CTE Students See THE GREEN in New Construction Jobs

PHOTO COURTESY OF MONROE BALDWIN—HOME BUILDERS INSTITUTE CARPENTRY INSTRUCTOR

BY STEVEN KRAMER AND JOHN FOSTER

The construction industry has long been a leader in predicting economic prosperity and in responding to customers' needs. The last few years have been no exception, especially for the National Association of Home Builders (NAHB). In these last few years, the association has managed to assemble the only ANSI-approved standards for green construction in the nation. During this time and with an eye toward the future, NAHB and its workforce development arm, the Home Builders Institute (HBI), have been assessing the growth opportunities of the industry and preparing for the demands of a green economy.

Green construction is one aspect of the building sector that continues to gain steam. "Green" can take many forms, both structurally and operationally, including the reduction of waste, pollution and the impact on the environment; more efficient use of energy, water and other resources; and using products that protect the health of the occupants while creating a safe environment. While new technologies are constantly being developed to complement current practices in creating greener structures, the overarching concept is that green buildings are designed to reduce the impact of the building to the environment and to the people who occupy the space. Looking ahead, as new approaches to green construction are refined and become more accessible to consumers, the corresponding demand for skilled workers will grow.

The Growth of Green

The genesis of the green movement took root in the 1970s as a response to the oil,

gas and energy crisis. At that time our country was searching for a way to be less dependent on oil-related and energy-rich products, and manufacturers responded to consumer demand with an array of energy and environmentally sensitive products—including products for homes and home construction. Today, the economics of the green sector have taken root and are creating new jobs. In the last five years alone, the green housing market has grown from $2 billion in 2005 to almost $60 billion in 2010, according to estimates by NAHB and McGraw-Hill Construction.

To further stimulate jobs in this emerging industry, the Obama Administration designated $5 billion in the American Recovery and Reinvestment Act of 2009 to weatherize more than 1 million homes through the Weatherization Assistance Program. In addition, legislation currently in Congress is expected to fund the new Home Star program. The Home Star legislation provides business opportunities for homebuilders, remodelers and contractors through financial incentives given to consumers for home weatherization and retrofitting projects.

The housing market is primed for these improvements, as many of the 128 million homes in this country were constructed before modern energy and building codes were established. These homes often suffer from performance problems ranging from excess energy consumption and inadequate thermal comfort to indoor air quality issues. NAHB estimates that every $1 billion in new remodeling and home improvement activity generates 11,000 jobs, $527 million in wages and salaries, and $300 million in business income.

For the homebuilding industry, green construction is no longer a trend, but the key to the future. In addition to new careers, such as weatherization specialists and solar panel installers, there has been a more general shift to green building practices across traditional trade areas. This has created a number of different career pathways for students interested in pursuing a future in green building. Furthermore, these jobs are high wage and in high demand due to the shortage of workers skilled and trained to fill them.

Creating a Pipeline of Green Construction Workforce

To meet the growing demand for a greener workforce, HBI has incorporated environmentally friendly and energy efficient practices into all of its curriculums. Through its Residential Construction Academy (RCA) Series, HBI is providing a direct link between education and training programs and the needs of the home building industry. The instructional materials in the RCA Series enable students to learn general green building principles that are matched directly to the National Green Building Standard, the green building rating system developed by industry experts with NAHB for all residential construction. The curriculum takes students through key green building competencies they will need, including weatherization, solar installation, using salvaged and recycled-content materials, and recycling construction waste.

Upon mastery of the curriculum, students are eligible for certification, which is administered through NOCTI, formerly the National Occupational Competency Testing Institute and the leader in technical skill assessment. The industry-recognized certification is available in specific trade areas for secondary, postsecondary and incumbent worker levels. As with the RCA Series curriculum, all certification tests are based on national skill standards set by a combination of subject matter experts from across the country, including NAHB industry professionals and educators. This certification allows students to be more marketable in the industry and in emerging green building careers because they can demonstrate to future employers their skill in construction procedures and competencies. This collaboration also provides an added advantage of providing aggregated and disaggregated data to schools to continually improve instruction. A number of additional certifications are planned between NOCTI and NAHB in emerging career areas and can be found by visiting **www.nocti.org**.

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A Great Partnership

Career and technical education (CTE) programs are well positioned to support the building industry and to create a pipeline of workers trained to meet its needs, from introducing students to new career possibilities in green building to providing specific job training. By partnering with the building industry, CTE programs across the country will be able to equip their students with the knowledge and skills necessary to take advantage of these sustainable, high-growth, green collar career opportunities. T

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