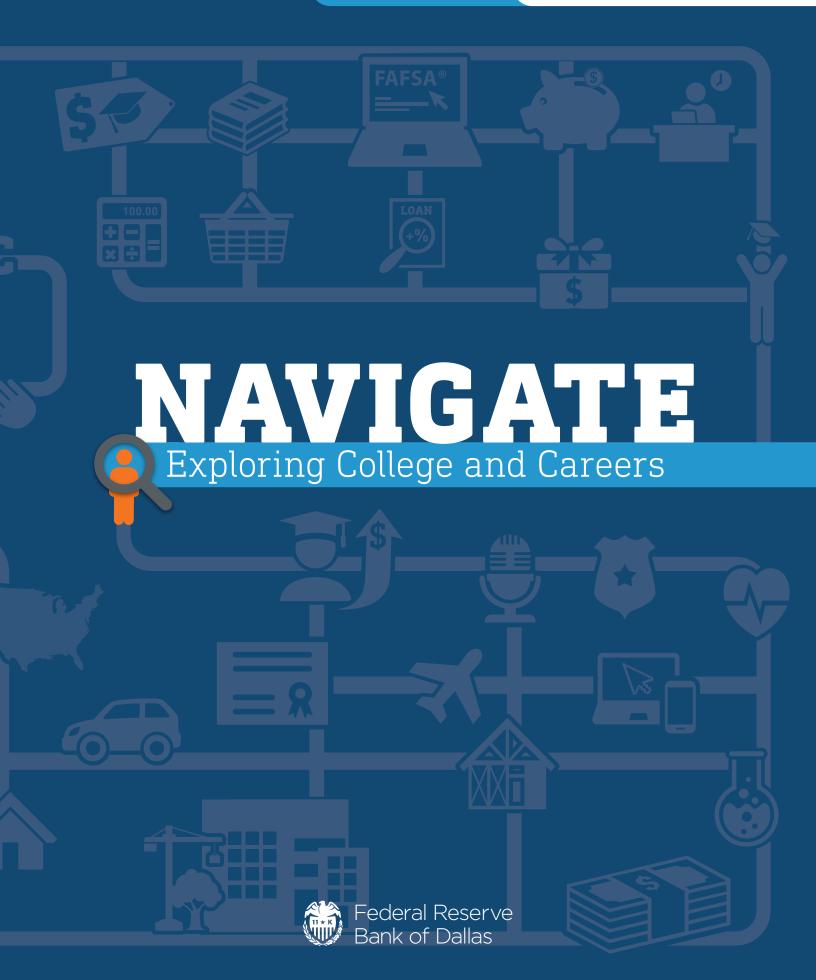
Student Workbook Name:



## **NAVIGATE:** Exploring College and Careers is produced by the Economic Education division, Communications & Outreach Department, Federal Reserve Bank of Dallas. The Federal Reserve Bank of Dallas is part of the Federal Reserve System, the central bank of the United States. The Dallas Fed has branch offices in El Paso, Houston and San Antonio. Contact the Economic Education Developed by: Authors team at Dal.EconEd@dal.frb.org Princeton Williams, Dallas Lupe Mares, El Paso Susan Kizer, Houston Graphic Designer and Illustrator Dallas Fed Economic Education Samantha Coplen materials are available at www.dallasfed.org/educate. Editor Jennifer Afflerbach NAVIGATE: Exploring College and Careers was inspired by Let's Talk About College, a program developed by the Federal Reserve Bank of Boston and the Citizens School.

# Exploring College and Careers

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#### Welcome to NAVIGATE: Exploring College and Careers.

This handbook is designed to be used by students as they explore careers and the educational requirements necessary to excel in the workforce. Students will:

- examine various careers and educational requirements;
- evaluate different educational opportunities after high school;
- identify academic choices and extracurricular activities that will enhance their application;
- · research the cost of postsecondary education;
- · explore types of financial aid;
- imagine a path to success.

The exploration and investigation of careers and college will continue through students' high school years. Many students may not be familiar with the application process and admission requirements of education after high school. **NAVIGATE** provides information to begin preparing for this journey. Financial barriers to education can be overcome through use of financial aid that is available from public and private sources. Students are encouraged to work closely with teachers, career centers and school counselors throughout their high school years.

With planning, the goal of postsecondary education is attainable for all.

## Unit 1



## **Exploring Careers**



Education pays! Adults with more education can expect to earn higher wages.



Of the hundreds of careers that you could pursue, many will require education or certification beyond high school graduation.

#### **Career Path**



#### **Nurse Anesthetist/Nurse Practitioner**

I have always wanted to pursue a career in medicine. I earned a bachelor's degree in nursing and was hired as soon as I graduated. I enjoy the flexibility of my career. I work long hours, but I also have three-day weekends. I enjoy the time off and like to spend it with my friends and family. Two years ago, I decided to go back to school to get my master's degree and become a certified registered nurse anesthetist (CRNA). It was the best decision of my career.



Median Wage: \$123,780

**Expected Job Growth 2021-31: 40%** 

## **Think About This**



In 2021, workers with a bachelor's degree made \$525 more every week than high school graduates.

That's more than \$1 million in a typical working lifespan!

Calculated from www.bls.gov/careeroutlook/2022/data-on-display/education-pays.htm



## Human capital is...

## My Top Five

List five skills or talents that you already have. These might include your favorite subject at school or a hobby that you are passionate about.

- 1.
- 2.
- 3.
- 4.
- 5.

#### The Road Ahead

Now list three ways you could develop your knowledge, skills and talents.

- 1.
- 2.
- 3.



## **Explore:** Careers

#### **Architecture and Engineering**

- O Aerospace Engineers O Industrial Engineers
- O Architects
- Surveyors
- O Drafters



#### **Arts and Design**

- O Fashion Designers
- O Graphic Designers
- Multimedia Artists and Animators



#### **Building and Grounds Cleaning**

- Janitors and Building Workers
- O Pest Control Workers

#### **Business and Financial**

- Accountants
- Logisticians
- O Financial Analysts O Management
  - Analysts
- O Human Resources **Specialists**



#### Community and Social Service

- O Mental Health Counselors
- O School and Career Counselors
- O Probation Officers O Social Workers

#### **Computer and Information** Technology

- O Computer Systems Analysts
- O Database Administrators
- O Software Developers
- O Web Developers





#### Construction and Extraction

- O Carpenters O Plumbers
- O Electricians O Steel Workers



#### Education, Training and Library

- O Archivists, Curators and Museum Workers
- O Librarians
- O Instructional Coordinators
- O Teachers

#### **Entertainment and Sports**



- O Actors
- O Musicians and O Coaches and
  - Singers
  - Scouts O Producers and Directors



#### Farming, Fishing and Forestry

- O Agricultural Workers
- Fishers
- O Forest and Conservation Workers



#### Food Preparation and Serving

- O Chefs O Food Preparation Workers

#### **Health Care**

- Audiologists

O Physical Therapists

- O Dentists
- O FMTs and
- O Pharmacists
- **Paramedics**
- Physician **Assistants**
- Radiologic or MRI **Technologists**
- Surgical **Technologists**
- Veterinarians

#### Installation, Maintenance and Repair

- O Aircraft and Avionics Mechanics
- O Diesel Mechanics
- O Automotive Service Technicians
- O Medical Equipment Repairers
- O Heating and Air-Conditioning Mechanics and Installers



More options next page



#### Legal



- O Court Reporters O Lawyers
- O Judges and Hearing Officers
- O Paralegals and Legal Assistants

#### Life, Physical and Social Science







- O Medical Scientists
- O Chemists and Materials Scientists
- O Political Scientists
- Psychologists

#### Management



 Administrative Services Managers

- Compensation and Benefits Managers
- Construction Managers
- O Financial Managers
- O Preschool and Child Care Center Directors
- Sales Managers

#### Math



- Operations Research Analysts
- Statisticians



#### **Media and Communication**

- Announcers
- Photographers
- Editors
- O Public Relations **Specialists**
- Interpreters
  - and Translators O Writers and Authors

#### **Military**



O Air Force

O Navy

O Marines

#### Office and Administrative Support



- O Bookkeeping, Accounting, O Postal Service and Auditing Clerks
  - Workers
  - O Desktop Publishers
- Receptionists
- O Financial Clerks
- O Tellers



#### Personal Care and Service

- O Animal Care and Service Workers
- O Barbers, Hairdressers and Cosmetologists
- O Childcare Workers
- O Fitness Trainers and Instructors
- O Funeral Service Occupations
- O Recreation Workers



#### **Production**

- O Assemblers and **Fabricators**
- O Welders, Cutters Solderers and Brazers
- Machinists and Tool Woodworkers and Die Workers
- O Quality Control Inspectors



#### **Protective Service**

- O Correctional Officers O Police and Detectives
- Firefighters
- O Security Guards and Gaming Surveillance Officers

#### **Sales**

- Cashiers
- O Insurance Sales Agents
- O Securities, Commodities and Financial
- O Real Estate Brokers and Sales Agents
- O Travel Agents

#### Transportation and Material Moving



- O Air Traffic Controllers
- O Airline and
- Commercial Pilots

O Bus Drivers

- Truck Drivers O Railroad Occupations
- - O Water Transportation **Occupations**

O Heavy and Tractor-Trailer

O Delivery Truck Drivers and Driver/Sales Workers

Other:



You can learn about many different careers by using the Occupational Outlook Handbook from the Bureau of Labor Statistics. Every career profile describes the job, the work environment, educational requirements and median pay. Find out more at www.bls.gov/ooh.



## **Explore:** Your Career



**Describe where you work:** 

My career choice:





**Explain what you do:** 

## How much education will you need?

- High school diploma or GED
- Postsecondary nondegree award (certification)
- Associate degree
- Bachelor's degree
- Master's degree
  - O Doctoral or professional degree

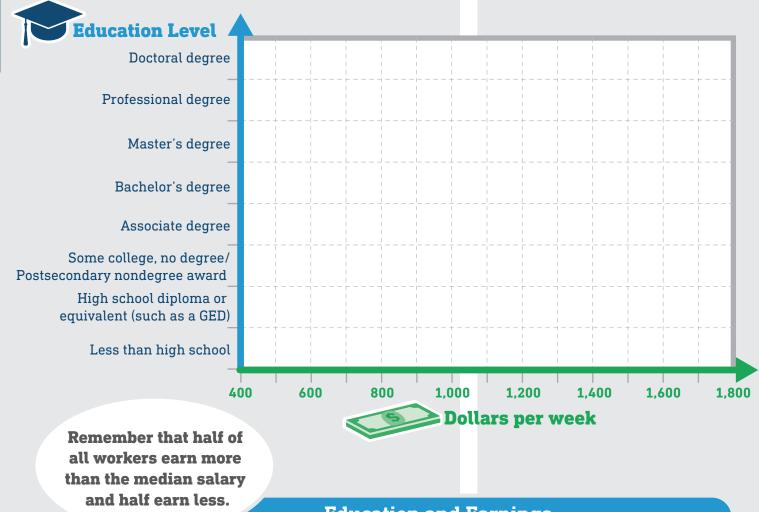


How much will you earn?





## **Explore:** Education and Earnings



### **Education and Earnings**

- 1. Is the median salary of the career you researched higher or lower than the median salary of other careers that require a similar level of education?
- 2. Why do you think that the career you researched pays more or less than the median?
- 3. Does this change the way you think about the career?

## Unit 2





As of the 2019-20 school year, there are nearly 4,000 degree-granting institutions in the United States. Every school is unique and meets the needs of its students differently.





From cost to class size, from student body to extracurricular activities, there are advantages and disadvantages to every college.

#### **Career Path**



#### Heating, Ventilation and Air Conditioning

As a senior in high school, I didn't know exactly what an HVAC tech was, but after talking with my career counselor, this sounded like a great fit for me. I like working with my hands, solving problems and fixing machinery. The community college offers a 16-month program that prepared me for my state exam and certification. Every day my job is different—new locations, new problems. I enjoy the challenge and one day hope to open my own business.



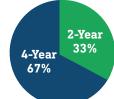
Median Wage: \$48,630

Expected Job Growth 2021-31: 5%

#### **Think About This**



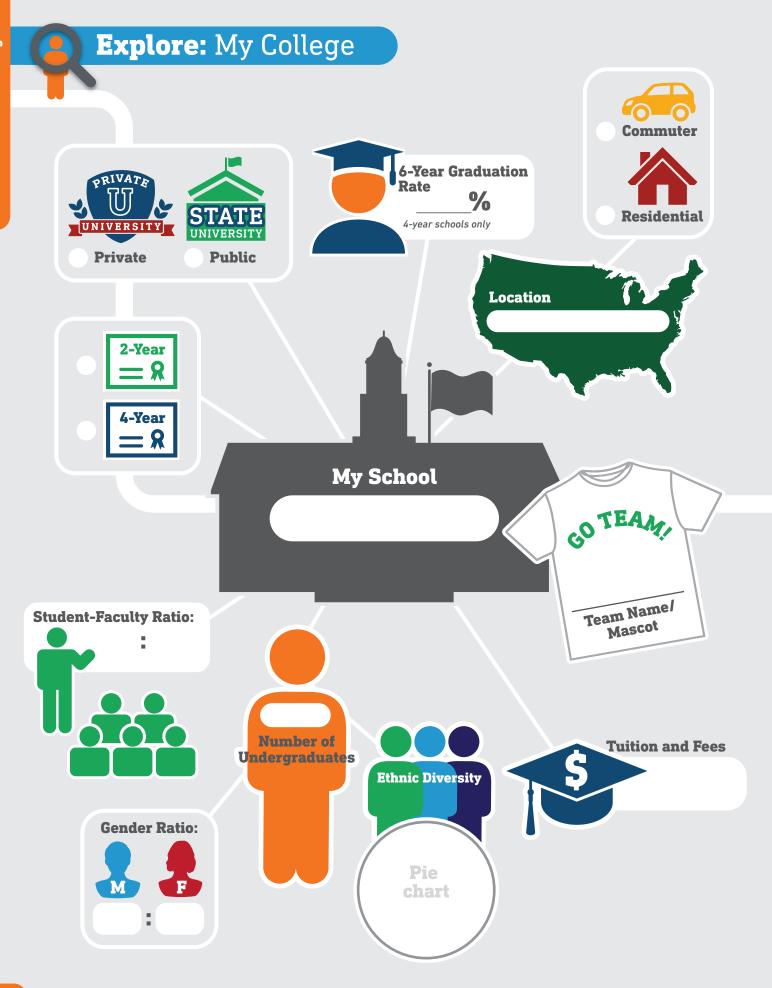
In 2021, there were 3,931 schools in the U.S. from which students could earn a degree.



Public Private 60% 40%

https://nces.ed.gov/programs/digest/d21/tables/

dt21\_317.10.asp?current=yes



## **Gallery Walk Notes**



## **Private University**

Common Characteristics

**Advantages** 

**Disadvantages** 



## **Public University**

Common Characteristics

**Advantages** 

**Disadvantages** 



#### **Community College**

Common Characteristics

**Advantages** 

**Disadvantages** 





## **Explore:** What I Learned About...



## **Private University**

**Advantages** 

Disadvantages



## **Public University**

**Advantages** 

**Disadvantages** 

## **Community College**

**Advantages** 



**Disadvantages** 

## Unit 3



## **How Do I Get In?**



Your grades matter, and so do the courses that you take. Colleges look at everything. They even consider your scores on national tests.



Get involved! Find something you love.

Extracurricular activities—both in and out of school—
are an important part of your college application.

#### **Career Path**



#### **High School Teacher**

I love science, and as a high school science teacher I get to share that passion every day. I attended an out-of-state university and double majored in science and education. My teaching career is everything I hoped it would be. To earn additional income, I also coach athletics both at school and competitively during the summer.



Median Wage: \$61,820 Expected Job Growth 2021-31: 5%

#### **Think About This**



How do college-bound high school seniors spend at least one hour during a typical week?

Exercising or playing sports: 86%





Working: 54%

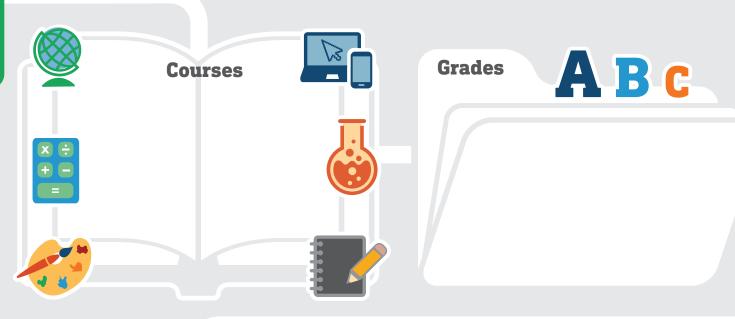




http://www.heri.ucla.edu/publications



## **Explore:** Your Path to College

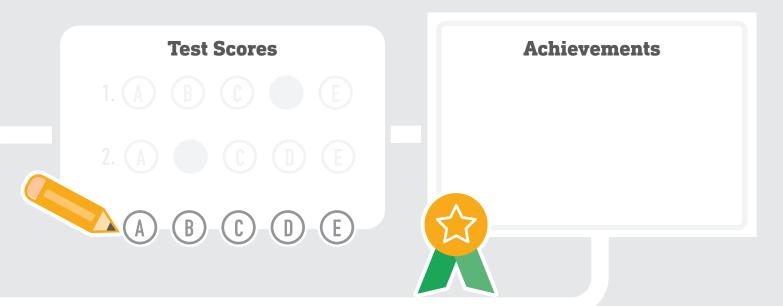








Track Your Extracurricular Activities at School			





Track Your Extracurricular Activities Outside of School			

## You've been accepted!

**Draw Your** College Logo

Dear	,



Sincerely,

Ms. Dee Gree Office of Admissions

## Unit 4



## **How Much Does College Cost?**



Besides tuition and fees, the cost of continuing your education after high school includes books and supplies, room and board, personal expenses and transportation.



Weigh your choices! The cost of attending college varies widely among schools.

#### **Career Path**



#### **Phlebotomist**

As a phlebotomist, I meet lots of interesting people and serve an important role in the medical community. I earned my certificate through a program at my local community college. I completed my program in three months and found a job at our county hospital. Recently I applied for and got a position working with our mobile blood drive team. We travel to locations around the city and provide opportunities for individuals to donate blood.



**Median Wage: \$37,380** 

**Expected Job Growth 2021-31: 10%** 

#### **Think About This**



#### 2022-23 Tuition and Fees

2-Year Community College

\$3,860

4-Year Public University (In State)

4-Year Public University (Out-of-State)

\$10,940

+ rear rabits offiversity (out or state)

\$28,240

4-Year Private Nonprofit University

\$39,400

https://research.collegeboard.org/media/pdf/trends-in-college-pricing-student-aid-2022.pdf



**Tuition and Fees** 



**Room and Board** 

**Personal** 

## What expenses should I expect when I go to college?

**Books and Supplies** 





**Transportation** 

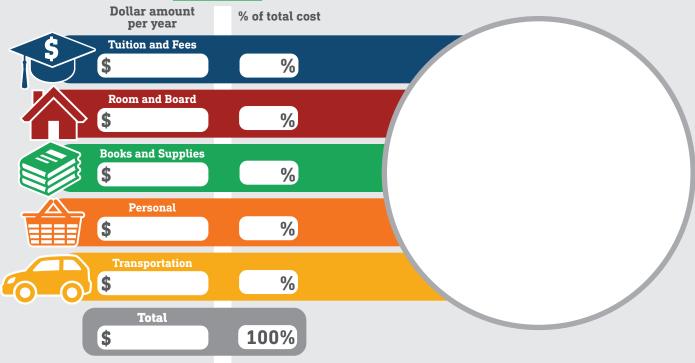






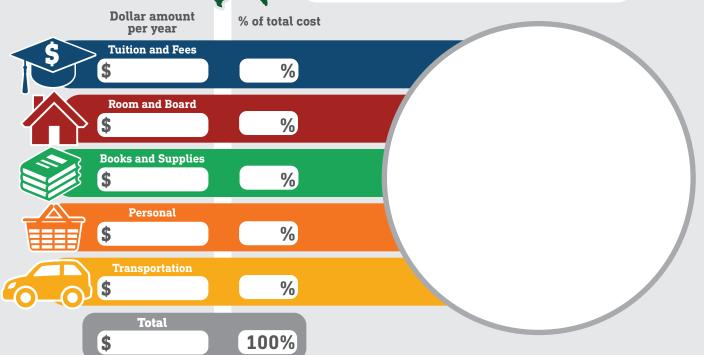


#### **In-State 4-Year Public University**



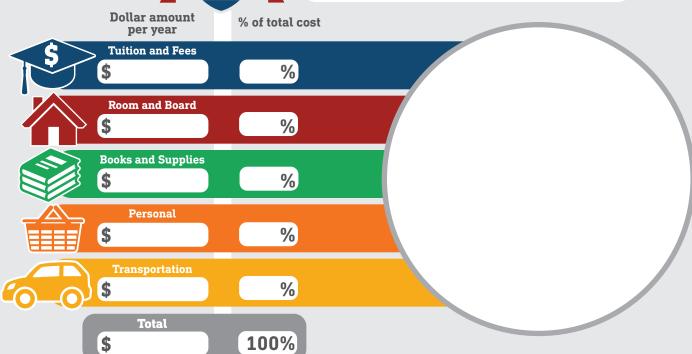


#### **Out-of-State 4-Year Public University**



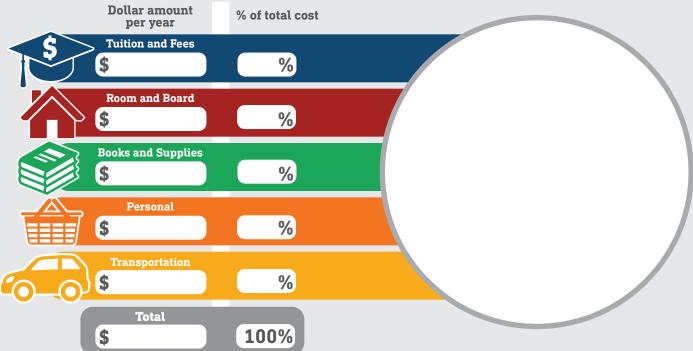


#### **4-Year Private University**



## COMMUNITY

#### 2-Year Community or Junior College





## **Explore:** College Life on a Budget

#### Personal Expenses

**National Average** 

\$2,170 <sup>p</sup>

\$241 per month

(School year = 9 months)

#### **Create a Budget**

Some possible expenses that are included in this budget are listed below. They currently total \$725. You must reduce the expenditures to \$241 or plan to get a part-time job.



\$725

Change

New Amount



Was working with this budget difficult?

Some students work part time while they are enrolled in school. How would your choices change if you had an extra \$300 income from a part-time job each month?

 $<sup>^*</sup>$ Source: The College Board, Annual Survey of Colleges, 2022



## **Practice Creating a Budget**



#### **Practice Makes Perfect**

Making a budget is a skill that will last a lifetime. Use this table to start today!

- Write down your income.
  It might be an allowance from your parents or money that you earn from a job.
- Record the money that you spend. Include everything from downloads to snacks to clothing and more expensive items.
- Remember that when your income is greater than your expenses, you can save money for a future goal. Look for places to reduce your spending and start saving!

My Budget	· ·
	Current Income
Income Source:	\$
Total Income	\$
	Expenses
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
Total Expenses	\$
Available to Save	\$

## Unit 5



## **Paying for College**



Money to help pay for college is available. Government, schools and even private sources all provide financial aid to students. Often, completing the FAFSA is the first step.



Know the difference! Scholarships and grants do not have to be paid back. Loans must be paid back with interest.

#### **Career Path**



#### **Civil Engineer**

The engineering project I am most proud of is the renovation and expansion our company provided for the airport. I earned a four-year degree in engineering from a state college and found a job right out of school. While most of my time is spent indoors, it is always exciting to go on-site to check on projects I am managing. I use the skills I learned in college every day, especially the math and physics. The most surprising part of my job is how important my writing skills are, since a big part of my job involves communication—reporting and presenting data to others.



Median Wage: \$88,050 Expected Job Growth 2021-31: 7%

#### **Think About This**





More 87%

of undergraduate students receive some type of financial aid.

https://nces.ed.gov/FastFacts/display.asp?id=31



## How do I pay for college?

You and your family may have already started saving for your education. Even saving a small amount can make a difference in your ability to afford college.

What is financial aid?



More than 87 percent of students (4-yr university) get some type of help to pay for college. This help is called financial aid. To receive most types of financial aid, you and your parents will have to fill out the Free Application for Federal Student Aid (FAFSA) during your senior year. In your FAFSA, you will provide information about your family's finances, like income, savings, debts and assets.

https://nces.ed.gov/FastFacts/display.asp?id=31

### There are three main types of financial aid:













#### Gift Aid



Gift aid is money that does not have to be repaid. It can be in the form of either grants or scholarships.

**Grants** are often based on financial need. Grants can come from the government, your college or a private or nonprofit organization. You might have to pay back part or all of a grant if you don't follow the grant's requirements. The FAFSA is the application for all federal grants.

**Scholarships** come in many forms. Some are merit-based because they depend on things like grades, volunteer work, community involvement, athletics, music, etc. Others are need-based because they are determined by your family's income. There are scholarships based on other criteria—military service, where you live, your ethnicity, whether your parents went to college or not, among others.

Scholarships come from many sources. Your college will probably offer many types. Other scholarships are offered by companies, nonprofits, religious groups, and various clubs and organizations. It takes some research to find these, and they will require a separate application.

A scholarship might pay the entire cost of your tuition, or it might be a one-time award of a few hundred dollars. It's worth applying for scholarships because they reduce the cost of your education.

#### **Work Study**



LOAN

Work-study programs provide you with a job while you're enrolled in school. As with grants, eligibility is determined by the FAFSA. You are paid directly and may use work-study money to pay for school and other expenses.

#### **Student Loans**

Unlike gift aid and work study, student loans have to be repaid with interest. If you decide to take out a loan, make sure you understand who is making the loan and the terms and conditions of the loan. Student loans can come from the federal government or from private sources. Loans made by the federal government usually offer borrowers lower interest rates and have more flexible repayment options, like not making payments while you are enrolled in school. Private loans are available from banks or credit unions. It is important to understand the interest rate, fees and other features of any loan that you are offered.

#### Your school can help!



Remember, most financial aid begins with the FAFSA. Researching and applying for financial aid can take some time and effort, but the rewards can be worth it. Your counselor or teachers can help you explore your options. There's never a reason to pay someone to find financial aid for you or to help you complete or submit the FAFSA.



## **Explore:** Paying for College

## Fill in the Blanks

1.	are often based on financial need and do not need to be repaid unless you do not complete the requirements.
2.	are a type of gift aid that are awarded based on merit, need or other criteria.
3.	is a type of aid that allows a student to earn money while enrolled in school that can be used to pay for educational and other expenses.
4.	are a type of financial aid that must be repaid with interest.
5.	The is a free application for financial aid. It is required for all types of aid from the U.S. government and used by many other financial aid providers.
6.	The money that you or your family have earned and not spent is called  The money can be used for educational and other expenses.

#### **Create an Information Web**

Use the answers from above as key words and construct your web.



## Unit 6



## **Future Paths**



Many careers require education beyond high school. There are many choices for that training.



Your application depends on both academics and extracurricular activities.



Education is not free. There are many costs associated with attending college, but help is available.

#### **Career Path**



#### **Business Logistician**

My job is always a challenge, whether I'm making sure resources arrive on time, checking that departments have the materials they need to keep production moving or ensuring that the product leaves the plant in a timely manner. I earned a four-year degree in logistics from a private university and was hired by a company I had interned with during my summer break. I enjoy the fast pace and opportunity to interact with different people during the day.



Median Wage: \$77,030
Expected Job Growth 2021-31: 22%

#### **Think About This**



Studies show that, besides having a higher median salary and a lower unemployment rate, college graduates:

- ✓ are more satisfied in their jobs
- ✓ are more likely to exercise
- ✓ are less likely to smoke and less likely to be obese
- ✓ are more likely to be civically involved and vote

http://trends.collegeboard.org/education-pays

http://trends.collegeboard.org/sites/default/files/education-pays-2013-full-report-022714.pdf https://www.pewresearch.org/social-trends/2016/10/06/3-how-americans-view-their-jobs/



## **Explore:** Planning Your Future



You can start today preparing for a career. The courses that you take in high school, the clubs that you join, the activities that you pursue and the experiences that you have can all develop your human capital that will make you a more valuable employee.

Pick a career from the cards and read the description. Think about some things that you could do in high school to prepare for that career.

#### Courses

## Extracurricular at School

## Extracurricular

Outside of School

#### References

Imagine that you are 25 years old working in the career on your card. You receive this letter inviting you to write a personal narrative that will be published by your high school.



Dear Graduate.

Our student council is excited to offer incoming freshmen a book about recent graduates from our high school. We are hoping that the book will inspire them to continue their education after high school and inform them of the steps that students from our school took to achieve that goal.

As a successful graduate of our high school, would you write an essay for the book describing your path through high school and beyond? Please address these questions in your essay.

- What did you do in high school to prepare for your career?
- What type of education did you pursue after high school? How did you pick the school? What did you study?
- What challenges did you face? How did you overcome them?

We look forward to sharing with our incoming students the details about the choices that contributed to your success.

Sincerely,

The Student Council President

#### **Personal Narrative Questions**

- 1. What did you do in high school to prepare for your career?
- 2. What type of education did you pursue after high school? How did you pick the school? What did you study?
- 3. What challenges did you face? How did you overcome them?







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

**Advanced Placement (AP)**: a program of collegelevel 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

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

for financial aid.

**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.

Award or Recognition	Organization	Date	Contact or Reference	Brief Description
7				

