



How Do We Measure Unemployment?

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Standards and Benchmarks (see page 7)

Lesson Description

In this lesson, students participate in an activity designed to help them understand who is in the labor force, and who isn't in the labor force. Using the classroom data they collect, students calculate an unemployment rate for the classroom. They look at actual unemployment rate data for the U.S. and discuss the costs of unemployment for individuals and families and for the economy. To obtain answer keys for the handouts and assessment in this lesson, Amy Hennessy at amy.hennessy@atl.frb.org.

Concepts

Labor force
Unemployment
Unemployment rate

Objectives

Students will be able to

- define labor force, unemployment, and unemployment rate;
- explain why people are counted or not counted as part of the labor force;
- calculate the unemployment rate; and
- explain the costs of unemployment for an economy.

Compelling Question

How do we determine the unemployment rate?

Time Required

30-45 minutes

Materials

- *“How Do We Measure Unemployment?”*, PowerPoint slide deck, Slides 1-13
- *Handouts 1 and 2*, one copy of each for each student
- *Handout 2 Answer Key*, one copy for the teacher
- *Two small slips of paper or sticky notes of one color—color A*
- *Three small slips of paper or sticky notes of another color—color B*
- *20 small slips of paper or slips of paper of a third color—color C*
- *18 small candy bars or small tokens*
- *Small container in which to place the slips of paper*
- *Music for procedure step 6*



- *Optional: candy bars or small tokens for all students to be distributed after the activity is complete.*
- *Optional: Procedure steps 8-10*

NOTE: This activity was designed for a class of 25. For smaller classes, reduce the number of Color C slips of paper. For larger classes, increase the number of Color C slips of paper and increase the number of candy bars or small tokens.

Preparation

Before the start of class, rearrange your room so that you have desks in a circle or oval. There should be two fewer desks than Color C slips of paper. Place a candy bar or token on each of these desks. The desks represent jobs and the tokens/candy bar represent income.

Arrange a different group of five desks in the front of the classroom for the students who are younger than 16 years old and who are not looking for work, represented by the Color A and Color B slips of paper.

Prior to the lesson, open the PowerPoint deck. On slides 2-4, fill in the blank on each slide with the appropriate color.

Procedure

1. As students enter the classroom, have each of them draw a slip of paper from the container. Tell the students not to take their seats but to stand along the walls of the classroom instead.
2. Tell the students that on the way to school there was a news report about unemployment. Ask them what unemployment is. (*Answers will vary. Some students may say that unemployment is people not working.*)
3. Display Slide 2 and ask the students with Color A slips of paper to raise their hands. Explain that these students represent those in the community who are younger than 16 years old, and because of that, they are not eligible to work. Ask these students to stand in one corner of the room.
4. Display Slide 3 and ask the students with Color B slips of paper to raise their hands. Explain that these students represent those who are not looking for work because they are retired, staying home with children, or have chosen not to work. Ask these students to stand in another corner of the room.
5. Display Slide 4 and ask the students who are still standing what color slip of paper they have. (*Color C*) Explain that they represent people who are 16 years old or older and who are looking for work.
6. Play music; when the music stops have the students with the Color C slips of paper sit in the desks that are arranged in a circle with candy bars or tokens on them. After a few seconds it will become clear that there are two students (in a class of 25) who do not have seats. Explain that these two students represent unemployment in the classroom.
7. Explain that the desks in the circle represent jobs and that the candy bars or tokens represent income. Point out that there are two students standing. Explain that these students were unable to obtain jobs and as a result won't earn income.

Optional Steps 8-10

8. Have the class experience a recession by keeping the same number of people in the labor force while removing a couple more desks. Then play the music again.



9. Explain to the students who must compete for the fewer available desks that this is like workers who are looking for fewer available jobs during a recession.
10. Tell the students who did not even try to find a desk because they would be unable to get to a desk before the music stopped that they are like discouraged workers who stop looking for a job if they do not think there are any openings or available positions.
11. Tell all the students to take their seats. Distribute a copy of *Handout 1: Classroom Labor Force, Employment, and Unemployment* to each student.
12. Display Slide 5 and complete the chart as a class and discuss the following:
 - How many people were younger than 16 years old—those with Color A slips of paper? (*Two*) Record the number in the “Not in labor force” column of the chart across from “Number of people younger than 16.”
 - People younger than 16 are not counted as part of the labor force in the U.S.
 - How many people were not seeking work—those with Color B slips of paper? (*Three*) Record the number in the “Not in labor force” column of the chart across from “Number of people not seeking work.”
 - People who are not actively looking for work are not counted as part of the labor force.
 - How many people were 16 years or older and actively looking for work but didn’t find a job—those with Color C slips who weren’t able to find a seat at a desk with a candy bar or token? (*Two*) Record the number in the “In labor force” column of the chart across from “Number of unemployed people 16+ actively looking for work.”
 - How many people were 16 years or older and found jobs—those with Color C slips of paper who were able to find a seat at a desk with a candy bar or token? (*18*) Record the number in the “In labor force” column of the chart across from the “Number of people 16+ who are employed.”
13. Display Slide 6 and explain that in the U.S. the labor force is the number of people 16 years or older—not including those in the military or institutionalized—who are currently employed or actively seeking employment. Discuss the following:
 - What is the size of the classroom labor force? (*20*) How do we know this? (*There were 18 people who were 16 years or older and able to find jobs and 2 people who were 16 years or older who were looking but couldn’t find jobs.*)
14. Display Slide 7 and explain that to calculate the civilian unemployment rate, we divide the number of unemployed by the number in the labor force and multiple by 100. This equation is $(2/20) \times 100$, which gives us 10 percent.
15. Explain that 10 percent is high—much higher than the current U.S. unemployment rate—(use the link to get the current U.S. civilian unemployment rate); <https://fred.stlouisfed.org/graph/fredgraph.png?g=1pPI0>
16. Explain that in the U.S. economy, members of the labor force who have full- or part-time jobs are employed. Ask the students what percentage of the labor force in the classroom is employed. (*90 percent*)
17. Display Slide 8 and review who is in the labor force, who is not in the labor force, and define unemployment.



18. Display Slide 9 and ask students why they think unemployment is a problem for individuals and families. *(Answers will vary.)* Using Slide 9, explain that people without jobs aren't earning income and are unable to provide for themselves and their families. Point out that unemployment also creates challenges to people's mental and physical well-being.
19. Display Slide 10 and ask students how unemployment affects the economy. *(Answers will vary.)* Using Slide 10, explain that unemployment results in costs for the economy. The economy suffers the loss of production from these workers, which reduces gross domestic product. There are governmental costs. Unemployed people pay less income tax, and unemployment benefits are an expense for the government.

Closure

20. Display Slide 11 and reveal one question at a time to review the important concepts in the lesson by discussing the following:
 - What does it mean to be employed? *(To work, have a job)*
 - How do we determine who is part of the labor force? *(People who are currently employed and people who are 16 years or older and actively looking for work are part of the labor force.)*
 - How do we determine if someone is unemployed? *(They must be 16 years or older and actively looking for work.)*
 - What is the unemployment rate? *(The percentage of the labor force that is unemployed.)*
 - If you work part-time in the United States are you considered employed? *(Yes)*
 - How does unemployment affect individuals and families? *(Unemployed people are unable to earn income, which means they can't provide for their families. This affects both the physical and mental health of family members.)*
 - Why is unemployment a problem for the economy? *(The economy suffers the loss of production from these workers, which reduces gross domestic product. Unemployed people pay less income tax, and unemployment benefits are an expense for government.)*

Assessment

21. Distribute a copy of *Handout 2: Assessment* to each student. Allow time for students to work, then review answers using the *Handout 2: Assessment—Answer Key*.



Handout 1: Classroom Labor Force, Employment, and Unemployment

	Not in labor force	In labor force
Number of people younger than 16		
Number of people not seeking work		
Number of unemployed people 16+ actively looking for work		
Number of people 16+ who are employed		
Total labor force		

Calculating the Civilian Unemployment Rate

$$\frac{\text{Number of unemployed}}{\text{Labor force}} \times 100 = \text{Unemployment rate}$$



Standards and Benchmarks

Voluntary National Content Standards in Economics

Standard 19: Unemployment and Inflation

Unemployment imposes costs on individuals and the overall economy. Inflation, both expected and unexpected, also imposes costs on individuals and the overall economy. Unemployment increases during recessions and decreases during recoveries.

- **Benchmarks: Grade 8**

1. To be counted as unemployed, a person must be in the labor force. The labor force consists of people age 16 and over who are employed or actively seeking work. Thus, the labor force is the sum of total employment and total unemployment.
3. The unemployment rate is the percentage of the labor force that is willing and able to work, does not currently have a job and is actively looking for work.