

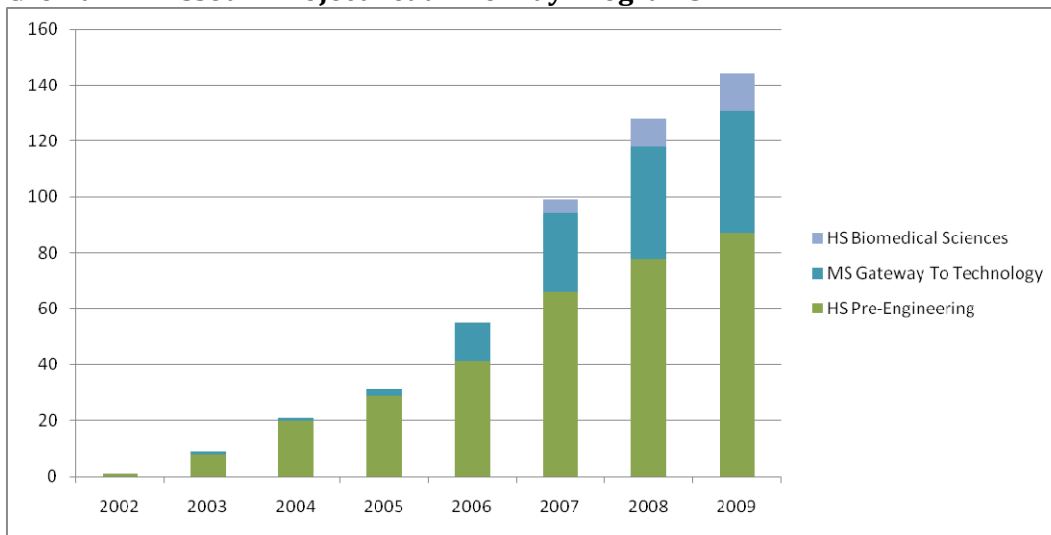
Project Lead The Way FACT SHEET

November 2009

Information about PLTW Biomedical Sciences program is available on the Missouri Department of Elementary and Secondary Education Web site at http://dese.mo.gov/divcareered/health_pltw_biomedical.htm

Project Lead The Way (PLTW) offers a dynamic high school program that provides students with real-world learning and hands-on experience. Students interested in engineering, biomechanics, aeronautics and other applied math and science arenas will discover PLTW is an exciting portal into these industries. The hands-on, project-based program engages students on multiple levels, exposes them to areas of study that they typically do not pursue, and provides them with a foundation and a proven pathway to college and career success in math, engineering, technology and science (METS) related fields.

Growth in Missouri Project Lead The Way Programs



Results

- PLTW alumni are studying engineering and technology at colleges and universities at rates approximately five to ten times the average of all U.S. students.
- They have higher retention rates in college engineering, science and related programs than other students in these areas.
- Approximately 97% of high school seniors who are enrolled in PLTW courses intend to pursue four-year college degrees or higher (the national average is 67%).
- Approximately 80% of PLTW's high school seniors suggest they will study engineering, technology or computer science in college (the national average is 32%).

PLTW Biomedical Sciences Program

The Project Lead The Way Biomedical Sciences program is an integrated high school program divided into four sections, each section building upon the previous. Students interested in math, science and the human body find the PLTW Biomedical Sciences program a great introduction to

the numerous medical fields, as well as teaching them how the skills they learn are used in the biomedical sciences. PLTW Biomedical Sciences augments existing high school science and math college preparatory programs to establish a solid background in biomedical science. There are 13 high school Biomedical Sciences programs running in Missouri high schools. The five pilot schools in Missouri and the first teachers trained at those schools are:

- Carthage High School/Technology Center, Carthage—Chris Adams
- Hazelwood East High School, St. Louis—Jean Hammer and Mary Jo Ruether
- Hazelwood West High School, Hazelwood—Dan Odom and Bobby Hughes
- Hazelwood Central High School, Florissant—James Wright
- Summit Technology Academy, Lee's Summit—Peggy Hinzman

PLTW Pre-Engineering Program

Presently, there are six courses in the PLTW High School Pre-engineering Program which include foundational courses (intro to engineering design, principles of engineer, digital electronics), specialization courses (computer integrated manufacturing, civil engineering and architecture, biotechnical engineering, aerospace engineering), and a capstone course (engineering design and development). There are 87 high school Pre-Engineering programs running in Missouri high schools.

PLTW Middle School Program

Gateway To Technology (GTT) consists of nine-week, stand-alone units which can be implemented in grades 6 – 8, as determined by each school. GTT harnesses the enthusiasm and energy of middle school students. The program focuses on showing, not telling, students how to use engineering skills to solve everyday problems. The curriculum exposes students to a broad overview of the field of technology. It includes such units as Design and Modeling, The Magic of Electrons, The Science of Technology, Automation and Robotics, and Flight and Space. There are 44 PLTW Gateway to Technology programs running in Missouri middle schools.

How To Join & Funding Info

Steps to a Successful Project Lead The Way Implementation for the 2010-11 School Year:

<http://www.pltw.org/How-To-Join.cfm>

Data on Biomedical Careers

Federal Data

Health care will generate 3 million new wage and salary jobs between 2006 and 2016, more than any other industry. Seven of the twenty fastest growing occupations are health care related. Job opportunities should be good in all employment settings.

Wage and salary employment in the health care industry is projected to increase 22 percent through 2016, compared with 11 percent for all industries combined (table 3). Employment growth is expected to account for about 3 million new wage and salary jobs—20 percent of all wage and salary jobs added to the economy over the 2006-16 period. Projected rates of employment growth for the various segments of the industry range from 13 percent in hospitals, the largest and slowest growing industry segment, to 55 percent in the much smaller home health care services.

Source: Bureau of Labor Statistics Web site: www.bls.gov

Missouri Data

By the year 2016, over 186,000 jobs are projected to be in the health care industry, with nearly 20,500 being newly created jobs due to growth. This relates to a 12.2% increase from 2006. Five of the top 50 occupations projected to have the greatest job growth over the next 10 years are in health care.

Source: Missouri Economic Research and Information Center, www.missourieconomy.org