

Energy for Learning: From Education to Employment



Human Energy®



Chevron invested more than \$100 million in education over the last three years in the U.S. and has pledged an additional \$30 million through 2015 to support STEM education.



Cover photo: Bakersfield (California) High School Project Lead The Way class demonstrating Vex robotics

Inside cover photo: Dublin (California) high school students participating at the Bay Area Science Festival

A National Imperative

Few factors are more important to future U.S. competitiveness and innovation than education.

The new global economy demands a robust workforce, flush with know-how in science, technology, engineering and math (STEM). That's why ensuring students today are qualified for the jobs of tomorrow is vital to our nation's future economic competitiveness.

A healthy STEM education pipeline spanning the years from kindergarten through higher education is critical to producing a workforce that can compete in the global marketplace. As a nation, we must prioritize training the future scientists, engineers, technologists and mathematicians needed to fuel innovation, address grand challenges and help maintain U.S. economic standing.

Education Fast Facts

- 20 percent of all U.S. jobs - 26 million positions - require knowledge in at least one STEM field.¹
- The number of STEM jobs is estimated to grow 17 percent between now and 2018. For all other fields combined, job growth is estimated to be only 9.8 percent over the same time period.²
- Approximately 75 percent of U.S. students are not proficient in math when they enter high school.³
- Less than one-third of 2011 U.S. high school graduates are proficient in math.⁴
- STEM jobs consistently earn a wage premium of up to 26 percent more than workers in non-STEM positions.⁵

¹ Source: <http://www.brookings.edu/research/reports/2013/06/10-stem-economy-rothwell>

² Source: <http://meteorology.rutgers.edu/STEM.pdf>

³ Source: http://www.nap.edu/openbook.php?record_id=13158&page=3

⁴ Source: http://www.hks.harvard.edu/pepg/PDF/Papers/PEPG11-03_GloballyChallenged.pdf

⁵ Source: <http://www.bls.gov/opub/mlr/2011/05/art1full.pdf>



Students at Chevron-supported STEM education events



How Chevron Supports America's Future Innovators

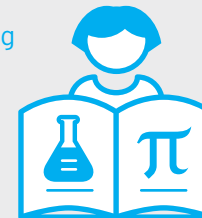
Our commitment, at every stage of education

Chevron champions STEM education in the U.S., from K to 12 and beyond. Through our programs and strategic partnerships, we help students and teachers get the tools and resources they need to take advantage of every opportunity STEM offers. Because smarter kids today will lead to a more competitive America tomorrow.



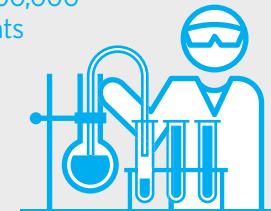
Chevron Partner: Achieve

Promoting education for critical thinking and problem solving



Chevron Program: STEM Zone

Bringing STEM to life for over 100,000 participants



Chevron Program: University Partnership Program

Supporting 94 U.S. colleges and universities through scholarships, funding, and upgrades



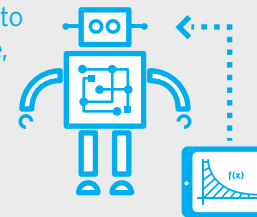
Chevron Program: Fuel Your School

Over 17,000 classroom resources funded in 3,000 schools through DonorsChoose.org



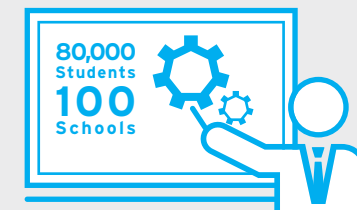
Chevron Partner: The Fab Foundation

Training tomorrow's innovators to build, make, and do in "Fab Labs"



Chevron Partner: Project Lead The Way

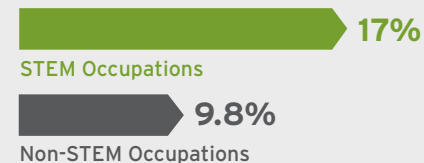
Students solving real-life challenges through engineering curriculum



STEM education yields greater opportunity

STEM-related roles are growing at nearly twice the pace of all other fields combined. For students trained in STEM, this means more job openings. It can also mean earning a premium wage; STEM workers consistently make up to 26 percent more than non-STEM workers.

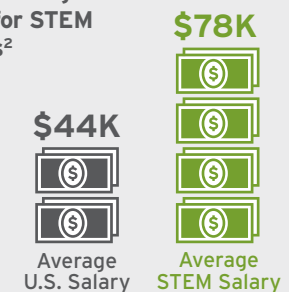
Faster Growth for STEM Roles from 2008–2018¹



¹ Source: <http://meteorology.rutgers.edu/STEM.pdf>

² Source: <http://www.bls.gov/opub/mlr/2011/05/art1full.pdf>

Higher Average Salary for STEM Workers²



Supporting the STEM Pipeline

At Chevron, we believe education is a building block for economic development. We know that an educated and skilled workforce leads to growth not only for our business but for the communities where we operate. That is why we support education at every stage – from early education through employment.

Our approach is one of partnership – by working with specialized and innovative organizations we can dramatically expand the impact of our investments and collectively make each other stronger. We work with nonprofit organizations, education specialists, government officials and community leaders to increase access to, and the quality of, education and career and technical training for students.

We take a holistic approach to supporting education. We believe it's important to both inspire students to pursue STEM careers and to provide students access to rigorous, hands-on curriculum which will help ensure that they graduate college and are career ready. We also support teacher training, classroom resources and out-of-school activities and encourage the adoption and implementation of the Next Generation Science Standards (NGSS), education standards that will integrate engineering, technology and the engineering design process into instruction in K-12 classrooms. Beyond K-12, we work with community colleges to train the local workforce and have robust partnerships with universities designed to strengthen faculty, curricula and student development.

Through our partnerships, we support programs that bring the engineering design process to life and teach students

how to identify problems, build prototypes and test solutions themselves – processes our engineers use in the field every day. Equipping students with real-world expertise, critical thinking and leadership skills is an important part of building a smart, adaptive workforce. It's also a foundation for economic growth.

Chevron's Commitment

To help ensure we are prepared today for the challenges we face tomorrow, we have invested more than \$100 million in education over the last three years in the United States. This work has enhanced the educational experiences of more than 500,000 students in the U.S. Building on that success, we have expanded our efforts by pledging an additional \$30 million between 2013 and 2015 to support STEM education efforts nationwide.

This commitment will provide resources to bring our total support to Project Lead The Way's rigorous engineering curriculum to over 100 schools and build fabrication labs in areas where we operate in the U.S. It will support adoption and implementation of the NGSS, which we believe play a vital role in integrating the engineering design process into science instruction in states across America. Our support and partnerships go far beyond just writing a check; we work with partners to help evaluate success, amplify their voices and connect them to additional resources. We provide industry experience that helps meet future workforce needs. Our employees also serve as mentors and role models for students in local communities.

Student Spotlight: Austin Manzella



Meet Austin Manzella – outstanding STEM student and future engineer. Interested in engineering since second grade, Austin was able to take full advantage of Chevron's comprehensive support for STEM in his hometown of Bakersfield, California. In high school, Austin enrolled in the Chevron and Project Lead The Way "Pathway to Engineering" course. He also took college-level STEM courses through the Chevron High School Academy and then gained further experience through Chevron-supported STEM summer research programs at California State University, Bakersfield. All three of these programs provided Austin with the resources, tools and experiences to solidify his interest in becoming an engineer. Today, Austin is enrolled at Montana Tech of the University of Montana with the hope of one day working for a company like Chevron.

Our Core Education Partnerships

Project Lead The Way

Chevron works with **Project Lead The Way** to bring rigorous, project-based engineering curriculum to more than 100 schools in seven states across the country, reaching more than 80,000 students. In 2013, Chevron was the first corporation to sign on to Project Lead The Way's National Grow Campaign, pledging an additional \$6 million of support from 2013 to 2015 to bring Project Lead The Way curriculum to schools in California, Louisiana, Mississippi, West Virginia, Ohio, Pennsylvania and Texas.

The Fab Foundation

Chevron partners with **The Fab Foundation** to bring fabrication labs (Fab Labs) to areas where Chevron operates. A Fab Lab consists of a suite of digital fabrication and rapid prototyping machines, including a 3-D desktop mill and scanner, an electronics work bench, a 3-D printer and the accompanying computers and software for design, programming and machine communications. These applied STEM learning environments enable students to follow their natural curiosity about how things work on a journey through

science, technology, engineering, and math. Working in Fab Labs, students can develop the critical thinking, problem solving and analytical skills needed to be future innovators.

Achieve

Chevron supports the Next Generation Science Standards (NGSS). These internationally benchmarked standards aim to provide the science education needed to prepare technologically literate students for college and careers of the future. Built on the foundation of systems thinking, the engineering design process and the procedures that scientists and engineers use every day, the NGSS will enable students to analyze problems and build solutions as part of their K-12 science, technology and math education.

That is why we collaborate with **Achieve** to support NGSS adoption and implementation across states and work to align programs that support quality science education.



Ninth graders experiment with block combinations to form a perfect cube in a Project Lead The Way classroom at St. Martin High School, Ocean Springs, Mississippi

Techbridge

Chevron partners with **Techbridge** to inspire girls' passion for science, technology and engineering by supporting the nonprofit's after-school programs, student mentoring efforts, and STEM summer camps. We also provide field trips to our facilities so girls can see first-hand the career opportunities in STEM. A 2013 evaluation of Techbridge's programs found that 89 percent of participants surveyed said they feel more confident in science and 85% said they now find engineering more interesting.

Fuel Your School

Chevron and **DonorsChoose.org** collaborate on Fuel Your School, an annual program in which Chevron contributes \$1 to public schools for each fuel purchase of eight or more gallons made at participating Chevron and Texaco stations during the month of October. Since its inception in 2010, Fuel Your School has helped fund more than 17,000 classroom projects. In 2013, the program generated nearly \$7.1 million in 16 U.S. communities, benefitting more than 8,000 classroom projects and nearly 1 million students.

STEM Zone

Chevron's **STEM Zone** is an interactive mobile space for students, teachers and parents to learn how science, technology, engineering and math are connected to everyday lives. The STEM Zone has drawn thousands of visitors at science festivals and high-profile athletic events, including Chevron-sponsored Professional Golfers' Association Tour (PGA Tour) events, averaging more than 20 appearances a year.

Community Colleges

Chevron partners with community colleges in areas where we operate to provide technical training classes. For example, our refinery in Pascagoula supports the **Process Technology Program** at its local community college. Students are trained on equipment similar to that used at the refinery, and instructors include retired Chevron operators. Graduates of the program are prepared for employment in power generation facilities, chemical plants as well as the Chevron refinery. Many students also participate in internship opportunities at the refinery.

University Partnership Program

As part of our **University Partnership Program (UPP)**, we provide multifaceted support to more than 94 colleges and universities in the U.S. to help strengthen faculty, curriculum and student development. To this end, we provide scholarships and grants, funds for faculty positions, department gifts and laboratory upgrades. Between 2012 and 2013, Chevron hired more than 500 full-time professionals from UPP schools in the U.S.



Students studying butterflies, enabled through Chevron's Fuel Your School program, Richmond, California



Techbridge students experiencing the Chevron Visualization Lab in San Ramon, California

To learn more about Chevron's education initiatives, please visit www.chevron.com/education.

Also check us out on [Facebook](#), [Twitter](#), [LinkedIn](#) and [YouTube](#).

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