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College majors with the highest salaries

With almost 20 million students enrolled in postsecondary education, getting a bachelor's degree has become a rite of passage for many young professionals before going into the workforce. But rising college tuition and increasing student loan debt to foot the bill are starting to raise the question of whether or not a college education is worth it.

The good news is that a college degree does lead to better economic outcomes. "While every student may consider his or her situation independently by taking into account student debt and other financial constraints, the tight labor market offers a positive outlook for recent graduates no matter what major they have chosen to pursue," explained a spokesperson for job search website CareerBuilder.

Data from the Bureau of Labor Statistics supports this, showing that higher educational attainment corresponds with higher earnings and lower unemployment. Full-time workers with a bachelor's degree have a median annual salary of $60,996, while high school graduates that didn't go to college earn $37,024 per year. Graduate-level degrees have even higher earning potential, with professional degrees such as MBAs, JDs, and MDs being the most lucrative. Similarly, those with a bachelor's degree or above have unemployment rates under 2.5 percent, while those who only received a high school diploma have an unemployment rate of 4.6 percent.

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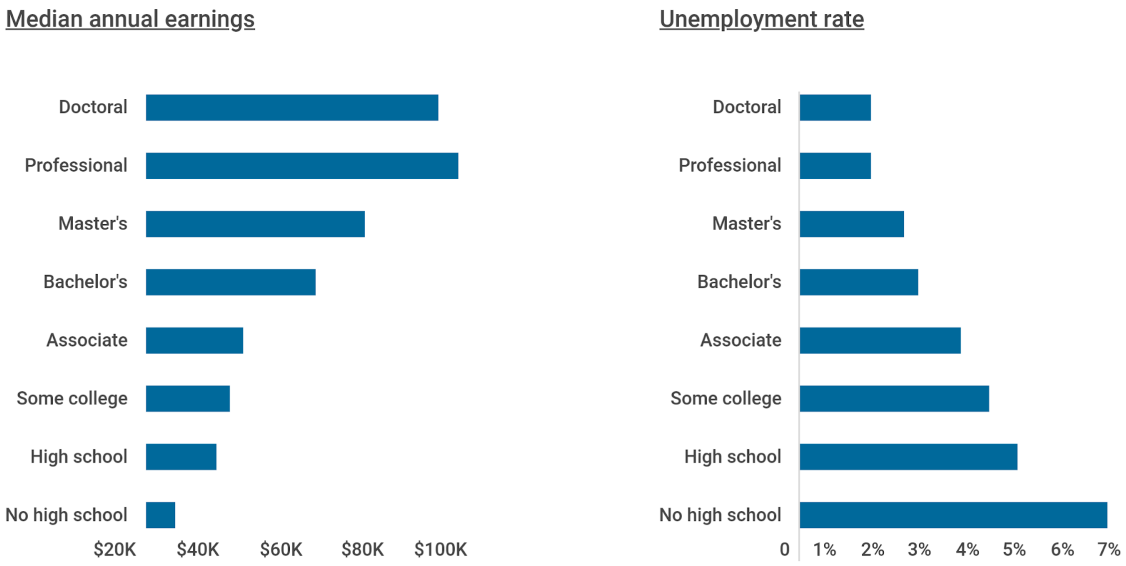
The value of education in the workplace



Source: HeyTutor analysis of U.S. Bureau of Labor Statistics Current Population Survey data; All data are for full-time salary workers age 25 and over

In the 2016–17 academic year, colleges awarded a record 1.96 million bachelor's degrees. The most popular majors were associated with business (381,000 degrees), health professions (238,000 degrees), social sciences and history (159,000 degrees), psychology (117,000 degrees), biological and biomedical sciences (117,000 degrees), and engineering (116,000 degrees). Science, technology, engineering, and math (STEM) fields accounted for just under 20 percent of all majors.

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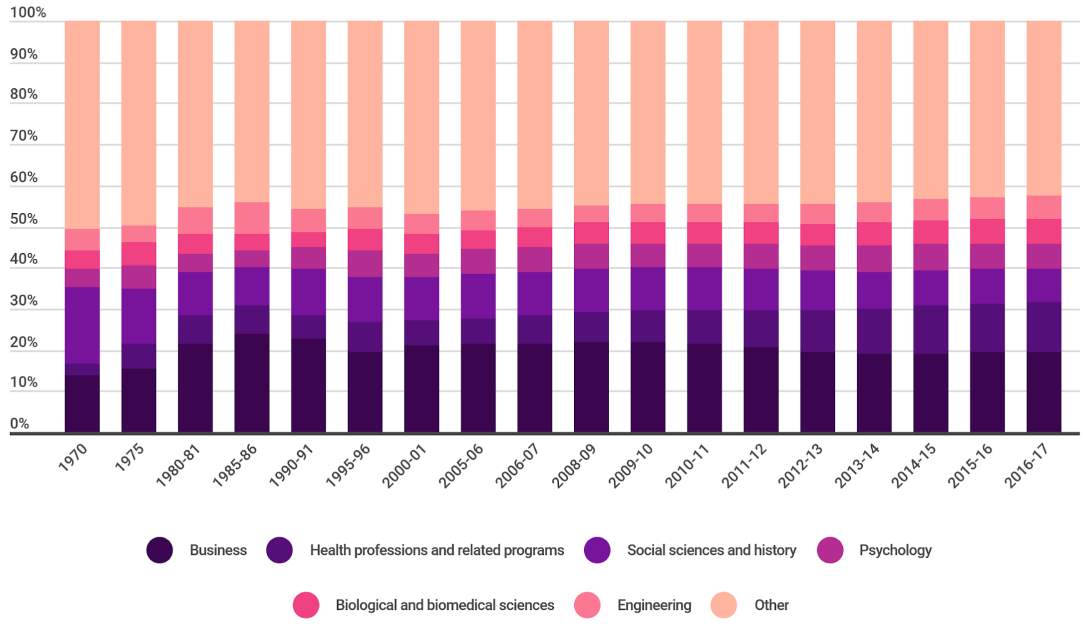
Proportion of bachelor's degrees by field of study



Source: HeyTutor analysis of U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System

Despite the overall positive economic effects of higher education, not all fields of study are equal. A student's choice of major can have a significant long-term effect on earning potential.

"Those candidates who have highly specialized skills, such as in finance, accounting or technology, are likely going to command higher starting salaries. So that's something to keep in mind when picking a major," explained Michael Steinitz, the Global Executive Director of Accountemps, a division of Robert Half.

Interestingly, some of the highest paying majors (mostly in business and engineering) have not increased in popularity much over the years. In addition, women and racial minorities are underrepresented in some of the highest paying fields, suggesting that major might be a contributing factor to longer-term gender/racial gaps in earnings. About two-thirds of STEM bachelor's degrees are awarded to men, and more than 60 percent of students pursuing STEM degrees identify as white. Encouraging more students, especially women and minorities, to pursue STEM degrees could further diversify the workforce and help close wage gaps.

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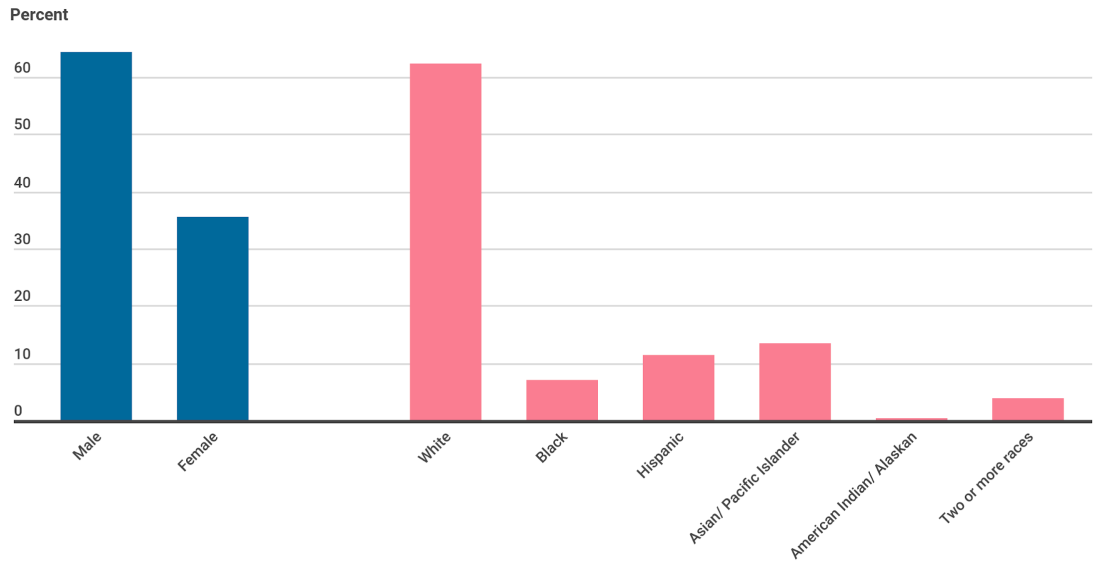
Proportion of total STEM bachelor's degrees awarded by gender, race & ethnicity



Source: HeyTutor analysis of U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System

To find out which college majors translate into the highest salaries, a private tutoring firm HeyTutor analyzed data from the U.S. Census Bureau and the National Center for Education Statistics. HeyTutor looked at the median early career wage, median mid-career wage, unemployment rate, and underemployment rate of the most common undergraduate majors.

To control for educational attainment, the wage data only takes into account earnings from workers with undergraduate degrees, not workers who went on to receive graduate or professional degrees. All majors on the top 25 list of highest-paying majors have a median early career wage that's higher than the median for all bachelor's degrees ($40,000), and a median mid-career wage that also exceeds that for all bachelor's degrees ($68,000). Most of the majors on the list are in STEM or business fields, with the engineering disciplines commanding the highest salaries across the board.

While insightful, this data should not discourage students from pursuing their passions if they lie outside of the majors listed here. For one, the statistics shown are averages, and any given individual might significantly outperform or underperform these benchmarks. For example, a research report conducted at Georgetown University by Dr. Anthony P. Carnevale and Dr. Ban Cheah emphasized: "While field of study is important, it does not control one's financial

destiny—there is great variation in earnings within majors.” Additionally, salary is a single data point, among many factors, that students should consider when deciding what to study.

When asked how students should digest this information, Steinitz suggested, “It's always a good idea to pursue your passion, and your first job does not need to be a perfect job. Gaining experience, meeting new connections, and learning from them are important qualities as you start your career.”

Similarly, a spokesperson for CareerBuilder emphasized, “We are currently in a job seekers’ market where there are more open positions than candidates…[Our data shows] 65 percent of employers plan to hire recent college graduates this year, and 59 percent of companies are open to hiring candidates who may not be fully qualified for the position but have potential for growth.”

That said, if the economic return on investment is still a top priority, consider the 25 highest-paying majors (ordered by early career median wage):

Salaries for the 25 highest-paying majors

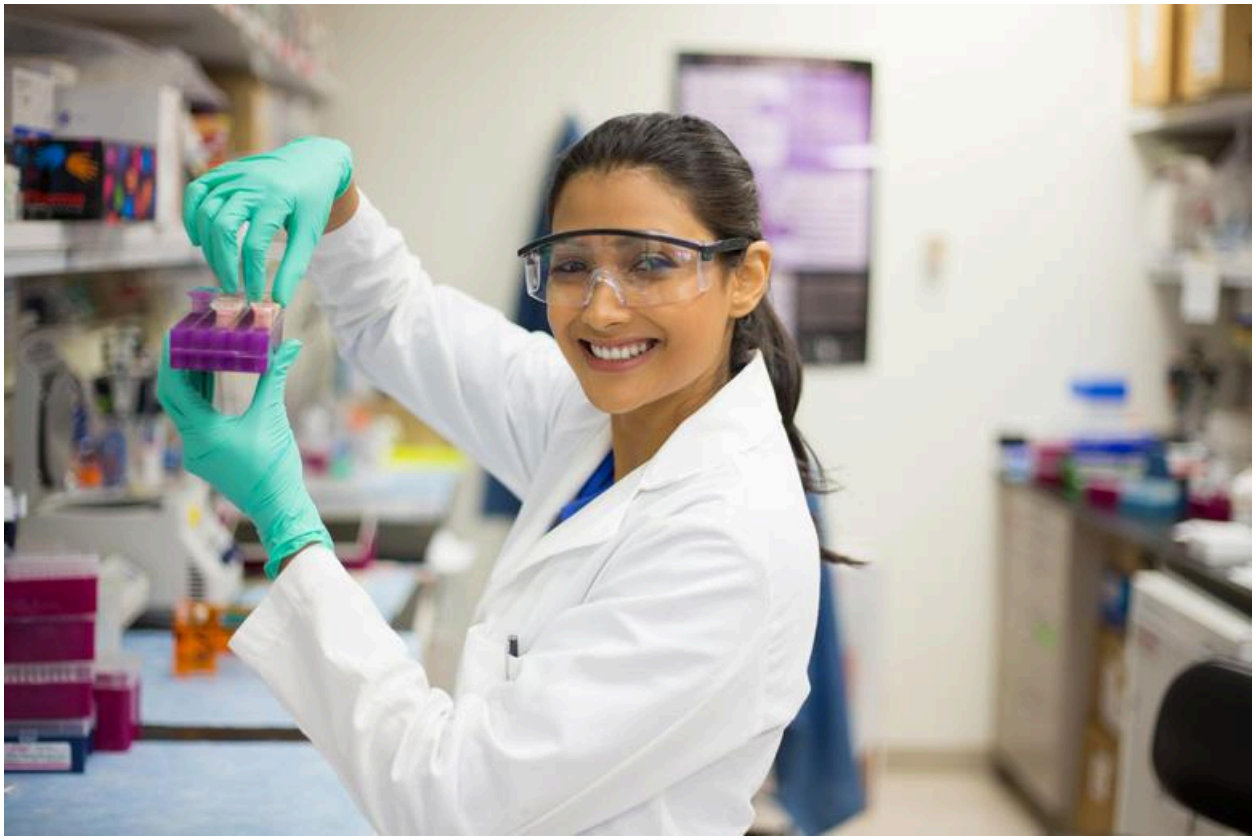


Photo Credit: Ashok Tholpady / Alamy Stock Photo

25. Medical Technicians

- **Median wage early career:** $42,600
- **Median wage mid-career:** $64,000
- **Unemployment rate:** 1.0%
- **Underemployment rate:** 50.9%
- **Share with graduate degree:** 24.3%

One of the only health-related majors on this list, medical technician programs teach students to collect and analyze health data using medical laboratory procedures. Course subjects typically include mathematics, medical computer applications, hematology, medical microbiology, immunohematology, immunology, clinical chemistry, and general laboratory practices. At 1.0 percent, medical technician majors have the lowest unemployment rate on this list.

Photo Credit: Diego Grandi / Alamy Stock Photo

24. International Affairs

- **Median wage early career:** $45,000
- **Median wage mid-career:** $75,000
- **Unemployment rate:** 4.7%

- **Underemployment rate:** 49.7%
- **Share with graduate degree:** 42.6%

International affairs, also known as international relations, introduces students to the study of foreign policy, international law, diplomacy, and political theories across countries. This research-oriented field can lead to careers in government agencies, foreign service, think tanks, law, academia, and more. Almost half of international affairs majors are underemployed and the unemployment rate is higher than bachelor's degrees overall. However, both the early career and mid-career median wages for international affairs bachelor's degrees is higher than the national median for all bachelor's degrees.

Photo Credit: Dzianis Apolka / Alamy Stock Photo

23. General Business

- **Median wage early career:** $45,000
- **Median wage mid-career:** $70,000
- **Unemployment rate:** 3.7%
- **Underemployment rate:** 56.4%
- **Share with graduate degree:** 23.8%

While finance or accounting majors are more specific, general business majors undertake a

more holistic course of study which may include economics, accounting, and business organization. General business majors can be employed in a variety of settings and might secure jobs as consultants, general managers, sales representatives, or analysts.

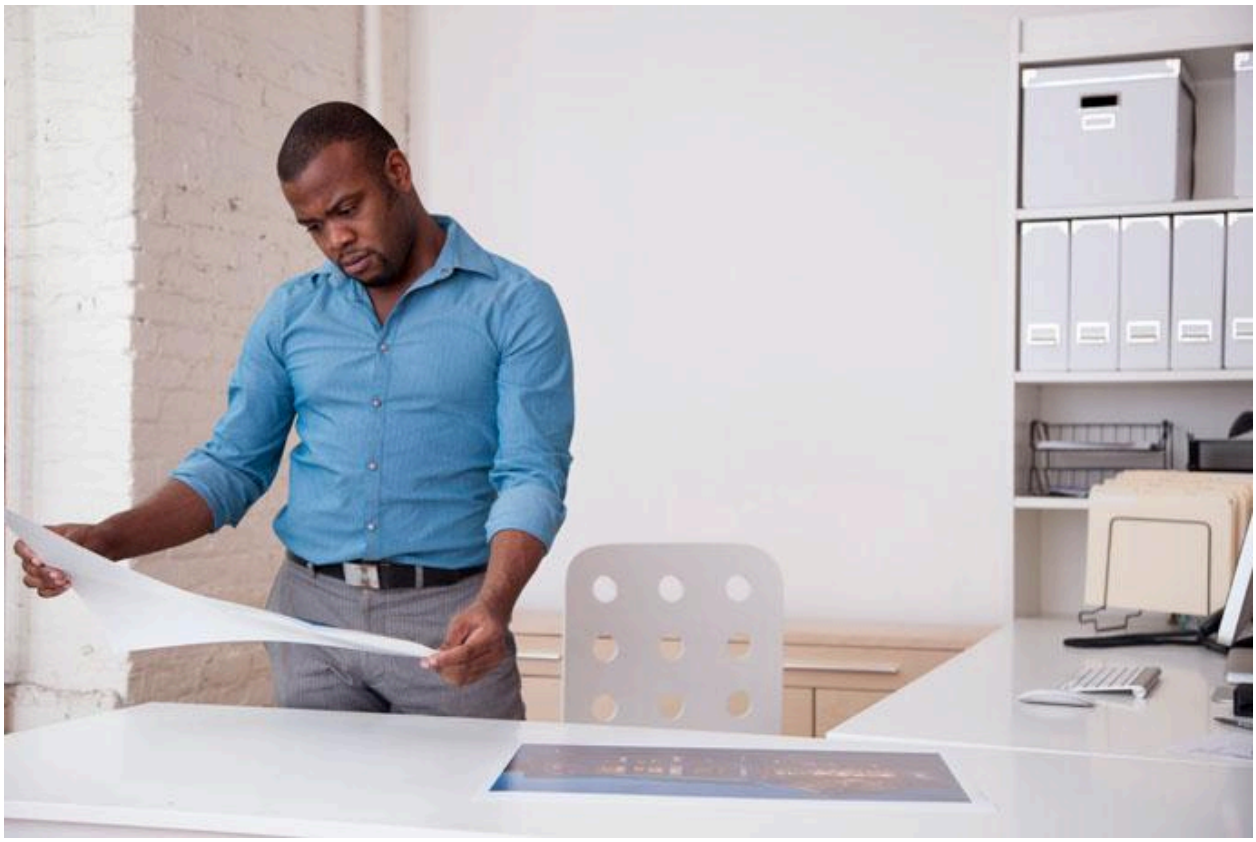


Photo Credit: Tetra Images, LLC / Alamy Stock Photo

22. Architecture

- **Median wage early career:** $45,000
- **Median wage mid-career:** $75,000
- **Unemployment rate:** 4.3%
- **Underemployment rate:** 26.6%
- **Share with graduate degree:** 37.4%

College students who major in architecture learn about aspects of design, architectural history, environmental systems, site planning, construction, drafting, and environmental issues. After graduation, architecture majors usually work in architectural firms and may specialize in residential buildings, commercial buildings, urban planning, interior design, and more. At 4.6 percent, the unemployment rate for architecture majors is higher than the average for all bachelor's degree holders. However, the expected pay for those who secure jobs is above average.

Photo Credit: Juan Vilata / Alamy Stock Photo

21. Miscellaneous Physical Sciences

- **Median wage early career:** $46,000
- **Median wage mid-career:** $75,000
- **Unemployment rate:** 4.0%
- **Underemployment rate:** 35.9%
- **Share with graduate degree:** 56.2%

Miscellaneous physical sciences is a catch-all category for other physical sciences majors not classified by the National Center for Education Statistics. These fields generally focus on concepts and processes associated with non-living systems (in contrast to “life sciences”). A physical sciences major includes coursework in physics, chemistry, earth science, among others.

Photo Credit: Viktor Cap / Alamy Stock Photo

20. Physics

- **Median wage early career:** $48,500
- **Median wage mid-career:** $94,000
- **Unemployment rate:** 5.3%
- **Underemployment rate:** 31.7%
- **Share with graduate degree:** 68.9%

While physical science majors have a more general curriculum, physics majors focus on highly specialized topics such as energy, electricity, magnetism, thermodynamics, mechanics, nuclear processes, quantum theory, and laboratory practices. Physics majors can work as physicists, patent agents, acoustical engineers, professors, and more. Among all students who receive a bachelor's degree in physics, 68.9 percent eventually go on to pursue a graduate degree, the highest share on this list.

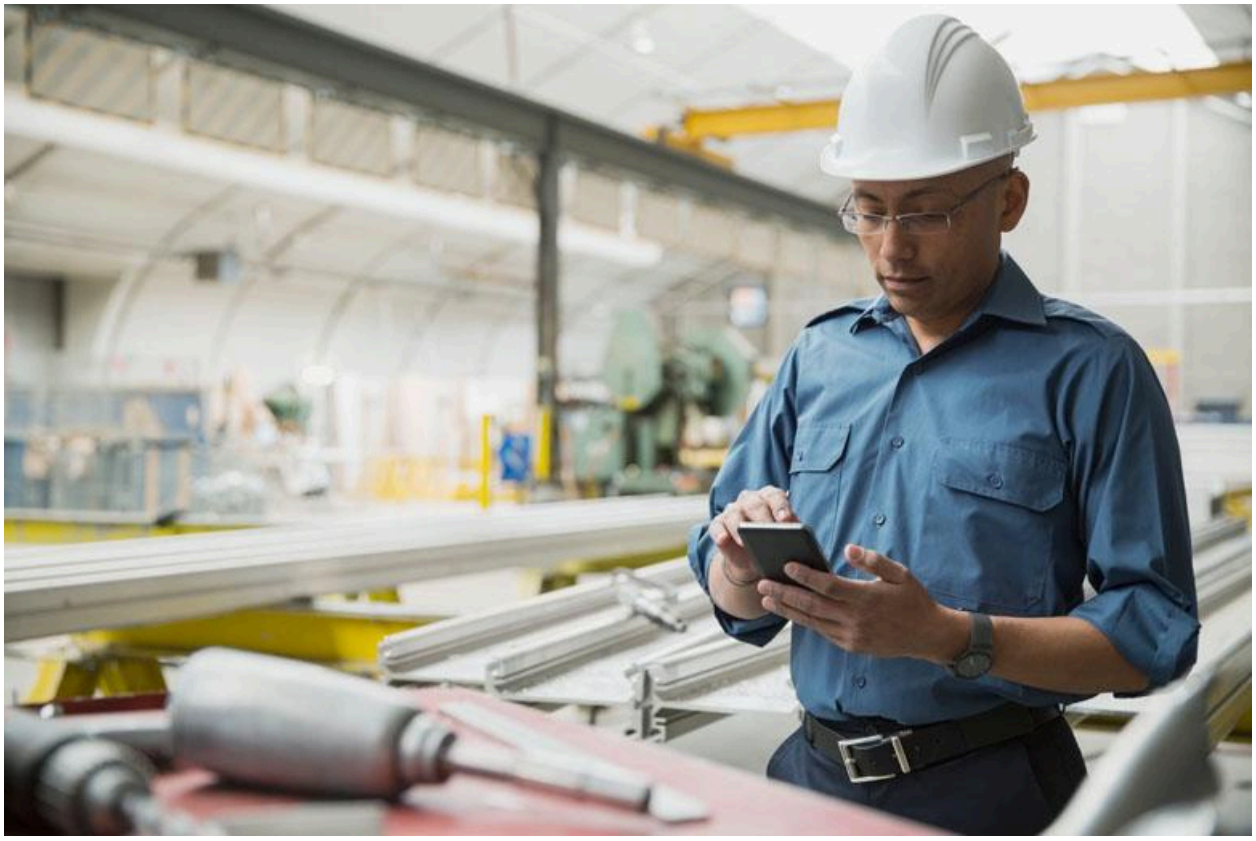


Photo Credit: Hero Images Inc. / Alamy Stock Photo

19. Engineering Technologies

- **Median wage early career:** $50,000
- **Median wage mid-career:** $80,000
- **Unemployment rate:** 5.3%
- **Underemployment rate:** 40.9%
- **Share with graduate degree:** 24.3%

Engineering technologies programs aim to teach basic principles and technical skills that support engineering-related projects. While engineering programs focus on advanced theory and principles related to mathematics and science, engineering technology focuses on the application of specific techniques. Students with a bachelor's degree in engineering technology can become "technologists" and work in industries related to design, research, manufacturing, and operations.

Photo Credit: Stefan Dahl Langstrup / Alamy Stock Photo

18. Accounting

- **Median wage early career:** $50,000
- **Median wage mid-career:** $72,000
- **Unemployment rate:** 2.8%
- **Underemployment rate:** 23.0%
- **Share with graduate degree:** 28.7%

Accounting majors learn various aspects of accounting principles and theory, such as budget control, taxation, auditing, statement analysis, planning and consulting, business information systems, and accounting research methods. Students who study accounting can go on to work as certified public accountants, auditors, or in-house accountants at for-profit or nonprofit organizations.

Photo Credit: Hero Images Inc. / Alamy Stock Photo

17. Nursing

- **Median wage early career:** $50,000
- **Median wage mid-career:** $70,000
- **Unemployment rate:** 2.0%
- **Underemployment rate:** 11.4%
- **Share with graduate degree:** 26.4%

In addition to extensive coursework in biology and physiology, nursing majors learn how to perform medical exams, provide care for the sick, and encourage good health. Many nurses also choose to specialize in areas such as geriatric or pediatric nursing. At 11.4 percent, nursing has the lowest underemployment rate of all majors on this list. The Bureau of Labor Statistics also projects the employment of registered nurses to grow 15 percent from 2016 to 2026.

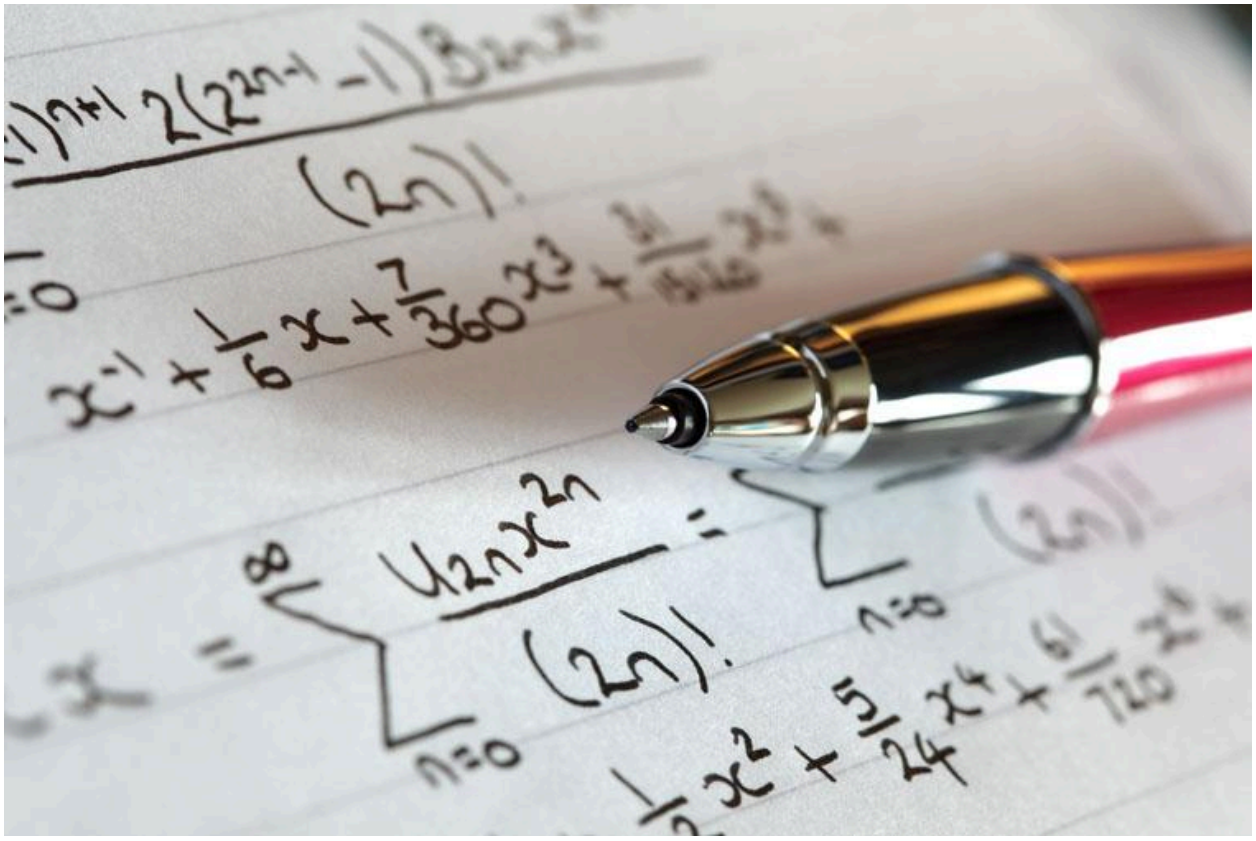


Photo Credit: Brian Jackson / Alamy Stock Photo

16. Mathematics

- **Median wage early career:** $50,000
- **Median wage mid-career:** $80,000
- **Unemployment rate:** 5.8%
- **Underemployment rate:** 30.6%
- **Share with graduate degree:** 52.2%

Students who major in mathematics receive in-depth instruction in topics including linear algebra, number theory, probability, and statistics. Math majors can pursue careers as actuaries, financial planners, bankers, secondary school teachers, and more. At 5.8 percent, math majors have a higher unemployment rate than most majors on this list.

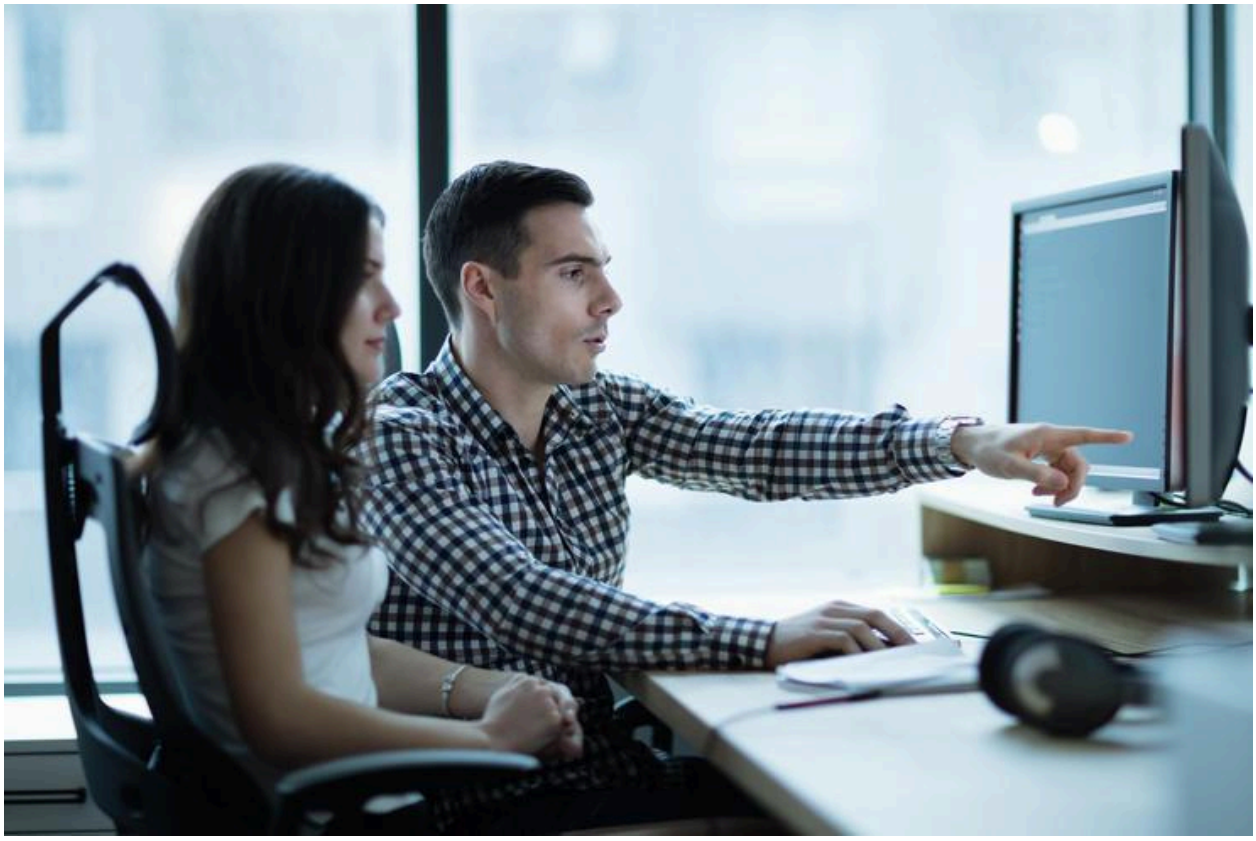


Photo Credit: Andor Bujdoso / Alamy Stock Photo

15. Information Systems and Management

- **Median wage early career:** $50,000
- **Median wage mid-career:** $75,000
- **Unemployment rate:** 5.0%
- **Underemployment rate:** 38.1%
- **Share with graduate degree:** 24.0%

Undergraduate programs in information systems and management seek to prepare students to implement and manage data systems used to improve efficiency, increase value, and ease information sharing for businesses and organizations. Data systems might include accounting information systems, management control systems, personnel information systems, data security, and more. Students who pursue this field are likely to find work at the intersection of business and technology, such as web developers, business intelligence analysts, data analysts, and network administrators.

Photo Credit: Matej Kastelic / Alamy Stock Photo

14. Finance

- **Median wage early career:** $52,000
- **Median wage mid-career:** $85,000
- **Unemployment rate:** 3.5%
- **Underemployment rate:** 37.0%
- **Share with graduate degree:** 30.5%

A major in finance is an excellent path for students who want to be investment bankers, brokers, or financial consultants. At the baccalaureate level, a finance curriculum usually includes topics such as accounting, asset and debt management, budgeting, and portfolio management. One of the most lucrative non-STEM fields on this list, finance majors have a mid-career median wage of $85,000.

Photo Credit: filmfoto / Alamy Stock Photo

13. Economics

- **Median wage early career:** $55,000
- **Median wage mid-career:** $90,000
- **Unemployment rate:** 4.1%
- **Underemployment rate:** 39.8%
- **Share with graduate degree:** 42.2%

At the most basic level, the study of economics is based on the production and allocation of scarce goods. More specifically, economics majors learn about economic theory, microeconomics, macroeconomics, international economics, statistical methods, and economic policy issues. Due to the intensive analytical nature of this degree, many economics students go on to become analysts, economists, statisticians, financial advisors, or securities traders.

Photo Credit: Maskot / Alamy Stock Photo

12. Construction Services

- **Median wage early career:** $56,000
- **Median wage mid-career:** $85,000
- **Unemployment rate:** 6.1%
- **Underemployment rate:** 34.0%
- **Share with graduate degree:** 10.4%

A highly technical, hands-on course of study, construction services prepares students for constructing, inspecting, and maintaining different types of buildings. Career options include cost estimating, construction, project management, and field surveying. At 6.1 percent, construction services has the highest unemployment rate on this list. Only 10.4 percent of construction services majors go on to pursue a graduate degree—a reflection of coursework that is geared towards employment, rather than further education.

Photo Credit: NicoElNino / Alamy Stock Photo

11. Business Analytics

- **Median wage early career:** $57,000
- **Median wage mid-career:** $88,000
- **Unemployment rate:** 3.8%
- **Underemployment rate:** 37.5%
- **Share with graduate degree:** 23.8%

Everyone works with data these days. In fact, for the past three years, Glassdoor has ranked "Data Scientist" as the top job in the U.S. A degree in business analytics is a great start for students interested in working as data scientists, business analysts, or market researchers. The curriculum for business analytics (or business statistics) teaches skills in statistics, computer applications, forecasting, and market performance analysis.

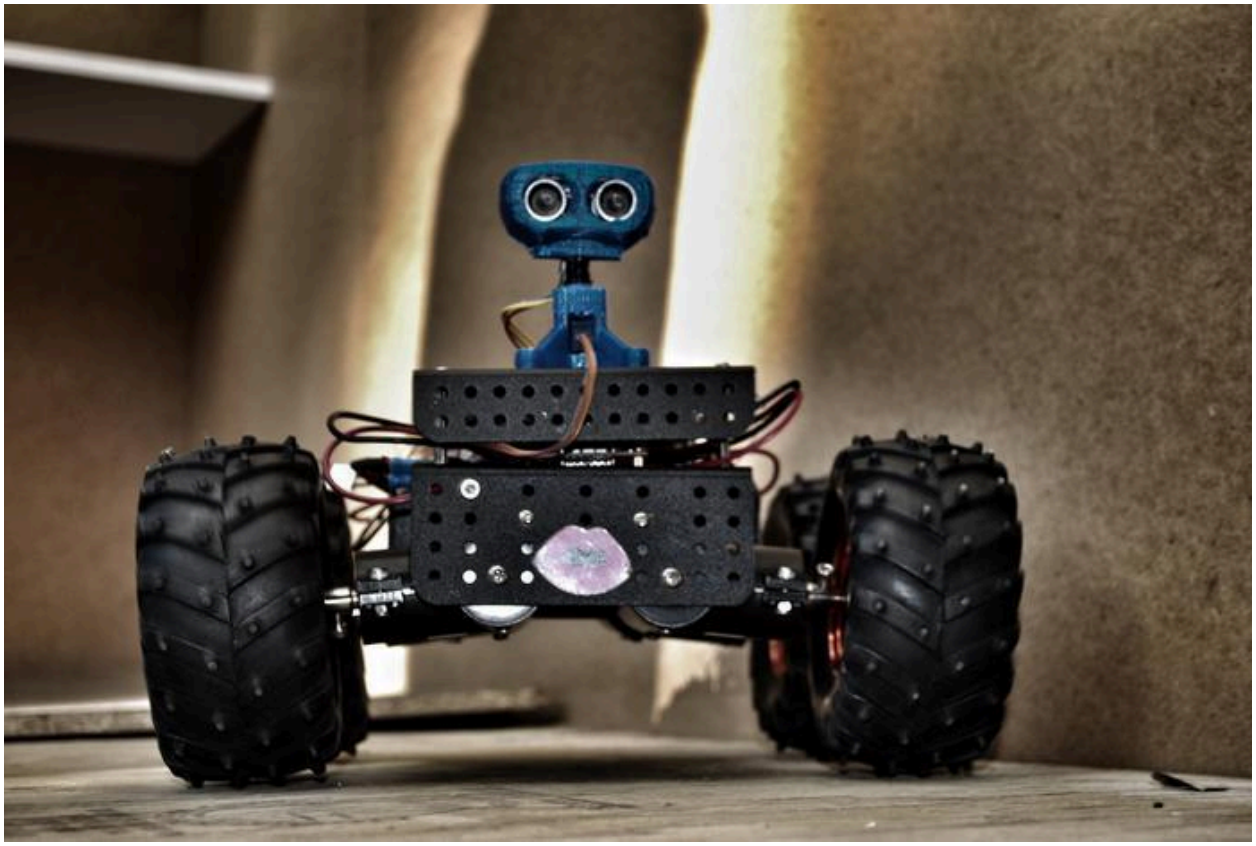


Photo Credit: mastec / Stockimo / Alamy Stock Photo

10. Miscellaneous Engineering

- **Median wage early career:** $60,000
- **Median wage mid-career:** $85,000
- **Unemployment rate:** 4.3%
- **Underemployment rate:** 29.4%
- **Share with graduate degree:** 44.1%

Miscellaneous engineering is a catch-all category for other engineering majors not classified by the National Center for Education Statistics. An example of such a major would be renewable energy engineering. Regardless of the specific discipline, engineering majors will develop valuable critical thinking, problem solving, and analytical skills that can be used in a variety of employment settings. Continue reading for statistics on more specific engineering degrees.

Photo Credit: Ian Littlewood / Alamy Stock Photo

9. Civil Engineering

- **Median wage early career:** $60,000
- **Median wage mid-career:** $90,000
- **Unemployment rate:** 1.9%
- **Underemployment rate:** 17.5%
- **Share with graduate degree:** 37.7%

Civil engineering is most often associated with public works, such as transportation systems, water resources, and sewage systems. A bachelor's degree in civil engineering enables students to learn the mathematical and scientific concepts involved with designing, implementing, and maintaining public infrastructure projects. The unemployment rate for civil engineering is only 1.9 percent.

Photo Credit: Hero Images Inc. / Alamy Stock Photo

8. General Engineering

- **Median wage early career:** $60,000
- **Median wage mid-career:** $88,000
- **Unemployment rate:** 5.0%
- **Underemployment rate:** 23.5%
- **Share with graduate degree:** 36.2%

Although most students who pursue engineering choose a specialization such as mechanical engineering or computer engineering, it's possible to major in general engineering. Students who enroll in a general engineering program learn mathematical and scientific theories that can be used to solve technical problems related to fields as diverse as technology, construction, public works, and commerce. The median early career wage of $60,000 is 50 percent higher than the median early career wage of all bachelor degree holders.

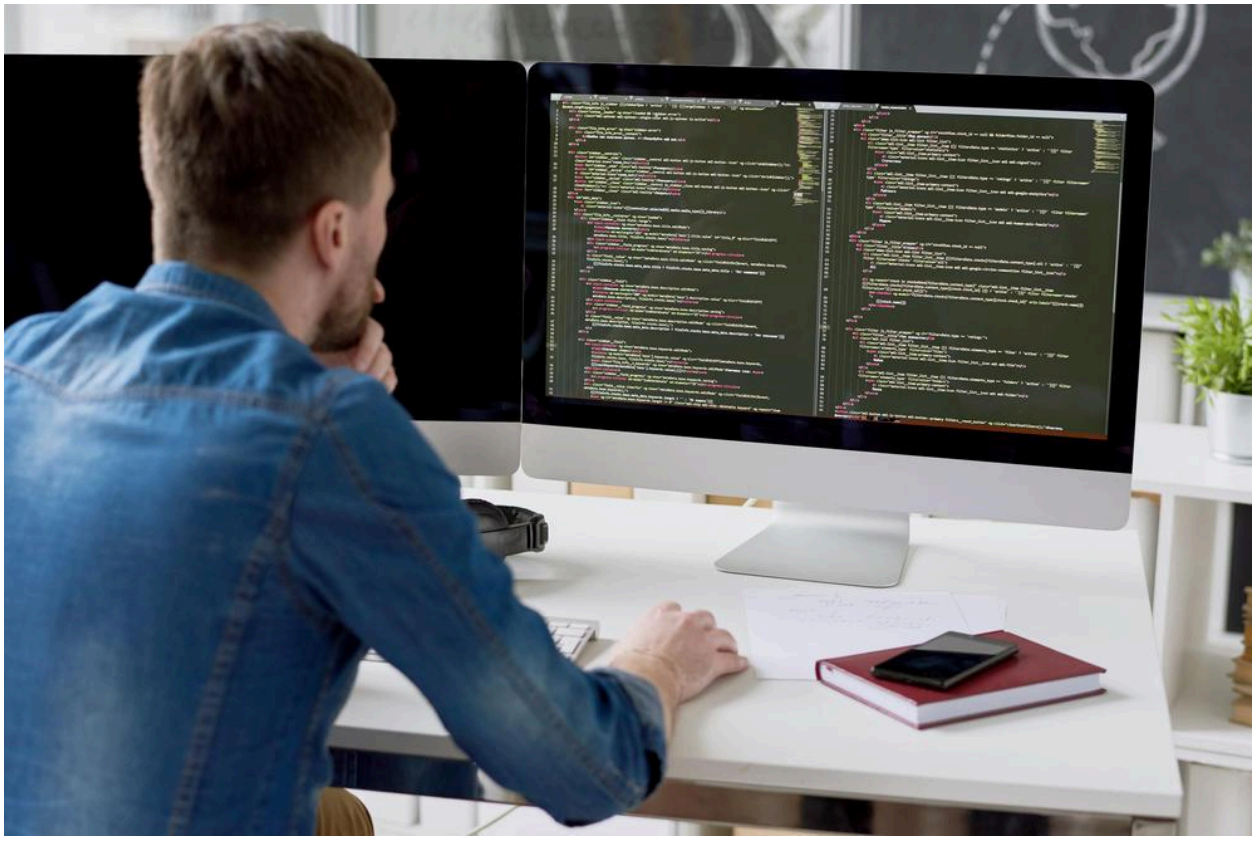


Photo Credit: Konstantin Pelikh / Alamy Stock Photo

7. Computer Science

- **Median wage early career:** $62,000
- **Median wage mid-career:** $95,000
- **Unemployment rate:** 4.7%
- **Underemployment rate:** 23.5%
- **Share with graduate degree:** 32.3%

True to its name, computer science is the study of computer logic and programming. Students in this field focus mostly on the theory and development of software. Computer science students often find work as software developers, programmers, app developers, and network administrators.

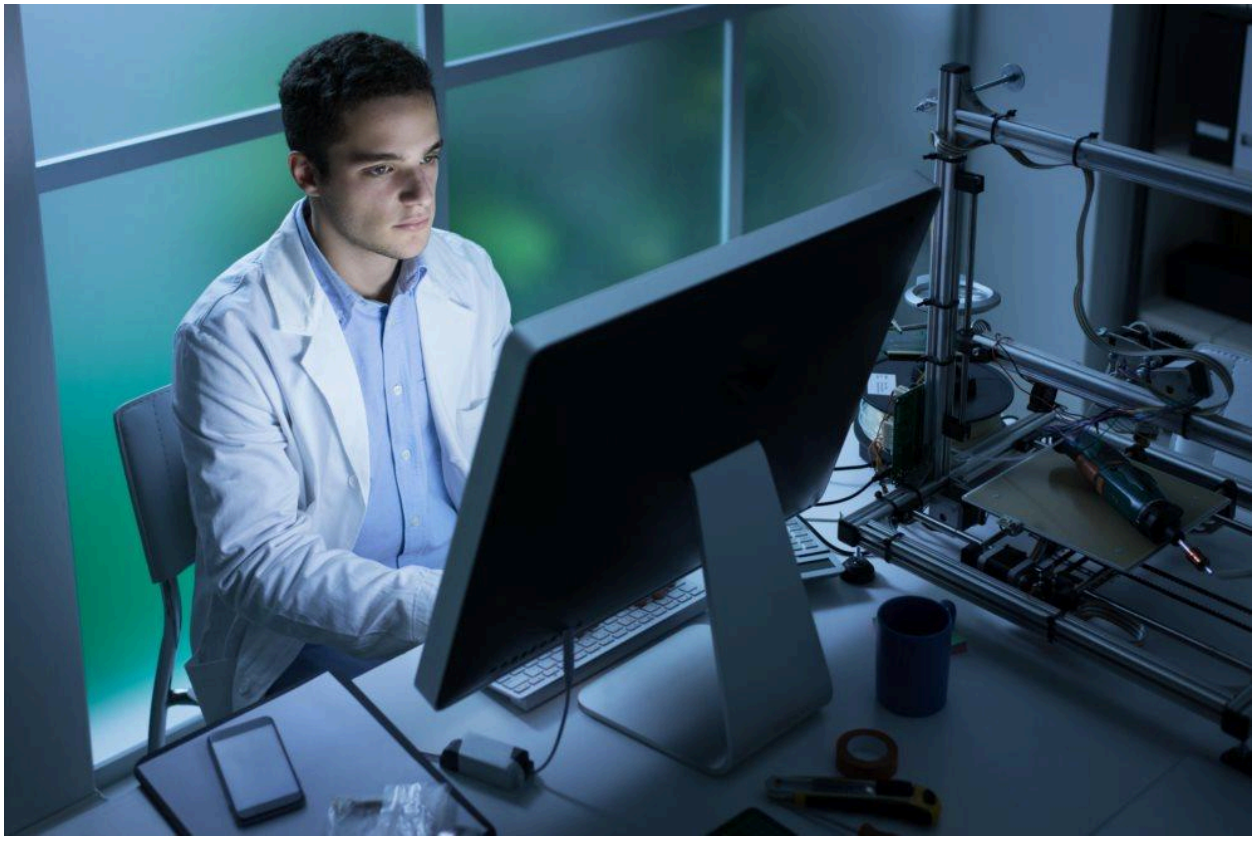


Photo Credit: Andrea De Martin / Alamy Stock Photo

6. Mechanical Engineering

- **Median wage early career:** $63,000
- **Median wage mid-career:** $98,000
- **Unemployment rate:** 4.3%
- **Underemployment rate:** 21.0%
- **Share with graduate degree:** 41.0%

The most popular of the engineering majors, mechanical engineering teaches principles of engineering, physics, mathematics, and materials science for the development, implementation, and maintenance of machines. Mechanical engineering students learn the workings behind energy-producing machines such as generators, internal combustion engines, and turbines, as well as energy-using machines like HVAC, common household appliances, and elevators. Students in this discipline are likely to become mechanical engineers, nuclear engineers, or materials engineers.

Photo Credit: Yuliya Ermakova / Alamy Stock Photo

5. Industrial Engineering

- **Median wage early career:** $64,000
- **Median wage mid-career:** $87,000
- **Unemployment rate:** 3.4%
- **Underemployment rate:** 17.3%
- **Share with graduate degree:** 39.7%

Industrial engineering is highly interdisciplinary. This major uses advanced mathematics and science to create systems and processes that will improve the efficiency and integration of people, materials, natural resources, information, and energy. The curriculum usually includes a combination of applied mathematics, physical sciences, social sciences, engineering, systems design, and computer science. A bachelor's in industrial engineering can lead to a career as a quality engineer, operations analyst, or industrial engineer.

Photo Credit: Monty Rakusen / Alamy Stock Photo

4. Aerospace Engineering

- **Median wage early career:** $64,000
- **Median wage mid-career:** $100,000
- **Unemployment rate:** 4.1%
- **Underemployment rate:** 26.8%
- **Share with graduate degree:** 52.9%

Aerospace engineering is the primary field for the design and construction of aircraft and spacecraft. Students in this discipline are likely to study a variety of science courses, such as chemistry, physics, math, and computer programming, to understand the mechanics of flight and the process of controlling air and space vessels. This major usually leads to careers such as aerospace engineering or a spacecraft design.

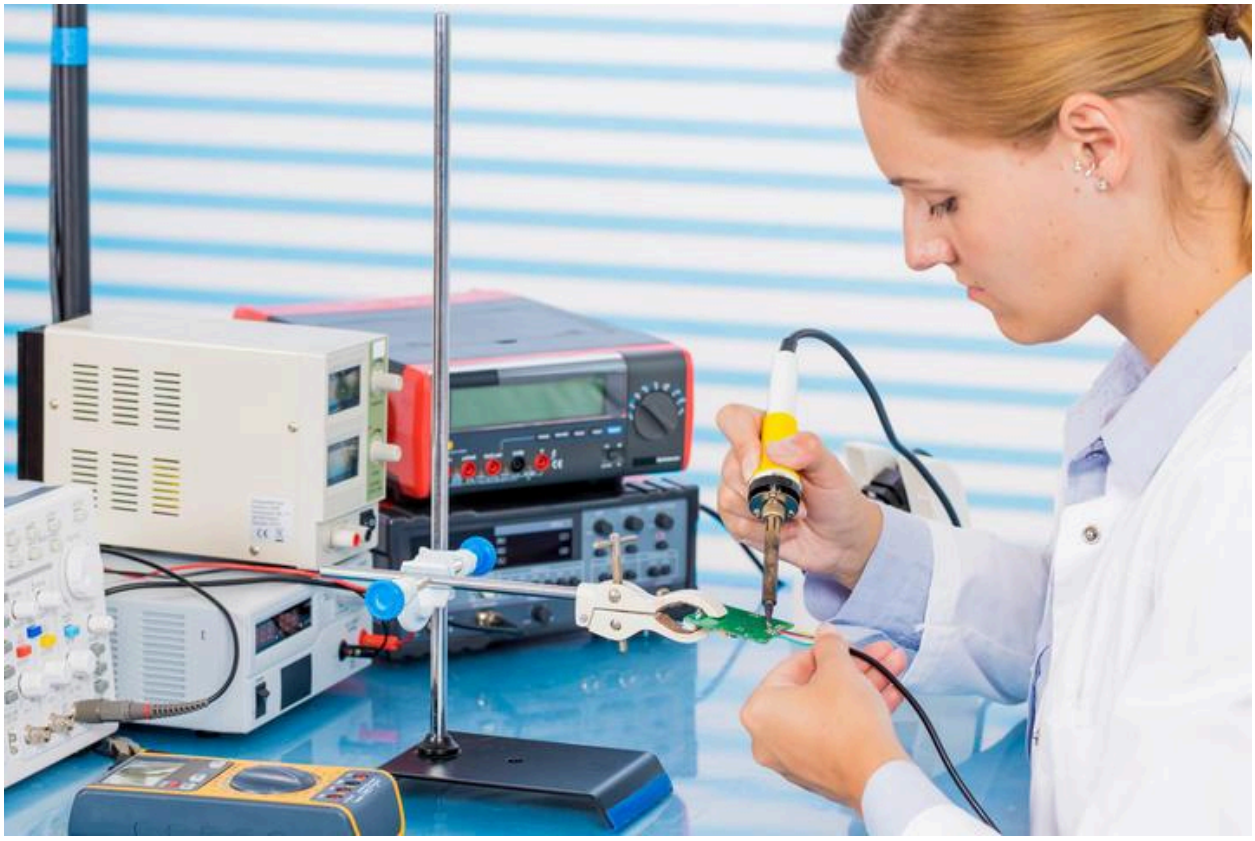


Photo Credit: laboratory / Alamy Stock Photo

3. Electrical Engineering

- **Median wage early career:** $65,000
- **Median wage mid-career:** $100,000
- **Unemployment rate:** 4.6%
- **Underemployment rate:** 22.3%
- **Share with graduate degree:** 44.8%

Electrical engineering students study the application of electricity, electronics, and electromagnetism to produce and transfer energy. Students who pursue this discipline often become electrical engineers and are prepared to do electrical work on a macro or micro scale. Electrical engineers can work on systems as large as electrical power generation systems or as small as microchips.

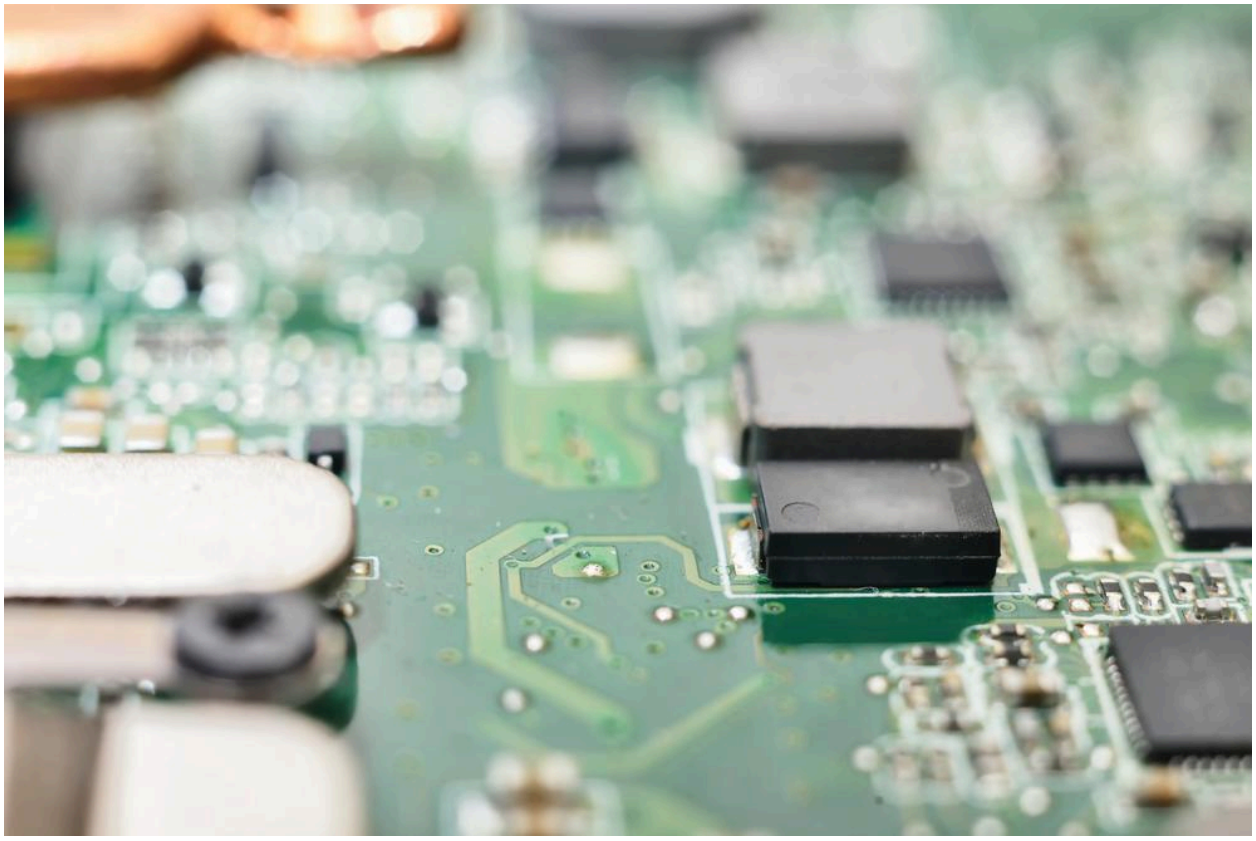


Photo Credit: Alexander Vedmed / Alamy Stock Photo

2. Computer Engineering

- **Median wage early career:** $65,000
- **Median wage mid-career:** $106,000
- **Unemployment rate:** 2.5%
- **Underemployment rate:** 20.1%
- **Share with graduate degree:** 39.9%

While computer science is more focused on data storage and processing, computer engineering is best described as the intersection of computer science and electrical engineering. This major prepares students to develop computer hardware and software systems, from components as small as a microprocessor to as large as a supercomputer. At $106,000, the computer engineering major has the highest mid-career median wage on this list.

Photo Credit: Konstantin Pelikh / Alamy Stock Photo

1. Chemical Engineering

- **Median wage early career:** $68,000
- **Median wage mid-career:** $103,000
- **Unemployment rate:** 2.6%
- **Underemployment rate:** 21.6%
- **Share with graduate degree:** 48.8%

At $68,000, chemical engineering has the highest early career median wage. Undergraduates enrolled in a chemical engineering program learn how to use chemistry, physics, mathematics, and biology to efficiently develop, transform, and transport chemicals, materials, and energy. The curriculum for a chemical engineering major will include highly technical concepts related to chemical reactors, kinetic systems, energy conservation processes, heat and mass transfer systems, and fluid mechanics.

Methodology

The data used in this analysis is from a Federal Reserve Bank of New York analysis of U.S. Census Bureau 2016 & 2017 American Community Survey data. To control for educational

attainment and hours worked, median wages are for individuals working full-time with a bachelor's degree only (e.g. they did not yet go on to receive a graduate or professional degree). Early career wages are for individuals between the ages of 22 and 27, whereas mid-career wages are for individuals between the ages of 35 and 45.

Unemployment and underemployment statistics are for bachelor's degree holders and above that are between the ages of 22 and 27. The graduate degree share is for individuals between 25 and 65 with a bachelor's degree or higher. Individuals enrolled in school are not included in the analysis.