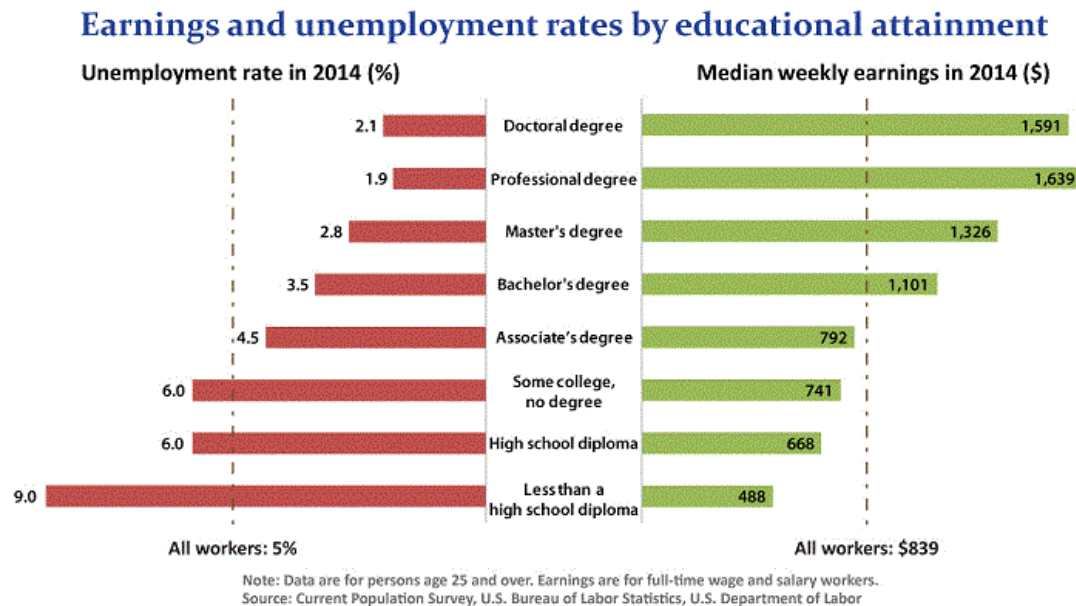


# Why College?

Why is college important?

Employment

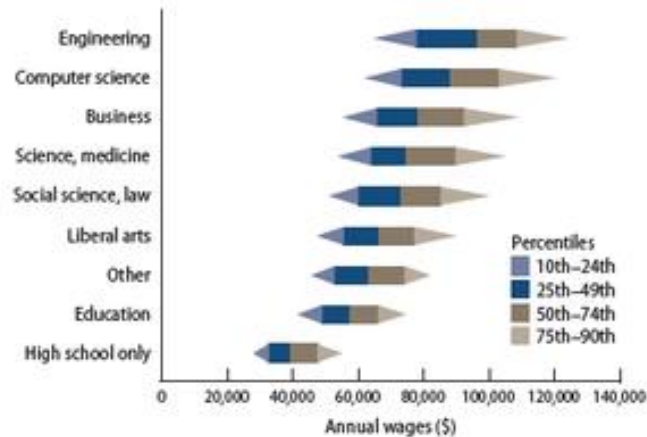


According to recent estimates by the Bureau of Labor Statistics, in 2011, there were 5.9 million scientists and engineers employed in the United States, accounting for 4.6% of total U.S. employment. The unemployment rates for the science and engineering occupations overall (3.9%) were lower than the overall unemployment rate for those 16 and over (8.9%), and generally lower than the unemployment rate for the professional and related occupations group (4.3%).

## Salaries

In general, scientists and engineers have mean wages that exceed the mean wage for all occupations in the United States. In 2011, the mean wage for all scientists and engineers was \$85,700, while the mean wage for all other occupations was \$43,300.

Figure 7. Wages vary tremendously depending on the worker's college major



SOURCE: Authors' analysis of the 2009–2011 multiyear ACS.

NOTES: Full-time year-round California workers ages 25 to 64. See Technical Appendices B and D for more information.

## Projected Demand

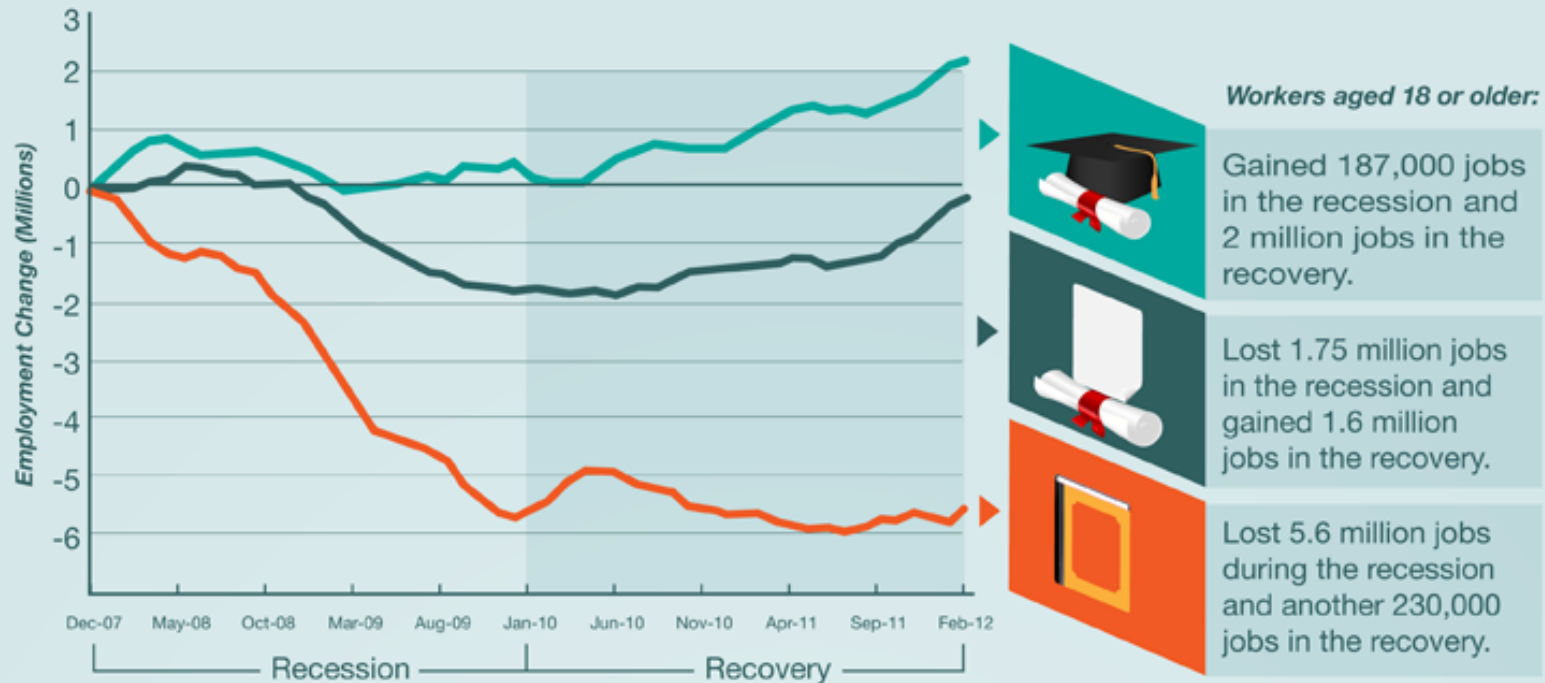
The Bureau of Labor Statistics projects the number of science and engineering jobs will grow by 1.1 million between 2010 and 2020, a growth rate (1.7% CAGR) that is somewhat faster than that of the overall workforce (1.3%). In addition, the Bureau projects that a further 1.3 million scientists and engineers will be needed to replace those projected to exit S&E occupations. Growth in the S&E occupational groups is projected to range from 1.0%-2.0% CAGR.

The number of scientists and engineers needed to meet growth and net replacement needs between 2010 and 2020 is 2.4 million, including 1.4 million in the computer occupations and 525,900 engineers.<sup>[1]</sup>

## Job Losses & Gains

Workers with a high school education or less experienced the majority of job losses.

**Key:** — Bachelor's degree or better    — Associate's degree or some college    — High school or less



**Source:**

The College Advantage: Weathering the Economic Storm

## Most Valuable College Majors

With Projected Job Growth Through 2020

Major	Starting Median Salary	Mid-Career Median Pay	Growth in Pay	Projected Job Growth
1 Biomedical Engineering	\$ 53,800	\$ 97,800	82.0%	61.7%
2 Biochemistry	\$ 41,700	\$ 84,700	103.0%	30.8%
3 Computer Science	\$ 56,600	\$ 97,900	73.0%	24.6%
4 Software Engineer	\$ 54,900	\$ 87,800	60.0%	24.6%
5 Environmental Engineer	\$ 51,700	\$ 88,600	71.0%	21.9%
6 Civil Engineer	\$ 53,100	\$ 90,200	70.0%	19.4%
7 Geology	\$ 45,300	\$ 83,300	84.0%	19.3%
8 Management Information Sys	\$ 51,000	\$ 88,200	73.0%	18.1%
9 Petroleum Engineering	\$ 97,900	\$ 155,000	58.0%	17.0%
10 Applied Mathematics	\$ 52,600	\$ 98,600	88.0%	16.7%
11 Mathematics	\$ 47,000	\$ 89,900	91.0%	16.7%
12 Construction Management	\$ 50,200	\$ 85,200	70.0%	16.6%
13 Finance	\$ 46,500	\$ 87,300	88.0%	16.0%
14 Physics	\$ 49,800	\$ 101,000	103.0%	14.2%
15 Statistics	\$ 49,000	\$ 93,800	91.0%	14.1%

Source: PayScale, U.S. Bureau of Labor Statistics & Forbes

### Opportunity

Education opens up doors with more choices and opportunities for travel, scholarships, and better jobs. Not only does it offer more job opportunities but it can also determine your lifestyle. A college education and specifically a STEM degree can give you more degrees of freedom with the car you own, the healthcare you obtain, the house you own, and your vacation time.

A college education can also expand your mind through exposure to various people, topics, and experiences. Growth and development will occur in many areas, including decision-making, analytical awareness, reasoning, creative expression, verbal expression, and more.

It also helps to improve your community and gives you friends, personal satisfaction, confidence, and hope for a better life.

## **Types of Colleges/Universities**

### **Community Colleges**

- Prepares students to transfer to a 4 year institution
- Associate's degree
- Offers technical training in specific occupations (bookkeeping, culinary arts)
- Most are nonresidential - students live off-campus
- Students can attend part-time or full-time
- To enroll, students have to be 18 + or have a High School Diploma
- Texas examples: Houston Community College, San Jacinto Community College

### **Public Universities**

- Large state universities typically enroll 7,000 or more students, are publicly funded, and offer both undergraduate and graduate work.
- Most public universities and colleges were founded by state governments to give residents the opportunity to receive public college education. Today, state governments pay for most of the cost of operating public universities
- Bachelor of Arts / Bachelor of Science and Master's degrees
- Accepts High School Seniors and Community College Transfers
- Provides broad liberal education and prepares students for professional goals
- Have Professional Schools: Law, Medicine, Education, Engineering, Journalism, Social Welfare...
- Texas examples: University of Texas, Texas A&M University, University of Houston

### **Private Colleges and Universities**

- A private college is an independent school that sets its own policies and goals, and is privately funded. Private colleges are generally smaller than public or private universities. The average enrollment at private colleges is only 1,900 students.
- Vary in size, prestige, and cost
- Bachelor's, Master's, and Doctorate's, and Professional Degrees
- Accepts High School Graduates and Community College Transfers
- Professional Schools: Law, Medicine, Education, Engineering, Journalism, Social Welfare...
- Texas examples: Rice University (Houston), St. Mary's University (San Antonio), Southern Methodist University (Dallas)