Unemployment Survey

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LESSON DESCRIPTION

In a role-play activity, students conduct their own employment survey and use the data to calculate an unemployment rate. After calculating the unemployment rate, students discuss the shortcomings of using only the unemployment rate to gauge the health of the labor market. Real-time data will be presented and recent unemployment trends discussed.

INTRODUCTION

Labor statistics describe how well workers are doing. The unemployment rate is just one of many statistics economists use to assess the welfare of workers and the health of the economy. While the unemployment rate is one of the most commonly cited statistics, it has some drawbacks. For example, the unemployment rate underestimates the severity of an economic downturn if workers become discouraged and give up looking for work or are forced to take part-time work when they want more hours. In addition, workers who are out of work for a long time lose valuable human capital. Finally, the unemployment rate says nothing about the wage the workers are earning. In short, an accurate portrayal of the nation's labor market requires that we examine other statistics, too.

COMPELLING QUESTION

How does the unemployment rate fail as a measure of our labor force's health?

CONCEPTS

Labor force

Employed

Unemployed

Unemployment rate

Discouraged worker

Part-time worker

OBJECTIVES

Students will be able to:

- Decide whether a worker is employed, unemployed, or not in the labor force.
- Calculate the unemployment rate.
- Identify shortcomings of using the unemployment rate to describe a country's labor market situation.

CONTENT STANDARDS

Voluntary National Content Standards in Economics

- Standard 19: 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.

Common Core State Standards

- Mathematics, High School: Statistics and Probability, Making Inferences and Justifying Conclusions: Make inferences and justify conclusions from sample surveys, experiments, and observational studies
- CCSS.Math.Content.HSS-IC.B.3: Recognize the purposes of and differences among sample surveys, experiments, and observational studies; explain how randomization relates to each.

- CCSS.Math.Content.HSS-IC.B.4: Use data from a sample survey to estimate a population mean or proportion; develop a margin of error through the use of simulation models for random sampling.

TIME REQUIRED

60 minutes

MATERIALS

- Slides 18.1–18.4
- Activity 18.1, cut and glued or taped to index cards, one per student, distributed as according to instructions in procedure 3.
- Activity 18.2, one copy per student
- Activity 18.3, one copy per student
- Optional: Online worksheet for Activity 18.2 at http://hseconomics .councilforeconed.org

PROCEDURES

1. Ask: Do you know how the Bureau of Labor Statistics (BLS) gathers the data needed to calculate the unemployment rate?

   They are likely to mention unemployment insurance claims, another statistic that is reported but not used in the calculation of the unemployment rate.

   Tell students that the BLS gathers the data through a survey called the Current Population Survey (CPS).

2. Tell students they will learn about how the unemployment rate is calculated by conducting their own CPS.

3. Hand out one card from Activity 18.1 to each student. (Note: The cards must be carefully prepared.) The first 28 cards are in groups of four. To make the numbers work out, the cards must be handed out in groups of four. If the class is not an even multiple of four, add cards 29–31. For example, if the class has 18 students, cards 1–16 and cards 29 and 30 will be handed out. If there are 29 students, cards 1–28

and Card 29 will be handed out. If there are more than 31 students, cards can be repeated in their groups of four.

4. Give each student a Survey Reporting Form (Activity 18.2). (Note: As an alternative to the manual process, an online worksheet can be found at http:// hseconomics.councilforeconed.org.) Tell students to read the instructions and answer any questions about the survey.

5. Tell students to fill in the line for their own data and to survey five classmates. When they survey a student, other students may survey them at the same time. Tell students they will have 10 minutes to conduct surveys and calculate the unemployment rate.

6. Give students 10 minutes to complete their work. Students will probably ask if a card description represents someone who is unemployed or employed or neither. Tell them it is up to them to decide. Let students figure out how to calculate the unemployment rate.

7. After 10 minutes, debrief the activity, asking the following questions, and solicit examples from their cards:

   a. How did you decide if someone was employed?

      Answers will vary. Discuss how many hours in a week someone must work to be considered employed.

   b. How did you decide if someone was unemployed?

      Answers will vary. Discuss whether people who do not need or want to work are unemployed. Discuss how a surveyor can determine if a person wants to work.

   c. How did you calculate the unemployment rate?

Answers will vary. Discuss the idea of a percentage, focusing on the fact that the unemployment rate is the number of unemployed divided by some number, with the result expressed in percent.

d. What unemployment rate did you calculate? Write the estimates on the board as students report them.

Answers will vary. Some are likely to be zero, depending on whom the surveyor interviewed.

8. Tell students that the BLS does not include those who are young (under age 16) or institutionalized (in nursing homes or in prison) in their unemployment statistics.

9. Tell students that according to the BLS people are **employed** if:
   - They did any work for pay or profit during the survey week.
   - They did at least 15 hours of unpaid work in a family-owned enterprise operated by someone in their household.
   - They were temporarily absent from their regular jobs because of illness, vacation, bad weather, industrial dispute, or various personal reasons, whether or not they were paid for time off.

10. Tell students that according to the BLS, people are **unemployed** if:
    - They did not have a job at all during the survey reference week, made at least one specific active effort to find a job during the prior four weeks, and were available for work (unless temporarily ill).
    - They were not working and were waiting to be called back to a job from which they had been laid off (they need not be looking for work to be classified as unemployed).

Source of definitions for employed and unemployed: Bureau of Labor Statistics, http://www.bls.gov/cps/cps_htgm.htm

11. Ask students to look at their cards and see if they were correct in determining their employment status.

Unemployed: 4, 7, 10, 14, 18, 24, and 28. Employed: 2, 3, 5, 8, 9, 12, 13, 16, 17, 19, 21, 22, 25, and 26. Not in labor force: 1, 6, 11, 15, 20, 23, and 27. Young or institutionalized: 29, 30, and 31.

12. Tell students it is time to figure out the unemployment rate. Ask those who are unemployed to raise their hands. Record the number of unemployed on the board.

The number should correspond to the Card Summary Table. If not, determine the source of the confusion by quizzing the unemployed or reading the correct card numbers and asking those who were incorrect about their confusion.

13. Ask those who are employed to raise their hands. Record the number of employed on the board.

The number should correspond to the Card Summary Table. If not, determine the source of the confusion by quizzing the employed or reading the correct card numbers and asking those who were incorrect about their confusion.

14. Tell students you have all the information you need to calculate the unemployment rate. Tell them the **labor force** is the total number of people who are employed and unemployed. Ask students what the size of the labor force is.

The number should correspond to the Card Summary Table.

15. Tell students that the **unemployment rate** is the percentage of the labor force that is unemployed. Ask: What is the unemployment rate?

33 percent

Ask: Were your estimates close to 33 percent?

Answers will vary.

Tell students that the BLS surveys 60,000 households each month—so their estimates are considerably more accurate.

16. Ask those who are neither employed nor unemployed but not young or institutionalized, to raise their hands; again, record the number on the board.

    The number should correspond to the Card Summary Table. If not, determine the source of the confusion by quizzing the appropriate students or reading the correct card numbers and asking those who were incorrect about their confusion.

    Tell the young and institutionalized students that they are not included in any of the calculations.

17. Tell students that the unemployment rate is one of many statistics used to measure unemployment. The unemployment rate concerns us because of the difficulty unemployment causes in people's lives. Ask: Are there people represented by their cards whose situations are not measured by the unemployment rate?

Answers will vary.

18. Lead students in a discussion of who may be struggling but whose situation is not represented in the unemployment rate. Guide students toward the following two groups:

    Discouraged workers (represented by cards 6, 15, and 23): Workers who want to work, are available for work, and have looked for work in the past year but who have given up looking in the past four weeks because they believe no jobs are available or that there are no jobs for which they qualify. (Note: *Discouraged workers* is a subset of *marginally attached workers*, who want to work, are available for work, have looked for work in the past year but who have not looked in the past four weeks. The difference between *discouraged* and *marginally attached workers* is that *discouraged workers* have not looked for work due to economic reasons, while other *marginally attached workers* have not been looking due to "noneconomic reasons" such as

Card Summary Table

Cards Handed Out*	Employed	Unemployed	Labor Force	Not in Labor Force**	Unemployed Rate	Discouraged	Under-employed
1–4	2	1	3	1	33%	0	0
1–8	4	2	6	2	33%	1	1
1–12	6	3	9	3	33%	1	1
1–16	8	4	12	4	33%	2	2
1–20	10	5	15	5	33%	2	2
1–24	12	6	18	6	33%	3	3
1–28	14	7	21	7	33%	3	3

* These refer to numbers on the distributed cards. Cards 29–31 represent people who are young or institutionalized and are handed out if class size doesn't work out to groups of four.
** Exclusive of young or institutionalized.

health or transportation. For this lesson, only *discouraged workers* are addressed.)

Part-time workers (represented by cards 5, 16, and 22) who work 34 hours or less per week due to economic reasons: They want to work more, but can't find full-time work or their employers offer only part-time work.

19. Tell students that the BLS calculates another measure that includes unemployed workers, discouraged workers, and part-time workers who want to work more. This measure is called the U-6 measure and is considered one of the broader measures of problems in the labor force. This number is often considerably higher than the unemployment rate.

20. Show Slide 18.1, which shows the unemployment and U-6 rates since 1994. Tell students that recessions are shaded in the graph. Ask: What has been the trend with the two rates and what is different now?

The difference is that one rate has climbed markedly and is higher than it has been in the past.

21. Have students brainstorm about other things they might want to know about unemployment that will help them understand how severe an economic downturn is.

Accept a large number of answers, but encourage ideas related to the duration of unemployment and its impact on younger workers.

22. Tell students that they are going to examine some data related to the ideas they had. Show Slide 18.2. Ask: What is notable about the latest economic downturn?

The duration of unemployment is considerably longer than in previous downturns.

Ask: How do long periods of unemployment harm the earning potential of workers in the long run?

Many answers are acceptable, including the loss of savings and assets, but the loss of skills—human capital—is one of the major problems workers face.

23. Show Slide 18.3. Ask: What else is notable about the latest economic downturn?

The unemployment rate among 20–24-year-olds is higher than in other downturns and has stayed relatively high longer.

Ask: Why will this harm young workers in the long run?

Young workers lose the opportunity to gain valuable skills and work experience, which can hurt their earning potential as they continue in their careers.

24. Show Slide 18.4. Ask: What else is notable about the latest economic downturn?

The unemployment rate for men is considerably higher than for women.

Ask students to explain this.

Many reasons are possible, but some areas severely hit by the recession were construction and other male-dominated industries.

25. Tell students that economists worry about workers losing skills and experience during economic downturns. Ask: Based on the evidence you have seen, is this a valid concern?

Yes, the duration of unemployment is long; younger workers are not getting experience because they are unemployed.

CLOSURE

26. Review some of the terms and concepts in this lesson:

    a. The unemployment rate is calculated from data gathered from a survey.

    b. The unemployment rate is the percentage of the labor force that is unemployed.

    c. The unemployment rate may not reflect all the problems in the labor market. Two problems not measured by the unemployment rate are discouraged workers and part-time workers. If workers become discouraged, they leave the labor force and the unemployment rate drops. If workers move from full-time to part-time work involuntarily, it is not reflected in the unemployment rate.

    d. When unemployment durations are long, the loss of human capital by workers can result in long-run harm to the economy.

ASSESSMENT

Multiple Choice

Use this table to answer the first two questions. The numbers are for a country that keeps labor statistics in the same manner as the United States.

Category	Number in Millions
Population	100
Not in labor force	15
Employed	45
Unemployed	5

1. Based on the information in the table, the unemployment rate is

    a. 5 percent.

    b. 8 percent.

    c. 10 percent.

    d. 11.1 percent.

2. The size of the labor force in the country referred to in the table is

    a. 5 million.

    b. 45 million.

    c. 50 million.

    d. 65 million.

3. If a large number of unemployed workers become discouraged, then the unemployment rate will

    a. increase.

    b. decrease.

    c. not change because they leave the labor force.

    d. increase or decrease, depending on whether the workers were part time.

Constructed Response

1. The unemployment rate is an important measure of the severity of an economic downturn. Explain why the unemployment rate may not capture all aspects of the unemployment situation of workers.

   Answers may include discouraged workers, workers who are not working full time but want to, and the duration of unemployment.

2. Activity 18.3 provides a review of the concepts covered in this lesson.

   Employed: Bill, Neela, Paul, and Tom; unemployed: Alka and Mesmin; not in labor force: Sharmila and Pat; young or institutionalized: Nikhil and Harry. Questions: (1) 33 percent. (2) 20 percent, Alka has moved from unemployed to not in labor force. (3) 43 percent, Pat has moved from not in labor force to unemployed.