



The STEM Movement

By CRYSTAL VILLARREAL

Communities in Oklahoma rally behind diversifying education and building a better workforce.

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Known as Oklahoma's "STEM City," Lawton is increasing student interest in STEM education by raising awareness of its importance throughout communities. "Parents often call and ask me how they can contribute," says Barry Albrecht, president and CEO, Lawton-Fort Sill Economic Development Corporation. "We have a lot of technology-based companies located here, and they're helping to drive that need for a qualified STEM workforce."

It's not just Lawton that is focusing on promoting STEM education among middle and high school students communities throughout the state are heeding the fact that education and economic development go hand-in-hand. Tulsa, Shawnee and Oklahoma City all have initiatives to promote education in math and science programs.

STEM City

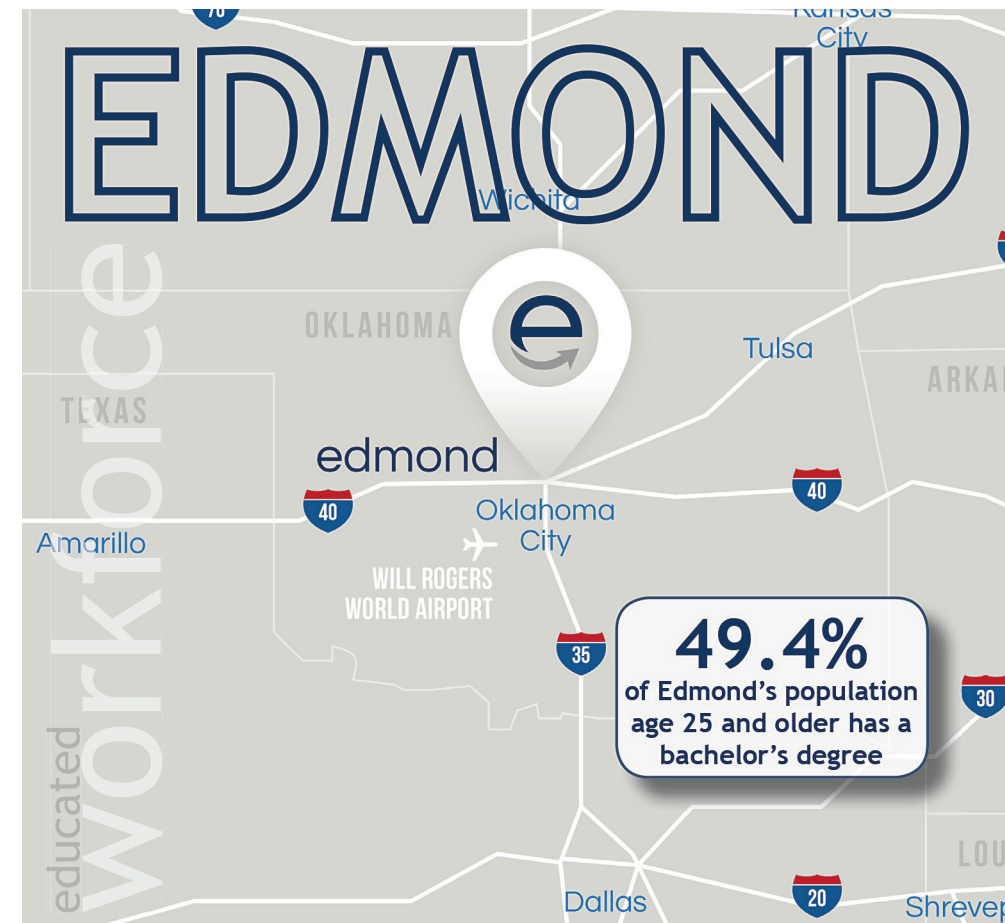
"We're preparing our young people for high-tech jobs and diversifying our economy," says Albrecht. Some of the most advanced technologies are being developed at Fort Sill, he says, where the military and schools are working together to bring STEM education into communities. The military base impacts nearly 26 districts throughout the state.

STEM education is the future. Almost every job in today's world — from food processing to automobile parts — is related to math and science. "Our new focus has guided us into new target markets and target industries," says Albrecht. "We're getting more attention in information systems and software development. It's industries like these that face a workforce challenge, and we're meeting that need."



The Oklahoma Department of Career and Technology Education offers high school and adult level programs in various STEM fields.

Photo courtesy of the Oklahoma Department of CareerTech



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— Barry Albrecht, *President and CEO*,
Lawton-Fort Sill Economic Development

Great Plains Technology Center in Lawton offers pre-engineering and biomedical science programs that have been in existence for nearly 10 years. Great Plains also has strong computer science programs that have proved successful in preparing students for continued education and entry into the workforce. The center’s pre-engineering courses are offered at all three Lawton high schools.

“Fifteen years ago businesses were looking for incentives, but today the top question is workforce and education,” says Tom Deighan, superintendent of Lawton Public Schools. “My heart’s desire is that [Lawton] becomes recognized as a premier educator and that every one of our students graduates with a career, whether it’s off to college or a technical degree. We need people who are adaptable, and we want to become a graduation factory.”

Primed for Innovation

GE recently sponsored a weeklong STEM program for up to 50 students at the Oklahoma School of Science and Mathematics (OSSM) and launched an open innovation challenge.

The initiatives are part of STEM Empowers OK, and will invite students from schools throughout the state to share ideas. Much of the

funding from the GE Foundation will support internships, mentoring and scholarship opportunities for Oklahoma students, as well as a new summer GE STEM Fellowship program for Oklahoma teachers. The Oklahoma Center for the Advancement of Science and Technology (OCAST) will manage the Open Innovation Challenge.

“Through STEM Empowers OK, we will engage a new generation of scientists and engineers across Oklahoma,” said Jeff Immelt, chairman and CEO, GE. “We could not ask for better partners than OCAST and OSSM. These organizations support new entrepreneurs and future scientists and engineers who are motivated to solve the world’s toughest challenges.”

GE’s Global Research Oil and Gas Technology Center in Oklahoma City will be the company’s main source of involvement.

The STEM bug is spreading throughout the state due to many of the technology and science companies that are based there, driving achievement to new levels. In Lawton, the graduation rate recently exceeded the state average.

“We’re proof of what’s possible,” Deighan says, “when a community rallies around education.” 