

Unemployment and Employment: Problems

Consider the following employment data for the economy of Darrin Walls Island:

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 of Darrin Walls Island	20,000,000
Prison Inmates	1,000,000
Full Time Students	20,000,000
Part Time Workers, Including Students	30,000,000
Children	9,000,000

1. The labor force participation rate is the labor force (employed plus unemployed) divided by the adult non-institutionalized (children and inmates do not count) population. Here:

$$\frac{90 + 10}{150 - 9 - 1} = 10/14 = 71.4\% \quad (1)$$

U-3 is the unemployed over the labor force:

$$U - 3 = \frac{10}{90 + 10} = 10\% \quad (2)$$

2. I worded this question poorly. I meant to solicit discussion about how U-3 excludes discouraged workers and the underemployed. Also, there is little ambiguity in the calculation, the data are precise

3. U-6 includes discouraged workers and the underemployed for economic reasons in both the count of the unemployed and the labor force. I assume that there are 5 million discouraged workers. The data do not break down part time workers into those who are underemployed for economic reasons. So I have to make an assumption. I will assume that 1/2 of them, 15 million, are underemployed for economic reasons.

$$U - 6 = \frac{30}{120} = 25\% \quad (3)$$

4. Not very. If all 30 million part time workers are students, or if all are underemployed for economic reasons, then my calculation will be way off. The data are not precise and as a result my calculation is imprecise as well.

5. Discuss the implications on U-3 and welfare of the following changes to these data:

i. U-3 falls to $5/95 = 5.3\%$. This is, however, likely a sign of a worse labor market although U-3 fails to detect this. Note that U-6 would be unchanged.

ii. U-3 falls to $5/100 = 5\%$. The labor market is getting better and the decline in U-3 reflects this.

iii. U-3 now equals $10/120 = 8.3\%$. This is just a change in measurement. No real economic changes have occurred.

iv. U-3 is now $10/101 = 9.9\%$. As with iii, this is just a change in how we measure U-3 and it reflects no real economic changes.

6. False. Employment has been stagnant over this time period.