

Lesson 4: Back to School

Part 1: Human Capital and Employment

Lesson Description

In this lesson, students look at the financial lessons that a teen and her family learned while they were displaced from their home and community following Hurricane Katrina. The lesson content examines human capital, employment opportunities, teen unemployment, and postsecondary education as a key to greater financial well-being.

The PowerPoint-based lesson is designed for personal finance and other related classes.

Time Required

One 50 – 55 minute class period for entire lesson.

Concepts

| | |
|-----------------------------|-------------------------|
| Careers, career goals | Opportunity Cost |
| Discouraged workers | Postsecondary education |
| Employment | Scarcity |
| Human Capital | Unemployment |
| Labor Force | Unemployment rate |
| Marginally Attached Workers | |

Objectives

The students will be able to:

- Assess their current and future human capital.
- Analyze graphs and charts related to education.
- Understand the relationship between human capital and income.

Materials

- **Presentation:** *Katrina's Classroom* Lesson 4, Part 1 — PowerPoint presentation
 - **Infographic:** *Developing Human Capital* (<https://www.frbatlanta.org/education/katrinaclassroom/lesson4/infographic.aspx>)
 - **Handouts 1, 2:** One copy per student
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National Curriculum Standards

COMMON CORE STANDARDS

| Grades 6–8 students | Grades 9–10 students | Grades 11–12 students |
|---|----------------------|-----------------------|
| College and Career Readiness Anchor Standards for Reading Integration of Knowledge and Ideas | | |
| 7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words. | | |
| College and Career Readiness Anchor Standards for Speaking and Listening Comprehension and Collaboration | | |
| 1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. | | |
| College and Career Readiness Anchor Standards for Speaking and Listening Presentation of Knowledge and Ideas | | |
| 4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience. | | |

JUMP\$TART NATIONAL PERSONAL FINANCE STANDARDS

| 8 th Grade Students Additional Expectations | 12 th Grade Students Additional Expectations |
|---|---|
| Income and Careers | |
| Standard 1: Explore career options. | |
| <ul style="list-style-type: none"> ▪ Give an example of how education and training can affect lifetime income. ▪ Identify online and printed sources of information about jobs, careers, and entrepreneurship. ▪ Compare personal skills and interests to various career options. ▪ Describe the educational or training requirements, income potential, and primary duties of at least two jobs of interest. ▪ Identify individuals who can provide a positive job reference. | <ul style="list-style-type: none"> ▪ Identify a career goal and develop a plan and timetable for achieving it, including educational or training requirements, costs, and possible debt. |

Lesson Procedures

Specific instructions for PowerPoint are highlighted with a dotted border.

SLIDE 1. TITLE SLIDE

This lesson will cover information related to human capital and employment.

SLIDE 2. LESSON OBJECTIVES

In this lesson, we define human capital; explore current and future human capital; explore the relationships between education and income and between education and unemployment.

SLIDE 3. HUMAN CAPITAL AND EDUCATION

Tell students that an important part of earning power relates to human capital — our knowledge, skills, and training. Emphasize that people invest in human capital by going to school, pursuing additional training, and developing skills.

SLIDE 4. HUMAN CAPITAL: INVEST IN YOURSELF

Human capital is the knowledge, talent, and skills that people possess measured by their economic value. Explain that every person's human capital is different. One person's human capital may be appropriate for a particular career while another person's may be better suited for another. There is a strong correlation between the level of a person's human capital and the amount of income earned. The good news is that we aren't limited to one level of human capital. We can learn new skills and gain knowledge — which means our human capital can change over our lifetimes as we acquire new knowledge and skills.

SLIDE 5. YOUR HUMAN CAPITAL

Tell students that as they prepare for their future careers, they should consider their human capital and ways to acquire, maintain, and improve it.

Tell students that they are going to think about their own human capital, both current and future.

ACTIVITY INSTRUCTIONS

Distribute copies of Handout 1 (Human Capital Assessment) or have students record their responses on a sheet of paper.

Explain to students that the table is an outline to use as they think about their current and future human capital. For the **Current human capital** column, students should respond based on the traits that they currently have. For the **Future human capital** column, students should consider their future education, training, and career goals and how attaining those goals can affect their human capital. Give students a few minutes to reflect and write their answers. When they're done with the table, tell them to respond to the reflection questions at the bottom.

After students complete the handout, ask for volunteers to share examples of their current and future human capital.

As a lesson extension, have students revisit the future human capital column following the completion of Lesson 4 Part 2 to see how their future human capital might change based on what they have learned.

PowerPoint instructions

Click **Enter** to reveal the discussion questions at the bottom of the slide.

ASK THE STUDENTS

How does your current human capital differ from your future human capital?

Possible responses: Currently, lower levels and less work experience; in the future, potential of higher levels depending on additional education and training, experience, and other factors.

Point out to students that the more human capital they possess, the more likely they will have higher paying careers.

What steps do you need to take to achieve your future human capital?

Possible responses: Continue to receive an education, make plans to go to college, acquire a certification in a specific area of interest, learn more about skills needed for desired careers.

SLIDE 6. HOW LONG WILL IT TAKE TO EARN \$1 MILLION?

Explain to your students that now that they have explored their future human capital, they can estimate how long it will take for them to become millionaires based on various levels of education. The median incomes represent a wide range of occupations. The actual length of time to earn \$1 million will vary according to the specific career path.

ACTIVITY INSTRUCTIONS

Distribute a copy of Handout 2 (How Long Will It Take to Earn \$1 Million?) or have students record their responses on a sheet of paper. Tell them to work with a partner to discuss and estimate the median annual salary for the various levels of education listed. They should also calculate how many years it will take to earn \$1 million based on the estimated salaries. Students should record their answers in the **Estimate** columns. You may need to remind students that they can calculate the number of years by dividing \$1 million by the estimated median annual salary. Once students have identified their estimates and calculated the number of years, they should plot (using a triangle for each data point) the estimated amount of time to earn \$1 million for each level of education. Give students a few minutes to work with their partners.

Ask the class to share their estimates of the various salaries by education level and record the salary predictions on the board.

ASK THE STUDENTS

Why did you guess as you did?

Possible responses: People who work in certain jobs generally earn more money; those with higher levels of human capital are often paid more.

PowerPoint instructions

Click the **Enter** key (or the advance button) to reveal first the correct answers for the 2015 median annual salary and then the number of years to earn \$1 million. Have students record the actual median annual salary and number of years to earn \$1 million in the “actual” columns for each level of education. Repeat the process until you’ve revealed the information for all eight levels of education.

The annualized number is based on 2015 median weekly salary data from the U.S. Bureau of Labor Statistics (BLS; bls.gov/emp/ep_chart_001.htm).

ASK THE STUDENTS

Were your predictions close?

Possible responses: Yes, no.

Do any of the salaries surprise you? Why?

Possible responses: Salaries were much lower/higher than expected; time to earn \$1 million is much shorter/longer than expected.

Tell the students they will now plot (using a square for each data point) the actual amount of time to earn \$1 million dollars for each level of education.

When students have completed their graphs, continue to the next slide.

Post the infographic while students complete their graphs. Note: do not post the infographic in advance of the activity; otherwise students can obtain the answers to Handout 1.

SLIDE 7. HOW LONG WILL IT TAKE TO EARN \$1 MILLION?

Explain to the students that the graph shows both a potential number, which may or may not be similar to their estimates, as well as the actual number of years it would take to earn \$1 million for each of the education levels and their related median salaries.

ASK THE STUDENTS

Do your graphs look similar to the one displayed on the screen? What is different?

Possible responses: The estimate is different, data points were (were not) correctly plotted for the actual number of years.

How would you interpret the graph? In other words, what does the graph tell you about the salaries?

Possible responses: Lower education levels take much longer to earn \$1 million; estimates were near/far from the actual number of years; using actual data is important in informing decisions.

What does this make you think about your future potential human capital?

Possible responses: I may want to rethink education goals in order to earn more money more quickly.

SLIDE 8. EARNINGS, UNEMPLOYMENT RATE, AND EDUCATION

Remind students about the strong correlation between the level of a person's human capital and the amount of income earned. Emphasize that both of these factors also have a close connection with the likelihood of being unemployed.

The chart shows this relationship.

ASK THE STUDENTS

What information is provided on the left side of the chart (the part with the red bars)?

Possible responses: This portion reflects the unemployment rate; those with higher levels of education have lower levels of unemployment.

Explain to students that the left side of the chart shows the average unemployment rate by level of education. Below the red bars is the average national unemployment rate. The table shows the unemployment rates for persons aged 25 and over, which is why the unemployment rates are lower than the overall national average. The headline unemployment rate includes people aged 16 and over. In addition, the education categories in the table indicate only the highest level of education attained and do not account for other factors affecting human capital such as apprenticeships and on-the-job training, which could also influence earnings and unemployment rates.

ASK THE STUDENTS

What information is provided on the right side of the chart (the part with the green bars)?

Possible responses: This portion reflects weekly earnings; those with higher levels of education generally had higher earnings.

Continue covering the chart components by explaining that on the right side of the chart is the weekly earnings by level of education. The earnings in the table are for full-time and salary workers (not part-time workers). Below the green bars is the average weekly earnings. Explain the difference between median and average.

The BLS, the organization that tracks unemployment data, updates this chart annually (bls.gov/emp/ep_chart_001.htm).

ASK THE STUDENTS

When you combine all the components of the chart, how would you interpret all the data?

Possible responses: Higher levels of education are likely to result in lower levels of unemployment and in higher earnings, there is an inverse relationship between wages and unemployment levels.

How might this data affect you based on the human capital table you completed?

Possible responses: Currently, students are likelier to be at the lower wage levels; there may be a benefit in setting a goal to pursue more education.

People with an advanced education typically make more money over their lifetimes. Education often leads to a career.

SLIDE 9. TEEN UNEMPLOYMENT RATES

Tell students that people who have not yet completed high school generally possess lower levels of human capital and are more likely to be unemployed. But what exactly does this mean for teens?

Explain that they are going to learn about the unemployment rate calculation and then they will analyze the unemployment situation of teens. Tell them that to better understand and interpret the unemployment numbers, they will explore how the unemployment rate is calculated. **Have a student read the unemployment rate calculation on the slide then have another student read the calculation for the labor force. Explain that the labor force includes people who are aged 16 and over.**

ASK THE STUDENTS

What is your definition of being employed?

Possible responses: Having a job, getting paid for work.

Explain that to be considered employed, a person (aged 16 and over) has worked full time, part time, or temporarily during the past week. People are also considered employed if they have a job but didn't work because of vacation, illness, medical leave, or other situations.

ASK THE STUDENTS

What is your definition of being unemployed?

Possible responses: Being out of work, wanting to work but not being able to get a job.

Individuals aged 16 and over are considered unemployed if they are not currently working but were actively looking for work during the last four weeks. Explain that people who are out of work and would like to have a job but did not look for work in the past four weeks are not counted in the unemployment numbers since they are not actively seeking work. These individuals are referred to as **marginally attached workers**.

People who are **out of the labor force** and not counted as employed or unemployed include full-time students, retirees, and unpaid homemakers. A full-time student who is over 16 and has a job or is actively looking for one is counted as part of the labor force.

Explain that the graph compares teen unemployment (for those aged 16–19) to overall unemployment (for those aged 16 and over). Remind the students that 16 is the legal age to be included as part of the labor force. The annual unemployment rate is shown in green and the teen unemployment rate is shown in blue.

ASK THE STUDENTS

How would you explain the graph?

Possible responses: Teens have higher rates of unemployment than the overall population; the overall unemployment rate is lower than the teen unemployment rate.

How would you explain the gap in the unemployment rates?

Possible responses: Companies are less willing to hire teenagers; teenagers are competing with other age groups who may be more likely to get the job teens have less education and work experience.

Explain that teenagers generally find themselves in entry-level or seasonal positions. Perhaps in part because these types of positions tend to be affected by technological advancements or taken by older workers, especially during difficult economic times, teens generally experience higher levels of unemployment.

ASK THE STUDENTS

What examples of positions that have been eliminated can you think of?

Possible responses: Movie store clerk position eliminated due to new technology of on-demand movies and self-service rental kiosks.

How can you be better positioned to lower your risk of unemployment?

Possible responses: Improve human capital.

Remind students of the previous slide showing that people with higher levels of education generally have lower unemployment. Encourage students to build their human capital by increasing their knowledge and learning new skills.

The BLS, the organization that tracks unemployment data, maintains the employment situation historical data (www.bls.gov/cps/cpsatabs.htm).

SLIDE 10. IN SUMMARY

PowerPoint instructions

Click the **Enter** key (or the advance button) to reveal each summary point.

In this lesson, we learned that:

- Human capital is the knowledge, talent, and skills that people possess.
- Education can increase human capital and earning potential as well as decrease unemployment risk.

Handout 1: Human Capital Assessment

Directions

This table provides an outline for you to reflect on your current and future human capital. For the “Your Current Human Capital” column, respond based on the traits that you currently possess. For the “Your Future Human Capital” column, consider how your education, training, and career goals, can affect your future human capital. When you have completed the table, respond to the reflection questions below it.

| | YOUR CURRENT HUMAN CAPITAL | YOUR FUTURE HUMAN CAPITAL |
|--|----------------------------|---------------------------|
| Areas or subjects you have a lot of knowledge or information about | | |
| Education | | |
| Additional training | | |
| Employment history | | |
| Other skills | | |

Reflection Questions:

How does your current human capital differ from your future human capital?

What steps do you need to take to achieve your future human capital?

Handout 2: How Long Will It Take to Earn \$1 Million?

Directions

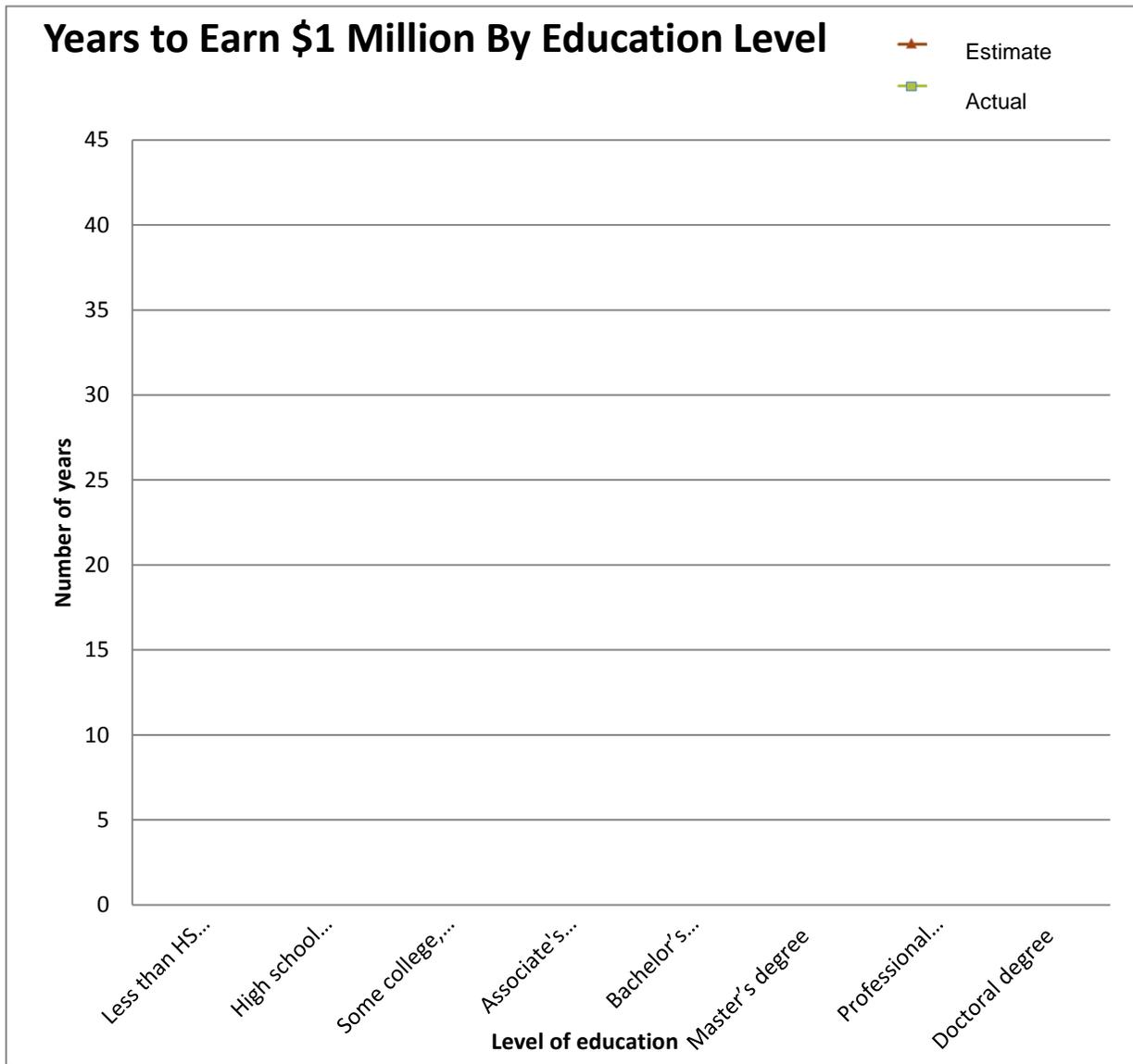
1. Work with a partner to discuss and estimate the median annual salary for the various levels of education listed in the chart. Also calculate the number of years it will take to earn \$1 million based on the estimated salaries. Record your answers in the **Estimate** columns.

$$\text{Number of years to earn \$1 million} = \$1 \text{ million} / \text{Estimated median annual salary}$$

2. Once you have identified your estimates and calculated the number of years, plot (using a triangle for each data point) on the graph the estimated amount of time it would take to earn \$1 million for each level of education.
3. When you learn the actual median annual salary and number of years to earn \$1 million, record your answers in the **Actual** columns.
4. Plot (using a square for each data point) the actual amount of time it would take to earn \$1 million for each level of education.

| Level of education | How much would you earn each year? (2012 median annual salary) | | How many years would it take to earn \$1 million? | |
|-------------------------------|---|--------|---|--------|
| | Estimate | Actual | Estimate | Actual |
| Less than high school diploma | | | | |
| High school diploma | | | | |
| Some college, no degree | | | | |
| Associate's degree | | | | |
| Bachelor's degree | | | | |
| Master's degree | | | | |
| Professional degree | | | | |
| Doctoral degree | | | | |

Handout 2 (Continued)



Katrina's Classroom was developed by a team of senior economic and financial education specialists at the Federal Reserve Bank of Atlanta.

Claire Loup, New Orleans Branch • Julie Kornegay, Birmingham Branch • Jackie Morgan, Nashville Branch

For additional classroom resources and professional development opportunities, please visit www.frbatlanta.org/education