureau of Labor Statistics estimates that the construction industry will need to add 241,000 new jobs annually through 2014 for new business and replacing retirees.
- To navigating this climate, get involved. Builders are looking for "supply partners" that will help them provide training and other resources.

The Immigrant Factor

Although native-born Americans make up 81 percent of the construction workforce estimated at 12.5 million, almost one in five construction workers were born outside the U.S. Almost one-third of the lower paying jobs such as construction laborers are held by immigrants. Further, it's estimated that immigrants make up over one-quarter of the construction workforce in these states: California, Nevada, Texas, Washington D.C., Arizona, New York, Florida and New Jersey.

Furthermore, there are many illegal immigrants employed in construction and other industries. Some estimate as many as seven to eight million immigrants are here illegally working in construction, textile manufacturing, agriculture, hospitality and food service industries. Yet immigration by itself won't solve the skilled labor shortage problem facing the construction industry. Why is this happening? How is the construction industry responding? And what are some strategies component manufacturers can use to successfully navigate this environment? In last month's article, we discussed worldwide demographic trends and increasing global competition, and how this is impacting labor supply and competitiveness for many countries and their industries. This month, we focus on the domestic construction industry.

Construction Industry

For the past five years or so, a building boom, steady influx of new building materials, and a shortage of skilled workers to properly install them are three factors that have collided (Kathy Price-Robinson, APA's *Engineered Wood Journal,* Spring 2000).

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An NAHB Research Center research report offered 13 potential causes of labor shortages in the homebuilding industry:

1	Demographics	aging population
2	Employee benefits	not good
3	Wages	not keeping pace with other skilled occupations, hampering recruitment
4	Job security	not very secure, high turnover, unstable
5	Working conditions and image	not good
6	Vocational training	the U.S. lacks adequate vocational system for training in construction trades; many more registered apprenticeship programs for other occupational fields other than construction trades
7	Poor image	perceived poor working conditions
8	Seasonal and cyclical conditions	creates volatility in labor demand
9	Fragmented industry	makes it difficult to implement solutions
10	Poor benefits	lower benefits than other industries
11	Low innovation	lack of innovation in the housing industry perpetuates installation, safety problems; builders reluctant to try new innovations due to liability issues
12	Need for training	lack of training opportunities in the building trades aggravates labor shortages, contributes to poor quality of existing labor
13	Problems in the trades	short supply of carpenters, plumbers, siding installers, roofers, electricians, masons

Table 1. (Source: *Labor Shortages and Productivity in the Home Building Industry,* 1998, National Association of Home Builders (NAHB) Research Center.)

Eight years later, most of these problems still persist, and many would argue that without immigration, things would have gotten much worse.

The U.S. Bureau of Labor Statistics estimates that the construction industry will need to add 241,000 net new jobs annually through 2014 for new business and filling openings annually for retiring baby boomers and others (net replacement demand). See Figure 1 above.

Builder Response to Labor Shortages

Many builders have responded to the labor shortage issues by asking component manufacturers to componentize more of the structure in the factory. That is, using more components like engineered wall systems, engineered floor systems, and of course, most switched to roof trusses over the past three decades (see Figure 2).

APA - The Engineered Wood Association recently completed a survey of wall panelizers. When asked why builder customers used wall panels, "84 percent said lack of labor and 76 percent said high jobsite labor cost." In addition, many builders are asking their suppliers to provide more installed sales and services such as windows, doors, and in some instances, complete framing packages.

A related trend known well to the building components industry is consolidation. The top ten U.S. builders now command over 20 percent of the single family home market in the U.S., up from ten percent a decade ago. At the same time, we are seeing more consolidation at the distribution level (contractor yards and big box retailers), and at the primary and secondary building material manufacturer level (sawmills and component manufacturers respectively).

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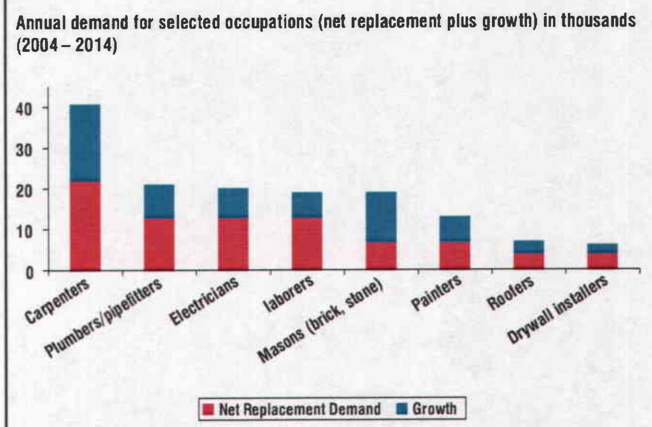

Figure 1. Total annual replacement demand (net replacement demand plus growth) for selected construction occupations (Source: U.S. Bureau of Labor Statistics, Occupational Projections and Training Data. Visit www.bls.gov/emp/optd/optd.pdf).

	1997		2004		2005	
Stick Built	1,146	78%	1,365	70%	1,425	69%
Panelized	115	8%	260	13%	270	13%
Masonry	145	10%	260	13%	295	14%
Modular	45	3%	43	2%	41	2%
Steel Frame	10	1%	9	.5%	17	.8%
SIPs	5	.3%	9	.5%	10	.5%
Other	8	.5%	10	.5%	10	.5%
Total	1,474	100%	1,956	100%	2,068	100%
Manufactured	354	19%	130	6%	147	7%
Grand Total	1,828	100%	2,086	100%	2,215	100%

Figure 2. Homebuilding Methods Based on Wall Structure. (Source: APA - The Engineered Wood Association, 2006.)

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What's more, the evolution in construction methods and materials, computer custom designed homes, and green building trends make the necessity of skilled labor even more relevant. Future construction workers will need more skills as the industry itself becomes more "high tech" (*Innovations in design & construction,* A. Lindburg, Dovetail Partners, 2006).

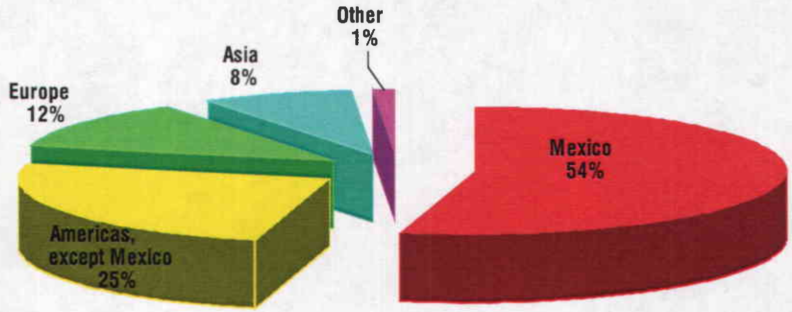

Figure 3. Immigrant Workers in U.S. Construction (Sources: N. Siniavskaia, NAHB, www.nahb.org, American Community Survey, 2004).

Immigrant Workers in U.S. Construction

Today, only four percent of our native-born population is employed in construction compared with seven percent of our immigrant population. Even more dramatic, almost 13 percent of Mexican-born immigrants are in construction. The three states with the highest number of housing starts last year were Florida, Texas, and California (based on building permits issued). Together, these states accounted for one-third of the conventional homes built last year (excluding HUD code) and over one-third of the construction workforce in these states were immigrants.

Where do the immigrants come from? Almost 80 percent come from the Americas (North, Central and South) with over half coming from Mexico alone (see Figure 3). This has implications for builders and their supply partners. Language and customs issues are important so if you're using immigrant labor, chances are good that you may have to provide some language and customs training.

To date, the majority of the immigrants hold the lower paying jobs that require fewer skills. Thirty-two percent of construction laborers are foreign born while 22 percent of carpenters are foreign born—laborers and carpenters account for 30 percent of overall U.S. construction employment.

Another issue is that illegal immigrants are estimated to make up five percent of the U.S. workforce, but in construction, undocumented workers account for 14 percent (Pew Hispanic Center and NAHB *Builder Magazine,* July 2006.) If you use immigrant labor, be aware of the volatility of the sit-

"Management Choice" Suggestions

(Source: D.M. Atwater & A. Jones, Pepperdine University, "Preparing for a Future Labor Shortage")

(1) be prepared to [do what it takes] to attract and retain employees—this implies maintaining profitability and efficiencies in production, distribution, and marketing to facilitate such a strategy; **(2)** look for substitutes—interns, part timers, immigrants and even retirees for some skills; **(3)** distinguish your organization to attract and retain employees and customers—offer a good health insurance program and distinguish your organization to your customers (homebuyers) by offering better quality products at competitive prices; **(4)** adjust programs to fit the changing market—do your SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis often so you are matching relevant strengths with opportunities; **(5)** be prepared take advantage of new sources of employees—e.g., immigrants; **(6)** retain and build flexibility in your workforce—develop employees with multiple skill sets; and **(7)** maintain financial stability.

uation and develop options should immigration laws go in a direction that is unfavorable to the increasing use of immigrant labor.

Get Involved

In July 2006, the Home Builders Institute (http://hbi.org) published findings that identified six key areas where improvement is necessary to address the skill shortage in the construction industry:

1. the industry's image as a professional career choice is poor;
2. recruitment practices are fragmented;
3. skill training and career development are inadequate;
4. wages and benefits must be competitive;
5. the industry lacks adequate resources for training; and
6. the industry is hampered by some laws and regulations.

Consequently, builders are looking for "supply partners" that will help them navigate some of these issues. Additional training efforts and the creation of national skill standards will receive increasing attention by all building material trades. Visit **Support Docs** at **www.sbcmag.info** for some examples.

Associations will be increasingly called upon to help builders and their building material suppliers deal with these issues. There are additional things that component manufacturers can do to mitigate the downside impacts of a worsening skilled labor shortage. First, recognize that it is a long-term problem; it will probably get worse before it gets better, and you will have to get involved (as identified above) to deal with it. To some degree, you're going to have to accept the increasing challenge of training your employees. Regarding the immigrant situation—because Hispanics make up 22 percent of the construction labor force (U.S. Census Bureau), builders and their suppliers including component manufacturers need to offer training in both language and jobsite skills and this will result in a more efficient workforce.

Finally, the largest builders are beginning to exercise their "clout" as never before. They haven't had to worry as much about costs for the past three years; but, in today's market, it is at the top of their mind. They want to cut out middlemen and buy from the factory/mill and have the mill provide local inventories. They aren't taking the housing downturn lightly, so, component manufacturers, beware of the big builders on the prowl to squeeze efficiencies from the entire supply chain. **SBC**

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