## NAHB HOUSING POLICY BRIEFING

## ACE PROGRAM GIVES IOWA HIGH SCHOOLERS BUILDING EXPERIENCE

he partnership among an Iowa community college, two HBAs, and a committed group of building industry mentors is opening doors to students interested in construction and engineering careers—and opening the eyes of the students' parents about how rewarding these careers can be.

ACE, short for Architecture, Construction and Engineering, is a national program. In Iowa, it's run by the construction management department at Kirkwood Community College in Cedar Rapids. The school draws from a seven-county area that includes 32 school districts and 40 high schools.

Four years after its launch, ACE Academy of Eastern Iowa has active programs in 24 of those 32 districts. Student projects have included tree houses, a baseball dugout (complete with press box), a "tiny house" built from a former storage container, and a 1,500-square-foot STEM (science, technology, engineering, and math) student center.

For the STEM center, the school district only had to come up with \$45,000 for the \$400,000-plus project because local builders and businesses gave generous in-kind donations and supplied building products. "We have quite a bit of local and regional buyin," said Joe Greathouse, assistant professor of construction management at Kirkwood.

The ACE program, which now serves an average of 500 students per year, can be replicated wherever a core group of builders and other construction industry professionals, suppliers, schools, and HBAs are willing to work together, Greathouse said.

Most high schools already had woodshop or technical education classes as part of their curricula. The problem, though, was that typical projects such as birdhouses and bookcases weren't particularly inspired or challenging.

To enliven the curriculum, the college gathered a group of teachers and invited HBA representatives and industry professionals to meet with them. Together, they discussed what kinds of skills kids need, and got rid of the boring stuff.

Working with Project Lead the Way (PLTW), an organization that trains STEM teachers to encourage problem-solving strategies and critical thinking, the group created a four-year, two-pronged curriculum path. The ACE kids take construction technology, materials processing, and architecture classes the first and second years and join PLTW students for a civil engineering and architecture course during their junior years.

In their senior years, the ACE students take classes in commercial or residential construction. Both tracks offer college credit. **PB** 

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