

Unit 6 Future Paths



Throughout this workbook, we have asked students to dream about their future career, imagine the college they might attend, and think about the activities and courses they might select in high school. In this final unit, students bring all these units together as they create a life narrative of a successful alumnus from their own high school. Students evaluate the skill level needed for a career and select a possible education path.

It is important to remind students that there are many factors to consider when they select a career. No career is inherently more important or “better” than another. Each provides individuals with benefits that they personally value at a cost that they were willing to pay. Additionally, students may pursue multiple careers in a lifetime as their life goals and objectives change. Their education will continue throughout their lives—both on the job and in their personal lives.

Lesson Overview

Students will review key concepts, including career exploration, college choice, the application process, the cost of college and financial aid. Following the brief review, students will be given a career card and asked to write a possible success story for that career.

Instructional Objectives

- Identify and review key concepts from Units 1–5.
- Create a success story for an assigned career.

Time Required

60 minutes

Materials Required

For each student

- Student Workbook

For the classroom

- Unit 6 slides (available at www.dallasfed.org/educate/navigate)
- Copies of career cards, cut apart (available at www.dallasfed.org/educate/navigate)
- Classroom computer with Internet access and projector

Procedure

1. Use the slides for this unit to review key concepts about college. For additional information, have students review their completed Student Workbooks. Also refer to the information in the procedure documents for Units 1–5.
2. Distribute one career card to each student and tell students to open the Student Workbook to page 28. Tell students to brainstorm ways to prepare for the career in high school. For example, for a career in desktop publishing, student responses might include:
 - **Courses** – English, journalism, computer design, graphic arts
 - **Extracurricular at school** – Work on yearbook or school newspaper
 - **Extracurricular outside of school** – Develop and publish a newsletter for a youth group
 - **References** – English teacher, journalism teacher, yearbook sponsor, youth group leader
3. Tell students to read the prompt on page 29 and use the space to brainstorm information for the personal narrative. Remind students to use information on entry-level education and career description from the career card as they plan their essay.
4. Have students complete their final copy on page 30 of the Student Workbook.
5. Have students share their success stories with a partner to compare career paths.

Closure

6. Debrief the writing activity by discussing the following questions:
 - What was the most challenging part of writing the essay?
 - How do you think that writing the essay will help you as you enter high school?
 - What is the most important information you learned while studying *Navigate*.

Assessment

7. Evaluate the student essay for completeness and inclusion of relevant details, using the rubric on page 39.

Extension Activities

1. Students can interview an adult in a career that interests them and ask the adult to describe his or her career and educational path.
2. Students could do an oral report on the interview.

Assessment Rubric

Student Name _____

- 1. Did the student provide clear and complete information about high school preparation for the career?**

4	3	2	1	0	Points
Clear and complete information	Some flaws in clarity or completeness	Flaws in clarity and completeness	Significant flaws in clarity and completeness	No response	

- 2. Did the student provide clear and complete information about the post-secondary education required?**

4	3	2	1	0	Points
Clear and complete information	Some flaws in clarity or completeness	Flaws in clarity and completeness	Significant flaws in clarity and completeness	No response	

- 3. Did the student provide clear and complete information about the challenges that someone might face?**

4	3	2	1	0	Points
Clear and complete information	Some flaws in clarity or completeness	Flaws in clarity and completeness	Significant flaws in clarity and completeness	No response	

- 4. Did the student edit the final copy for spelling and grammar?**

4	3	2	1	0	Points
No errors	Few errors in spelling or grammar	Multiple errors in spelling and grammar	Significant errors in spelling and grammar	Essay incomplete	

Total Points

(16 points possible)

Unit 6 Slides

1 Exploring Careers

- Education beyond high school is required for many careers.
- Adults with more education can expect to earn higher wages.

2 What About College?

- There are more than 4,500 colleges in the U.S. Every college is unique.
- There are advantages and disadvantages for every school.

3 How Do I Get In?

- High school grades and course selection, along with test scores, impact college admissions.
- Extracurricular activities—both in and out of school—are an important part of an application for college.

4 How Much Does College Cost?

- There are many types of costs associated with attending college.
- The cost of attending college varies widely among schools.

5 Paying for College

- There are government and private resources available to help pay the cost of college. Many of these require completion of the FAFSA.
- Scholarships and grants are gifts that do not have to be repaid, but loans must be paid back with interest.

Career Cards**Architecture and Engineering****Drafters**

Drafters use software to convert the designs of engineers and architects into technical drawings and plans. Workers specialize in architectural, civil, electrical, or mechanical drafting and use technical drawings to help design everything from microchips to skyscrapers.

Entry-level Education:

Associate degree

Median Income:

\$49,630

**Arts and Design****Industrial designer**

Industrial designers develop the concepts for manufactured products, such as cars, home appliances, and toys. They combine art, business, and engineering to make products that people use every day. Industrial designers focus on the user experience in creating style and function for a particular gadget or appliance.

Entry-level Education:

Bachelor's degree

Median Income:

\$59,610

**Architecture and Engineering****Environmental engineering technicians**

Environmental engineering technicians carry out the plans that environmental engineers develop. They test, operate, and, if necessary, modify equipment used to prevent or clean up environmental pollution. They may collect samples for testing, or they may work to mitigate sources of environmental pollution.

Entry-level Education:

Associate degree

Median Income:

\$45,350

**Arts and Design****Interior designer**

Interior designers make interior spaces functional, safe, and beautiful by determining space requirements and selecting decorative items, such as colors, lighting, and materials. They read blueprints and must be aware of building codes and inspection regulations.

Entry-level Education:

Bachelor's degree

Median Income:

\$47,600

**Architecture and Engineering****Electrical engineer**

Electrical engineers design, develop, test, and supervise the manufacturing of electrical equipment, such as electric motors, radar and navigation systems, communications systems, and power generation equipment. Electronics engineers design and develop electronic equipment, such as broadcast and communications systems—from portable music players to global positioning systems (GPS).

Entry-level Education:

Bachelor's degree

Median Income:

\$89,630

**Business and Financial****Cost estimators**

Cost estimators collect and analyze data to estimate the time, money, materials, and labor required to manufacture a product, construct a building, or provide a service. They generally specialize in a particular industry or type of product.

Entry-level Education:

Bachelor's degree

Median Income:

\$58,860

**Architecture and Engineering****Landscape architect**

Landscape architects plan and design land areas for parks, recreational facilities, private homes, campuses, and other open spaces.

Entry-level Education:

Bachelor's degree

Median Income:

\$64,180

**Business and Financial****Loan officers**

Loan officers evaluate, authorize, or recommend approval of loan applications for people and businesses.

Entry-level Education:

Bachelor's degree

Median Income:

\$59,820

 <h3>Community and Social Service</h3> <h4>Rehabilitation counselors</h4> <p>Rehabilitation counselors help people with emotional and physical disabilities live independently. They work with clients to overcome or manage the personal, social, and professional effects of disabilities on employment or independent living.</p> <table border="1"> <tr> <td>Entry-level Education: Master's degree</td><td>Median Income: \$33,880</td></tr> </table>	Entry-level Education: Master's degree	Median Income: \$33,880	 <h3>Education, Training and Library</h3> <h4>Teacher assistants</h4> <p>Teacher assistants work under a teacher's supervision to give students additional attention and instruction.</p> <table border="1"> <tr> <td>Entry-level Education: Some college, no degree</td><td>Median Income: \$23,640</td></tr> </table>	Entry-level Education: Some college, no degree	Median Income: \$23,640
Entry-level Education: Master's degree	Median Income: \$33,880				
Entry-level Education: Some college, no degree	Median Income: \$23,640				
 <h3>Computer and Information Technology</h3> <h4>Computer network architects</h4> <p>Computer network architects design and build data communication networks, including local area networks (LANs), wide area networks (WANs), and intranets. These networks range from a small connection between two offices to a multinational series of globally distributed communications systems.</p> <table border="1"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$91,000</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$91,000	 <h3>Health Care</h3> <h4>Radiation therapists</h4> <p>Radiation therapists treat cancer and other diseases in patients by administering radiation treatments.</p> <table border="1"> <tr> <td>Entry-level Education: Associate degree</td><td>Median Income: \$77,560</td></tr> </table>	Entry-level Education: Associate degree	Median Income: \$77,560
Entry-level Education: Bachelor's degree	Median Income: \$91,000				
Entry-level Education: Associate degree	Median Income: \$77,560				
 <h3>Computer and Information Technology</h3> <h4>Information security analysts</h4> <p>Information security analysts plan and carry out security measures to protect an organization's computer networks and systems. Their responsibilities are continually expanding as the number of cyberattacks increases.</p> <table border="1"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$86,170</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$86,170	 <h3>Health Care</h3> <h4>Dental hygienists</h4> <p>Dental hygienists clean teeth, examine patients for signs of oral diseases such as gingivitis, and provide other preventative dental care. They also educate patients on ways to improve and maintain good oral health.</p> <table border="1"> <tr> <td>Entry-level Education: Associate degree</td><td>Median Income: \$70,210</td></tr> </table>	Entry-level Education: Associate degree	Median Income: \$70,210
Entry-level Education: Bachelor's degree	Median Income: \$86,170				
Entry-level Education: Associate degree	Median Income: \$70,210				
 <h3>Education, Training and Library</h3> <h4>Special education teachers</h4> <p>Special education teachers work with students who have a wide range of learning, mental, emotional, and physical disabilities. They adapt general education lessons and teach various subjects, such as reading, writing, and math, to students with mild and moderate disabilities. They also teach basic skills, such as literacy and communication techniques, to students with severe disabilities.</p> <table border="1"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$55,060</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$55,060	 <h3>Health Care</h3> <h4>Radiologic and MRI technologists</h4> <p>Radiologic technologists perform diagnostic imaging examinations, such as x-rays, on patients. MRI technologists operate magnetic resonance imaging (MRI) scanners to create diagnostic images.</p> <table border="1"> <tr> <td>Entry-level Education: Associate degree</td><td>Median Income: \$55,910</td></tr> </table>	Entry-level Education: Associate degree	Median Income: \$55,910
Entry-level Education: Bachelor's degree	Median Income: \$55,060				
Entry-level Education: Associate degree	Median Income: \$55,910				



Health Care

Athletic trainers and exercise physiologists

Athletic trainers specialize in preventing, diagnosing, and treating muscle and bone injuries and illnesses. Exercise physiologists develop fitness and exercise programs that help patients recover from chronic diseases and improve cardiovascular function, body composition, and flexibility.

Entry-level Education:

Bachelor's degree

Median Income:

\$42,690



Health Care

Licensed practical and licensed vocational nurses

Licensed practical nurses (LPNs) and licensed vocational nurses (LVNs) provide basic nursing care. They work under the direction of registered nurses and doctors.

Entry-level Education:

Postsecondary non-degree award

Median Income:

\$41,540



Health Care

Dietitians and nutritionists

Dietitians and nutritionists are experts in food and nutrition. They advise people on what to eat to lead a healthy lifestyle or achieve a specific health-related goal.

Entry-level Education:

Bachelor's degree

Median Income:

\$55,240



Installation, Maintenance and Repair

Medical equipment repairers

Medical equipment repairers install, maintain, and repair patient care equipment.

Entry-level Education:

Associate degree

Median Income:

\$44,570



Health Care

Genetic counselors

Genetic counselors assess individual or family risk for a variety of inherited conditions, such as genetic disorders and birth defects. They provide information and advice to other health care providers, or to individuals and families concerned with the risk of inherited conditions.

Entry-level Education:

Master's degree

Median Income:

\$56,800



Installation, Maintenance and Repair

Aircraft mechanics and service technicians

Aircraft and avionics equipment mechanics and technicians repair and perform scheduled maintenance on aircraft. They also may perform aircraft inspections as required by the Federal Aviation Administration (FAA).

Entry-level Education:

Postsecondary non-degree award

Median Income:

\$55,230



Health Care

Dental assistants

Dental assistants have many tasks, ranging from providing patient care and taking x-rays to recordkeeping and scheduling appointments. Their duties vary by state and by the dentists' offices where they work.

Entry-level Education:

Postsecondary non-degree award

Median Income:

\$34,500



Installation, Maintenance and Repair

Electrical and electronics repairers, commercial and industrial equipment

Electrical and electronics installers and repairers install, repair, or replace a variety of electrical equipment in telecommunications, transportation, utilities, and other industries.

Entry-level Education:

Postsecondary non-degree award

Median Income:

\$51,220



Installation, Maintenance and Repair

Heating, air conditioning, and refrigeration mechanics and installers

Heating, air conditioning, and refrigeration mechanics and installers—often called HVACR technicians—work on heating, ventilation, cooling, and refrigeration systems that control the temperature and air quality in buildings.

Entry-level Education:
Postsecondary non-degree award

Median Income:
\$43,640



Life, Physical and Social Science

Conservation scientists and foresters

Conservation scientists and foresters manage overall land quality of forests, parks, rangelands, and other natural resources.

Entry-level Education:
Bachelor's degree

Median Income:
\$59,060



Life, Physical and Social Science

Environmental science and protection technicians, including health

Environmental science and protection technicians do laboratory and field tests to monitor the environment and investigate sources of pollution, including those affecting public health. Many work under the supervision of environmental scientists and specialists, who direct the technicians' work and evaluate their results.

Entry-level Education:
Associate degree

Median Income:
\$41,240



Life, Physical and Social Science

Forensic science technicians

Forensic science technicians help investigate crimes by collecting and analyzing physical evidence. Many technicians specialize in either crime scene investigation or laboratory analysis. Most forensic science technicians spend some time writing reports.

Entry-level Education:
Bachelor's degree

Median Income:
\$52,840



Life, Physical and Social Science

Forest and conservation technicians

Forest and conservation technicians measure and improve the quality of forests, rangeland, and other natural areas.

Entry-level Education:
Associate degree

Median Income:
\$33,920



Life, Physical and Social Science

Epidemiologists

Epidemiologists are public health professionals who investigate patterns and causes of disease and injury in humans. They seek to reduce the risk and occurrence of negative health outcomes through research, community education, and health policy.

Entry-level Education:
Master's degree

Median Income:
\$65,270



Life, Physical and Social Science

Geological and petroleum technicians

Geological and petroleum technicians provide support to scientists and engineers in exploring and extracting natural resources, such as minerals, oil, and natural gas.

Entry-level Education:
Associate degree

Median Income:
\$52,700



Life, Physical and Social Science

Urban and regional planners

Urban and regional planners develop plans and programs for the use of land. Their plans help create communities, accommodate population growth, and revitalize physical facilities in towns, cities, counties, and metropolitan areas.

Entry-level Education:
Master's degree

Median Income:
\$65,230

 <h3>Management</h3> <h4>Advertising, promotions and marketing managers</h4> <p>Advertising, promotions, and marketing managers plan programs to generate interest in a product or service. They work with art directors, sales agents, and financial staff members.</p> <table border="1" data-bbox="187 593 796 720"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$115,750</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$115,750	 <h3>Media and Communication</h3> <h4>Film and video editors and camera operators</h4> <p>Film and video editors and camera operators manipulate images that entertain or inform an audience.</p> <table border="1" data-bbox="856 593 1481 720"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$46,280</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$46,280
Entry-level Education: Bachelor's degree	Median Income: \$115,750				
Entry-level Education: Bachelor's degree	Median Income: \$46,280				
 <h3>Management</h3> <h4>Human resources managers</h4> <p>Human resources managers plan, direct, and coordinate the administrative functions of an organization. They oversee recruiting, interviewing, and hiring of staff; consult with top executives on strategic planning; and serve as a link between an organization's management and its employees.</p> <table border="1" data-bbox="187 1051 796 1045"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$99,720</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$99,720	 <h3>Media and Communication</h3> <h4>Technical writers</h4> <p>Technical writers, also called technical communicators, prepare instruction manuals, journal articles, and other supporting documents to communicate complex and technical information more easily. They also develop, gather, and disseminate technical information among customers, designers, and manufacturers.</p> <table border="1" data-bbox="856 1051 1481 1045"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$65,500</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$65,500
Entry-level Education: Bachelor's degree	Median Income: \$99,720				
Entry-level Education: Bachelor's degree	Median Income: \$65,500				
 <h3>Management</h3> <h4>Training and development managers</h4> <p>Training and development managers plan, direct, and coordinate programs to enhance the knowledge and skills of an organization's employees. They also oversee a staff of training and development specialists.</p> <table border="1" data-bbox="187 1522 796 1510"> <tr> <td>Entry-level Education: Bachelor's degree</td><td>Median Income: \$95,400</td></tr> </table>	Entry-level Education: Bachelor's degree	Median Income: \$95,400	 <h3>Media and Communication</h3> <h4>Sound engineering technicians</h4> <p>Broadcast and sound engineering technicians set up, operate, and maintain the electrical equipment for radio and television broadcasts, concerts, sound recordings, movies and in office and school buildings.</p> <table border="1" data-bbox="856 1522 1481 1510"> <tr> <td>Entry-level Education: Postsecondary non-degree award</td><td>Median Income: \$41,200</td></tr> </table>	Entry-level Education: Postsecondary non-degree award	Median Income: \$41,200
Entry-level Education: Bachelor's degree	Median Income: \$95,400				
Entry-level Education: Postsecondary non-degree award	Median Income: \$41,200				
 <h3>Management</h3> <h4>Elementary, middle and high school principals</h4> <p>Elementary, middle, and high school principals are responsible for managing all school operations. They manage daily school activities, coordinate curricula, and oversee teachers and other school staff to provide a safe and productive learning environment for students.</p> <table border="1" data-bbox="187 1522 796 1953"> <tr> <td>Entry-level Education: Master's degree</td><td>Median Income: \$87,760</td></tr> </table>	Entry-level Education: Master's degree	Median Income: \$87,760	 <h3>Personal Care and Service</h3> <h4>Funeral service managers</h4> <p>Funeral service workers organize and manage the details of a funeral.</p> <table border="1" data-bbox="856 1522 1481 1953"> <tr> <td>Entry-level Education: Associate degree</td><td>Median Income: \$51,600</td></tr> </table>	Entry-level Education: Associate degree	Median Income: \$51,600
Entry-level Education: Master's degree	Median Income: \$87,760				
Entry-level Education: Associate degree	Median Income: \$51,600				



Personal Care and Service

Recreation workers

Recreation workers design and lead leisure activities for groups in volunteer agencies or recreation facilities, such as playgrounds, parks, camps, aquatic centers, and senior centers. They may lead activities such as arts and crafts, sports, adventure programs, music, and camping.

Entry-level Education:

Bachelor's degree

Median Income:

\$22,240



Protective Service

Firefighters

Firefighters control fires and respond to other emergencies, including medical emergencies.

Entry-level Education:

Postsecondary non-degree award

Median Income:

\$45,250



Personal Care and Service

Hairdressers, hairstylists, and cosmetologists

Barbers, hairdressers, and cosmetologists provide hairstyling and beauty services.

Entry-level Education:

Postsecondary non-degree award

Median Income:

\$22,770



Sales

Sales engineers

Sales engineers sell complex scientific and technological products or services to businesses. They must have extensive knowledge of the products' parts and functions and must understand the scientific processes that make these products work.

Entry-level Education:

Bachelor's degree

Median Income:

\$91,830

Glossary

Admission process: the application and evaluation process a prospective student goes through to be accepted to a school.

Advanced Placement (AP): a program of college-level courses taught in high schools to prepare students for Advanced Placement (AP) tests. These tests, administered by the College Board, provide the opportunity for students to earn college credit.

Associate degree: a degree awarded by community colleges, technical schools and some universities after completion of a program of approximately 60 credit hours (also called a two-year degree).

Bachelor's degree: a degree awarded by a college or university after completion of an academic program of approximately 120 credit hours (sometimes called a four-year degree).

Career: a professional field or occupation that one trains for or undertakes as an intentional path.

Class rank: a measure of a student's grades compared to the other students in the class.

College: an institution that offers classes and instruction leading to a bachelor's degree and/or vocational training and certification.

Community college: a two-year school that offers associate degrees and workforce certification programs (sometimes called a junior college).

Commuter student: student who lives off-campus and travels to the school for courses and other activities.

Credit-by-exam: tests that provide the opportunity to earn college or high school credit by passing a standardized test without taking a course.

Dual-credit courses: high school courses that count toward high school graduation requirements and earn college credit hours.

Fees: see tuition and fees.

Free Application for Federal Student Aid (FAFSA): an application that includes financial information about a student and his or her family and is used to determine the student's eligibility for financial aid.

GED: a set of tests that allow people who did not graduate from high school to obtain high school credentials.

GPA (grade point average): an average of a student's grades in all classes taken, often reported on a four-point scale.

Human capital: knowledge, talent, experience and skills that people possess.

In-state tuition: the tuition paid by students who reside in the same state as the college or university they attend.

International Baccalaureate Program (IB Program): a program of challenging high school classes with a global focus. Courses include examinations that may allow a student to earn college credit.

Junior college: see community college.

Liberal arts college: an undergraduate school that awards degrees in areas such as English, history, economics, foreign languages, math and science.

Major: the academic discipline in which a student takes most of his or her classes.

Master's degree: a one- to two-year graduate degree that is earned after a bachelor's degree. The field of study can be an academic discipline or professional field.

Out-of-state tuition: the tuition paid by students who reside in a different state from the college or university they attend.

Private school: a college or university that is administered by a private organization and receives the majority of its funding from tuition, fees and donations to the school.

Professional degree: a graduate-level degree that provides training in specific skills related to a career, such as medicine or law.

Public school: a college or university that is administered by a local or state government and receives funding from government sources.

Religious affiliation: the historic or current association of a college with a religious faith. Some of these institutions may require specific religious instruction.

Residential school: an educational institution that provides housing for students.

Room and board: the cost of living and eating on campus.

Six-year graduation rate: the portion of students at a college or university who complete a bachelor's degree within six years.

Student-faculty ratio: the number of students per member of the faculty.

Technical school (vocational school): post-high-school institutions that provide technical training. Programs sometimes lead to certifications or licenses.

Transcript: an official record of a student's grades.

Tuition and fees: cost of instruction and facility use (classes) at an educational institution. Tuition can be quoted as a cost per credit hour or as a flat rate for a range of credit hours. Fees include general fees, such as for use of libraries and for student activities, and may include course-specific costs, such as lab fees.

Undergraduate classes: classes offered to students who have not earned a college degree.

University: an institution usually made up of multiple colleges (such as liberal arts, medical or business) that offers bachelor's, master's and doctoral degrees.

Vocational school: see technical school.

Weighted GPA: a grade point average (GPA) that is calculated with extra points added to the grade value for honors or advanced classes.