

Unemployment and Employment: Problems

Consider the following employment data for the economy of Frogland:

Category	Number
Total Population	150,000,000
Full Time Employed	90,000,000
Unemployed, Actively Searching	10,000,000
Unemployed, No Longer Searching	5,000,000
Serving in the Army	20,000,000
Prison Inmates	1,000,000
Part Time Workers, Including Students	15,000,000
Children	9,000,000

1. Calculate the labor force participation rate and standard (U-3) measure of unemployment for Frogland.
2. Calculate a broader measure of unemployment, similar to U-6, which attempts to include discouraged workers and the underemployed.
3. How confident are you in your estimate of unemployment from #2?
4. Discuss the implications on U-3 and welfare of the following changes to these data:
 - i. 5,000,000 unemployed Froglanders stop searching for work.
 - ii. 5,000,000 unemployed Froglanders become employed.
 - iii. The method of counting U-3 is changed so that members of the military are classified as employed.
 - iv. The method of counting U-3 is changed so that prison inmates are classified as employed.
5. True or False? Long-term unemployment has fully recovered from the Great Recession and covid-19 recession.
6. True or False? The natural rate of unemployment is the sum of cyclical and frictional unemployment.

7. If technology renders a job obsolete, does that cause frictional, structural, or cyclical unemployment?
8. If a more generous welfare state induces unemployed workers to be more selective when searching for work, does this cause frictional, structural, or cyclical unemployment?
9. If a new job search engine streamlines the process of finding a job, does this cause frictional, structural, or cyclical unemployment?
10. True or False. The rise in U-3 during the covid-19 recession fully captures the pandemic's adverse impact on the labor market.
11. Provide one example of a decline in labor force participation that concerned most policy makers and one that did not.
12. Why is unemployment typically considered a lagging rather than leading variable?