

# Lesson: Exploring Careers in Economics

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## Lesson by

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## Lesson description

Students who become excited about their economics course and consider continuing their study of economics after high school may lose their enthusiasm when someone asks them the perennial question, what are you going to do with an economics major? Although economics is really a social science, many consider it a business major—and most people know what managers, accountants, and marketers do. But aside from a career in politics or as an entrepreneur, what can a background in economics prepare students for, and where are the jobs? What kinds of skills are most important for students who want to pursue a career in economics? This lesson explores career paths in economics and related fields as well as the importance of diversity in analyzing economic issues.

## Concepts

African-American economists  
African-American history  
Careers  
Career goals  
Diversity

Economics  
Economists  
Human capital  
Women in economics

## Objectives

Students will be able to:

- Identify prominent people who have studied economics and possible career paths for economists
- Recognize the contributions of African-Americans to the economics field
- Describe the type of work economists do, the outlook for the field, education needed, and median pay
- Compare the pay for economists to other related fields
- Distinguish different types of economists and the topics they study
- Compare the job market for economists across states
- Identify career fields that are related to economics
- Compare and contrast pay and educational requirements for economists and fields related to economics
- Identify skills needed to work in a field that uses economics and how the study of economics can be useful in those fields

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## Time required

75 minutes

## Materials

Copy of the article “I Want to Study Economics, but What Do Economists Do?”  
<https://frbatlanta.org/education/publications/extra-credit/2012/spring/i-want-to-study-economics-but-what-do-economists-do.aspx>

Copy of the list of economics majors:  
[http://merrimack.edu/academics/liberal\\_arts/economics/famous\\_people\\_who\\_have\\_economics\\_degree.php](http://merrimack.edu/academics/liberal_arts/economics/famous_people_who_have_economics_degree.php)

Copy of the article “Building Diversity in the Field of Economics,” either printed or accessed online

Handout 1: Discussion Questions for “Building Diversity in the Field of Economics” for each student (if used as a written assignment; question sheet can also be used as a guide for a general classroom discussion)

**Activity Sheet 1: Exploring Careers in Economics** for each student

**Activity 2: Economists and Related Jobs:** Slips of paper with jobs cut out, one slip for each student or student pair, construction paper or cardstock if desired to mount slips of paper

Handout 2: Economists and Related Careers Fact Sheet for each student (can also be displayed on a document camera or Smart Board)

Internet access (for student research)

## Preparation

Read the lesson description. Prior to conducting the lesson, read the articles “I Want to Study Economics, But What Do Economists Do?” and the list of economics majors article to prepare for the introductory discussion. Copy the article “Building Diversity in the Field of Economics” (if students are not reading it online), Handout 1: Discussion Questions for “Building Diversity in the Field of Economics” if using as an individual assignment, and Activity Sheet 1 for each student. Copy Activity 2: Economists and Related Jobs and cut into strips; mount on card stock or construction paper if desired. Copy Handout 2: Economists and Related Careers Fact Sheet for each student, or arrange to show on a document camera or Smart Board.

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### Procedure

1. To begin the lesson, ask students what comes to mind when they think of an economist. (*Answers will vary, but may include boring, male, good at math, geeky, rich.*)

Ask students the following: “What do Ted Turner, the former CEO of Microsoft (and current owner of the LA Clippers), the CEO of Hewlett Packard, Donald Trump, Warren Buffett, Presidents Ford, Reagan, and George H.W. Bush, and Fed Chair Janet Yellen have in common with Mick Jagger, Arnold Schwarzenegger, and Karina Smirnoff from *Dancing with the Stars*?” (*Answers will vary, but may include they are famous, they are on TV, they belong to a similar political party.*)

The answer, they all majored in economics. Other illustrious econ grads include Walmart founder Sam Walton and Former Supreme Court Justice Sandra Day O'Connor as well as many heads of state worldwide and numerous stars of the sporting world, stage, and screen. (You may want to share with students these and other examples found on [this list of economics majors](#)).

2. Tell students the following: the American Economic Association categorizes five areas that draw the most economics majors after graduation:
  - a. the corporate world
  - b. economic consulting
  - c. law
  - d. government and nonprofit work
  - e. academics and research

Have students identify people from the list or others they may know who majored in economics that fit into each of these five categories.

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### Examples

- a. The corporate world (Ted Turner, Donald Trump, Sam Walton, Meg Whitman [CEO of Hewlett Packard], Steve Ballmer [former Microsoft CEO], Warren Buffett)
  - b. Economic consulting (many people have served in this role—Warren Buffett famously gave LeBron James financial advice last year: <http://www.cnbc.com/2015/03/02/warren-buffetts-advice-to-lebron-james.html>).
  - c. Law (Justice O’Connor; President Ford was also a lawyer).
  - d. Government and nonprofit work (Presidents Ford, Reagan, and George H.W. Bush, Arnold Schwarzenegger, as governor of California, Chair Yellen)
  - e. Academics and research (economics teachers, professors; Chair Yellen was previously an economics professor and is currently professor emeritus at the University of California at Berkeley)
3. Show the AEA video *A Career in Economics..... It’s Much More Than You Think*, [https://www.aeaweb.org/video/career\\_in\\_economics.php](https://www.aeaweb.org/video/career_in_economics.php).
  4. Ask students if there was anything they found surprising about the video. (*Answers will vary, but may include I didn’t know economics was about people or solving policy problems, I didn’t think a doctor could use economics.*) Ask students why diversity in the economics field is important. (*Answers will vary, but may include people with different perspectives can find different solutions to economic problems, the health of the economy affects everyone, economic decisions have an impact on people’s daily lives, the field is made stronger and better decisions are made when people with different backgrounds contribute to policy discussions.*)
  5. Assign students to read the article “Building Diversity in the Field of Economics.”

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6. Distribute Handout 1. Have students answer the questions either as a written assignment, in groups, or as a class. (You may also use the handout to guide class discussion, rather than as an individual assignment.)
7. Have students investigate careers in economics using *Activity Sheet 1*, and turn in as an assignment or for discussion as a class.
8. Tell students that there are many occupations similar to being an economist. Give each student a slip from the *Activity 2* page. (If you have a large class, more than one student may have the same slip, or students may pair up.) You may also mount the slips on cardstock or construction paper, writing the name of the career on the front and taping the slips on the back.
9. Have students line up at the front of the class, facing the desks and the seated students who may not have a career slip. In turn, have each student read their name and occupation on the slip of paper. For example, “Hello, my name is Rosa and I’m an economist,” or “Hello, my name is Steven and I’m a political scientist.”
10. As each student introduces him- or herself and the job title, have the rest of the students respond in unison, asking: “What does a(n) (economist, political scientist, actuary, etc.) do?” Then have each student read his or her job description until all those holding career slips have participated.
11. After all the students have read their job descriptions, have them sort themselves in groups according to the type of education needed for each job (bachelor’s, master’s, or PhD degree).
12. Have the students re-identify themselves, going group by group, so everyone knows what job belongs in each category. Discuss the requirements and time needed to earn each type of degree. Be sure to note

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that all of these jobs require at least a college education (bachelor's degree).

*Bachelor's: actuary, budget analyst, financial analyst, market research analyst, operations research analyst*

*Master's: economist, mathematician, political scientist, survey researcher, postsecondary teacher*

*PhD: Postsecondary teacher*

13. Next, have students line up according to their median salary. Ask them the following questions:
  - a. What education level do the highest-paying jobs require? Where does an economist rank? (*Out of the top five, three require a master's degree; economist ranks fourth.*)
  - b. What is the highest-paying job on the list that requires a bachelor's degree? (*Actuary*)
  - c. Why do postsecondary teachers have two levels of education listed? (*Some institutions require only a master's degree to teach at the postsecondary level, but in order to get tenure, most universities and colleges require faculty to have earned a PhD.*)
  
14. (Optional) In the "More Info section" on the U.S. Bureau of Labor Statistics Occupational Outlook Handbook page for economists, <http://www.bls.gov/ooh/life-physical-and-social-science/economists.htm>, have students find information about five universities hiring economists and five private companies or government agencies with jobs for economists, and ask students to list them on the board. (This information can be found on the link to the American Economic Association website (<https://www.aeaweb.org/>) where there is a link to Job Openings (JOE), or on the link USAJOBS for government jobs (<https://www.usajobs.gov/>)). (*Answers will vary; see examples below.*)

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<b>University Jobs</b>	<b>Government or Private Sector Jobs</b>
<i>Auburn University</i>	<i>Consumer Financial Protection Bureau</i>
<i>Boston University</i>	<i>Bureau of Economic Analysis</i>
<i>Cornell University</i>	<i>Department of Energy</i>
<i>Princeton University</i>	<i>Internal Revenue Service</i>
<i>University of Georgia</i>	<i>Department of Homeland Security</i>
<i>University of Maryland</i>	<i>Congressional Budget Office</i>
<i>University of Virginia</i>	<i>JP Morgan Chase Institute</i>
<i>West Virginia University</i>	<i>Moody's Analytics</i>

*Note: Federal Reserve jobs for economists will be found on the websites of each of the 12 Federal Reserve banks.*

- Assessment:** Pass out Handout 2, and have students write an essay with the following prompt:

**Of the jobs listed, do any of them appeal to you? Why or why not?  
Choose one of the jobs listed on the student jobs fact sheet (or one that interests you) and answer the following:**

**What skills are needed to be successful in this job?**

**How would the study of economics help prepare you for this job?**

*(Answers will vary to the first question, as students have different interests. Answers to the next two questions may include: Skills needed are mathematical and analytical skills, critical thinking skills, communication skills, writing skills, and an ability to understand and interpret economic data. The study of economics helps students prepare for these careers by helping them to understand how the economy works. The study of economics builds analytical and critical thinking skills and math skills.)*

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### Handout 1: Discussion Questions for

#### “Building Diversity in the Field of Economics”

1. Are African-Americans underrepresented in the economics field? How many African-Americans earned a PhD in economics in 2013?
2. What phrase did one author use when discussing African-American economists, since they are small in number? What do you think the author was trying to say by using this phrase?
3. What significant honor was awarded to an African-American economist in 2015 and to whom? What type of award is this?
4. Has an African-American won the Nobel Prize in economics? If so, why was the win especially significant?
5. What interesting note does Roland G. Fryer Jr. have on his Harvard biography? Why do you think he included this note?
6. How does Fryer feel about being one of the few African-Americans in the economics field?

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### Handout 1: Answer Key

1. Are African-Americans underrepresented in the economics field? How many African-Americans earned a PhD in economics in 2013? *Yes, African-Americans earn just over 3 percent of the PhDs in economics, while they earn over 6 percent of all PhDs. Fifteen African-Americans earned a doctorate in economics in 2013. (There were 468 doctorates in economics awarded to U.S. citizens and permanent residents in 2013; the total number awarded was 1,079.)*
2. What phrase did one author use when discussing African-American economists, since they are small in number? What do you think the author was trying to say by using this phrase? *African-American economists were called “an elite clan of warrior intellectuals.” Answers will vary but may include that the author believes they are smart, small in number, and are fighters (warriors).*
3. What significant honor was awarded to an African-American economist in 2015 and to whom? What type of award is this? *The John Bates Clark Medal went to Roland G. Fryer Jr. in 2015. It is an award given to the American economist under 40 who is judged to have made the most significant contribution to economic thought and knowledge.*
4. Has an African-American won the Nobel Prize in economics? If so, why was the win especially significant? *Yes, Sir Arthur Lewis won the Nobel Prize in economics in 1979. His win was the first medal given to an African-American in a category other than peace.*

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### Handout 1: Answer Key

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5. What interesting note does Roland G. Fryer Jr. have on his Harvard biography? Why do you think he included this note? *He notes that before coming to Harvard, he worked at McDonald's (drive-thru, not corporate). (See <http://scholar.harvard.edu/fryer/biocv>.) Answers will vary, but may include that Fryer wanted to highlight his humble beginnings, show where he came from, or show that you can start from the bottom and make it to the top.*
6. How does Fryer feel about being one of the few African-Americans in the economics field? *He thinks that it "stinks," but he'd like to be judged on a standard other than his skin color.*

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### Activity 1: Exploring Careers in Economics

**Instructions:** Open the Bureau of Labor Statistic’s Occupational Outlook Handbook to the page on economists: <http://www.bls.gov/ooh/life-physical-and-social-science/economists.htm>.

Answer the following questions:

1. What was the median pay for economists in 2014? What does “median wage” mean? (*Click on the ? symbol to find out*)
2. What type of education is typically needed to work as an economist?
3. How many economist jobs were there in 2014? Are these jobs growing?
4. What are some of the things economists do?
5. How many different types of economists are listed in the “What Economists Do” section? Pick one type that seems most interesting to you and describe what that economist does.
6. According to the “Work Environment” section, in what type of business environment do most economists work? What sector of the economy do more than one in five economists work in?
7. According to the “How to Become an Economist” section, what skills are needed in addition to a degree?
8. How does the pay of economists compare to the total for all occupations? How does it compare to the pay for occupations in the social sciences?
9. Go to the website <http://www.bls.gov/oes/current/oes193011.htm#st> to answer the following questions: How many economists are in your state? What is the average wage for an economist in your state?

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### Activity 1: Exploring Careers in Economics Answer Key

Page 1

**Instructions:** Open the Bureau of Labor Statistic’s Occupational Outlook Handbook to the page on economists: <http://www.bls.gov/ooh/life-physical-and-social-science/economists.htm>.

Answer the following questions:

1. What was the median pay for economists in 2014? What does “median wage” mean? *Median pay was \$95,710 per year or \$46.02 per hour. Median wage means the wage at which half of the workers in the occupation earned more than that amount and half earned less.*
2. What type of education is typically needed to work as an economist?  
*Master’s degree*
3. How many economist jobs were there in 2014? Are these jobs growing?  
*There were 21,500 economist jobs and they are growing at 6 percent, about average.*
4. What are some of the things economists do? *Economists study the production and distribution of resources, goods, and services by collecting and analyzing data, researching trends, and evaluating economic issues.*
5. How many different types of economists are listed in the “What Economists Do” section? Pick one type that seems most interesting to you and describe what that economist does. *The BLS website site lists 10 different types of economists. Answers will vary, but students can pick from the following choices:*

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## Activity 1: Exploring Careers in Economics Answer Key

## Page 2

**Behavioral economists** study the effects of psychological and social factors on the economic decision making of an individual. They research how these factors lead to and affect the outcome of an economic decision.

**Econometricians** develop models and use mathematical analyses to test economic relationships. They use techniques such as calculus, game theory, and regression analysis to explain economic facts or trends in all areas of economics.

**Financial economists** analyze savings, investments, and risk. They also study financial markets and financial institutions.

**Industrial organization economists** study how companies within an industry are organized and how they compete. They also examine how antitrust laws, which regulate attempts by companies to restrict competition, affect markets.

**International economists** study international trade and the impact of tariffs and trade restrictions. They also examine global financial markets and exchange rates.

**Labor economists** study the supply of workers and the demand for labor by employers. They research employment levels and how wages are set. They also analyze the effects of labor-related policies, such as minimum wage laws, and institutions, such as unions.

**Macroeconomists** and **monetary economists** examine the economy as a whole. They may research trends related to unemployment, inflation, and economic growth. They also study fiscal and monetary policies, which examine the effects of money supply and interest rates on the economy.

**Microeconomists** analyze supply and demand decisions of individuals and firms. For example, they may determine the quantity of products consumers will demand at a particular price.

**Public finance economists** analyze the role of government in the economy. Specifically, they may analyze the effects of tax cuts, budget deficits, and welfare policies.

Source: BLS Occupational Outlook Handbook, Economists



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### Activity 1: Exploring Careers in Economics Answer Key

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6. According to the “Work Environment” section, in what type of business environment do most economists work? What sector of the economy do one in five economists work in? *Most economists work in an office. More than one in five economists work in the federal government.*
7. According to the “How to Become an Economist” section, what skills are needed in addition to a degree? *Analytical skills, communication skills, critical thinking skills, being detail oriented, math skills and writing skills.*
8. How does the pay of economists compare to the total for all occupations? How does it compare to occupations in the social sciences? *The median annual wage for economists is \$60,000 more per year than the median annual wage total for all occupations and over \$20,000 more than the median annual wage for other social scientists.*
9. Go to the website <http://www.bls.gov/oes/current/oes193011.htm#st> to answer the following questions: How many economists are employed in your state? What is the annual mean wage for an economist in your state? *(Answers will vary; numbers are estimates and given in a range.)*

## Activity 2: Economists and Related Jobs

Page 1

1. Cut out these slips of paper for Activity 2. If you have more than 11 students, have them work in pairs, or make two or more copies and allow more than one student to represent each job. You may also mount the slips on cardstock or construction paper, writing the name of the career on the front and taping the slips on the back.

### **Job: Economist**

2014 median pay: \$95,710 per year

Typical entry-level education: master's degree

What do economists do? *Economists study the production and distribution of resources, goods, and services by collecting and analyzing data, researching trends, and evaluating economic issues.*

### **Job: Actuary**

2014 median pay: \$96,700 per year

Typical entry-level education: bachelor's degree

What do actuaries do? *Actuaries analyze the financial costs of risk and uncertainty. They use mathematics, statistics, and financial theory to assess the risk that an event will occur, and they help businesses and clients develop policies that minimize the cost of that risk. Actuaries' work is essential to the insurance industry.*

### **Job: Budget Analyst**

2014 median pay: \$71,220 per year

Typical entry-level education: bachelor's degree

What do budget analysts do? *Budget analysts help public and private institutions organize their finances. They prepare budget reports and monitor institutional spending.*

### **Job: Financial Analyst**

2014 median pay: \$78,620 per year

Typical entry-level education: bachelor's degree

What do financial analysts do? *Financial analysts provide guidance to businesses and individuals making investment decisions. They assess the performance of stocks, bonds, and other types of investments.*

**Job: Market Research Analyst**

2014 median pay: \$61,290 per year

Typical entry-level education: bachelor's degree

What do market research analysts do? *Market research analysts study market conditions to examine potential sales of a product or service. They help companies understand what products people want, who will buy them, and at what price.*

**Job: Mathematician**

2014 median pay: \$103,720 per year

Typical entry-level education: master's degree

What do mathematicians do? *Mathematicians conduct research to develop and understand mathematical principles. They also analyze data and apply mathematical techniques to help solve real-world problems.*

**Job: Operations Research Analyst**

2014 median pay: \$76,660 per year

Typical entry-level education: bachelor's degree

What do operations research analysts do? *Operations research analysts use advanced mathematical and analytical methods to help organizations investigate complex issues, identify and solve problems, and make better decisions.*

**Job: Political Scientist**

2014 median pay: \$104,920 per year

Typical entry-level education: master's degree

What do political scientists do? *Political scientists study the origin, development, and operation of political systems. They research political ideas and analyze governments, policies, political trends, and related issues.*

**Job: Postsecondary Teacher**

2014 median pay: \$70,790 per year

Typical entry-level education: master's degree or doctoral degree (PhD)

What do postsecondary teachers do? *Postsecondary teachers instruct students in a wide variety of academic and career and technical subjects beyond the high school level. They also conduct research and publish scholarly papers and books.*

## Activity 2: Economists and Related Jobs

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### **Job: Statistician**

2014 median pay: \$79,990 per year

Typical entry-level education: master's degree

What do statisticians do? *Statisticians use statistical methods to collect and analyze data and help solve real-world problems in business, engineering, health care, or other fields.*

### **Job: Survey Researcher**

2014 median pay: \$49,760 per year

Typical entry-level education: master's degree

What do survey researchers do? *Survey researchers design and conduct surveys and analyze data. Surveys are used to collect factual data, such as employment and salary information, or to ask questions in order to understand people's opinions, preferences, beliefs, or desires.*

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## Handout 2: Economists and Related Careers Fact Sheet

**Job: Economist**

2014 median pay: \$95,710 per year; typical entry-level education: master's degree

*Economists study the production and distribution of resources, goods, and services by collecting and analyzing data, researching trends, and evaluating economic issues.*

**Job: Actuary**

2014 median pay: \$96,700 per year; typical entry-level education: bachelor's degree

*Actuaries analyze the financial costs of risk and uncertainty. They use mathematics, statistics, and financial theory to assess the risk that an event will occur, and they help businesses and clients develop policies that minimize the cost of that risk. Actuaries' work is essential to the insurance industry.*

**Job: Budget Analyst**

2014 median pay: \$71,220 per year; typical entry-level education: bachelor's degree

*Budget analysts help public and private institutions organize their finances. They prepare budget reports and monitor institutional spending.*

**Job: Financial Analyst**

2014 median pay: \$78,620 per year; typical entry-level education: bachelor's degree

*Financial analysts provide guidance to businesses and individuals making investment decisions. They assess the performance of stocks, bonds, and other types of investments.*

**Job: Market Research Analyst**

2014 median pay: \$61,290 per year; typical entry-level education: bachelor's degree

*Market research analysts study market conditions to examine potential sales of a product or service. They help companies understand what products people want, who will buy them, and at what price.*

**Job: Mathematician**

2014 median pay: \$103,720 per year; typical entry-level education: master's degree

*Mathematicians conduct research to develop and understand mathematical principles. They also analyze data and apply mathematical techniques to help solve real-world problems.*

**Job: Operations Research Analyst**

2014 median pay: \$76,660 per year; typical entry-level education: bachelor's degree

*Operations research analysts use advanced mathematical and analytical methods to help organizations investigate complex issues, identify and solve problems, and make better decisions.*

**Job: Political Scientist**

2014 median pay: \$104,920 per year; typical entry-level education: master's degree

*Political scientists study the origin, development, and operation of political systems. They research political ideas and analyze governments, policies, political trends, and related issues.*

**Job: Postsecondary Teacher**

2014 median pay: \$70,790 per year; typical entry-level education: master's or doctoral degree (PhD)

*Postsecondary teachers instruct students in a wide variety of academic and career and technical subjects beyond the high school level. They also conduct research and publish scholarly papers and books.*

**Job: Statistician**

2014 median pay: \$79,990 per year; typical entry-level education: master's degree

*Statisticians use statistical methods to collect and analyze data and help solve real-world problems in business, engineering, health care, or other fields.*

**Job: Survey Researcher**

2014 median pay: \$49,760 per year; typical entry-level education: master's degree

*Survey researchers design and conduct surveys and analyze data. Surveys are used to collect factual data, such as employment and salary information, or to ask questions in order to understand people's opinions, preferences, beliefs, or desires.*

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## National Standards for Financial Literacy

### Standard: Earning Income

Students will understand that:

Income for most people is determined by the market value of their labor, paid as wages and salaries. People can increase their income and job opportunities by choosing to acquire more education, work experience, and job skills. The decision to undertake an activity that increases income or job opportunities is affected by the expected benefits and costs of such an activity. Income also is obtained from other sources such as interest, rents, capital gains, dividends, and profits.

### Grade 8 Benchmarks

1. Careers are based on working at jobs in the same occupation or profession for many years. Different careers require different education and training.
2. People make many decisions over a lifetime about their education, jobs, and careers that affect their incomes and job opportunities.
3. Getting more education and learning new job skills can increase a person's human capital and productivity.
4. People with less education and fewer job skills tend to earn lower incomes than people with more education and greater job skills.
5. Investment in education and training generally has a positive rate of return in terms of the income that people earn over a lifetime.
6. Education, training, and development of job skills have opportunity costs in the form of time, effort, and money.

### Grade 12 Benchmarks

1. People choose jobs or careers for which they are qualified based on the income they expect to earn and the benefits, such as health insurance coverage or a retirement plan, that they expect to receive.
2. People choose jobs or careers for which they are qualified based on non-income factors, such as job satisfaction, independence, risk, family, or location.
3. People vary in their willingness to obtain more education or training because these decisions involve incurring immediate costs to obtain possible future benefits. Discounting the future benefits of education and training may lead some people to pass up potentially high rates of return that more education and training may offer.
4. People can make more informed education, job, or career decisions by evaluating the benefits and costs of different choices.