As a parent, you're probably wondering whether you will be able to afford the education required for your child's career. Fortunately, help is available from many sources.

The federal government and your state government offer grants and loan programs for higher education. Also, many private organizations, churches, temples, mosques, universities, schools, and civic groups have scholarship programs.

Ask your child's school counselor for more information, or visit these financial-aid websites:

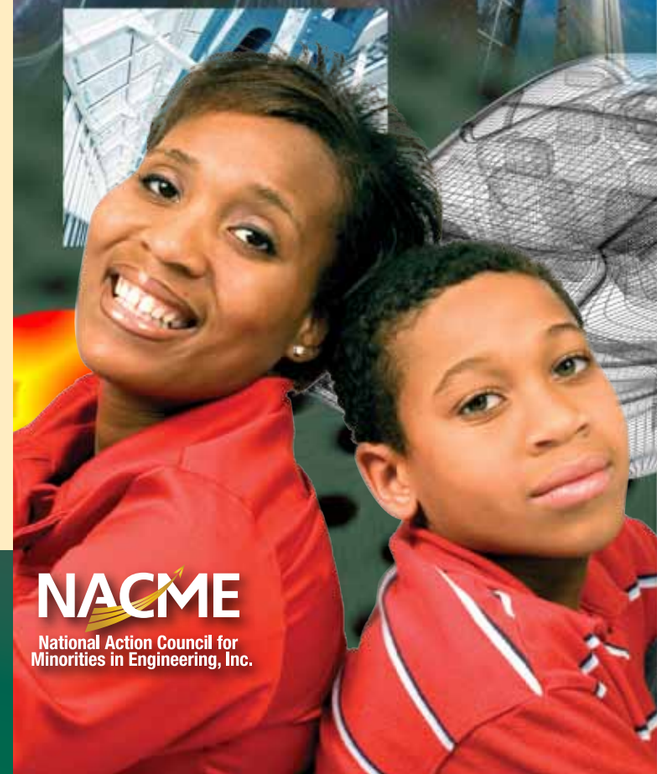
www.fafsa.ed.gov
www.finaid.org
www.nacme.org
www.nacmebacksme.org

NACME
National Action Council for Minorities in Engineering, Inc.

440 Hamilton Avenue, Suite 302
White Plains, NY 10601-1813
Phone: 914-539-4010
Fax: 914-539-4032
www.nacme.org

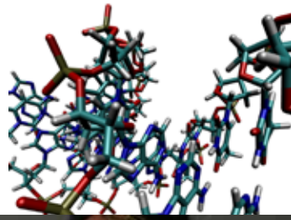
ENGINEERS HELP SHAPE THE FUTURE

PARENTS: ENGINEERING CAN HELP YOUR CHILDREN REALIZE THEIR DREAMS AND PROVIDE FOR THEIR FUTURE



NACME
National Action Council for Minorities in Engineering, Inc.

ENGINEERING



A Promising Future

When you imagine your children's future, you probably hope they find good jobs that will provide for them and their families. Maybe you see your child as a lawyer or a doctor, in a meaningful career that pays well.

Professions that are often overlooked are those in math, science, and engineering fields. Careers in these fields not only are in demand and well-paying, but also offer exciting opportunities for your child to make a difference in the world—designing groundbreaking technology, decreasing pollution, solving the energy crisis, saving lives, and making the world a better place.

Problem Solvers

Engineers, mathematicians, and scientists use math, physics, and related sciences to solve problems. People in these professions use many other skills as well. They must work adeptly in groups and communicate well. Perhaps their most important quality is a desire to make a difference.

ENGINEERING SPECIALITIES

Engineers focus on specific problems that affect the world. Here are some of the major branches of engineering:

Mechanical/Automotive

These engineers apply the basics of physics, mechanics, and thermodynamics to design machines. These machines include locomotive engines, motorcycles, washing machines, assembly-line manufacturing machines, bicycles, and hybrid cars.

Civil/Structural

Whereas mechanical engineers specialize in objects in motion (machines), civil and structural engineers focus on objects that are static, or stationary. They build roads, bridges, and buildings to withstand the elements of nature and human use.

Electrical

Electrical engineers apply the properties of atoms and electrons to deliver energy to the world. They design conductors, power stations, and generators. They also design more efficient and safer home wiring systems and are involved in the design of home appliances, cars, airplanes, computers, and microelectronics.

Chemical/Material

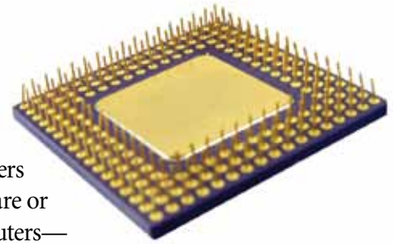
Chemical engineers use physics and chemistry to make new substances out of raw materials. Chemical engineers have been involved in the design of Gore-Tex, fleece, and other high-performance fabrics; they've turned corn into biofuels; they've developed high-performance plastics for water bottles and mugs; they've invented longer-lasting concrete; and they've mapped the genes in the human genome.

Aerospace

Aerospace engineers design planes, rockets, and spaceships. They apply principles of physics and mechanics to design safer, faster aircraft.

Industrial

Industrial engineers study processes. Using math and physics, they look at operations and make them more efficient. The context could be a car factory, a farm operation, or the way products are delivered around the country. They look for problems in the process and work to make the operation safer and more efficient, saving money and increasing productivity.

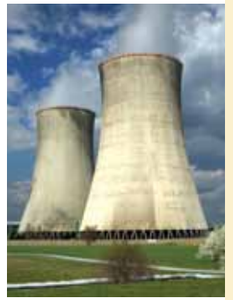


Computer

Computer engineers design the hardware or software of computers—they make the circuits run faster or write better programs.

Nuclear

Nuclear engineers oversee the process of splitting atoms to make energy. Nuclear engineers are also at work on one of the great engineering challenges of the modern age: nuclear fusion, which would be a much safer process than the nuclear fission currently being used.



Preparing for the Future

Has your child shown an interest in math and science? A curiosity about how things work? A desire to solve problems? Many programs are available to help channel your child's skills and creativity. The Academies of Engineering are new schools that focus high school students on careers in science, technology, engineering, and mathematics.

All engineering fields require a college degree, usually a bachelor's degree. So preparing for college is important. To help students do this, the National Academy Foundation (NAF), Project Lead The Way (PLTW), and the National Action Council for Minorities in Engineering (NACME) have joined forces to create small learning communities, starting with 13 pilot schools throughout the nation. These communities, the Academies of Engineering, also work to increase interest among minorities and women in science, math, and engineering careers, where they are underrepresented. See *www.academyofengineering.org* for more information.

These resources can help focus your child's interest and get him or her started on an exciting career path.

National Action Council for Minorities in Engineering
www.nacme.org
www.nacmebacksme.org

Engineering Your Life
www.engineeringyourlife.org

Project Lead The Way
www.pltw.org

Engineer Girl
www.engineergirl.org

Manufacturing Is Cool
www.manufacturingiscool.com

FIRST
(For Inspiration and Recognition of Science and Technology)
www.usfirst.org

Try Engineering
www.tryengineering.org

Engineers Without Borders
www.ewb-usa.org

Enchanted Learning
www.enchantedlearning.com/explorers