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The (Maybe Not So) Simple Arithmetic of Unemployment and Labor Force Participation

I have precisely zero interest in jumping into any fray from the before and after of Wednesday's *Wall Street Journal* [opinion piece](#) by Jack Welch, wherein he defends his previous comments on the reliability of reported unemployment statistics. But there is one particular statement in that editorial that offers up what is sometimes called a teachable moment, to wit,

By definition, fewer people in the workforce leads to better unemployment numbers.

By definition, that's not really correct. Consider a really simple example. Suppose:

Population = 200

Number of Employed People = 92

Number of Unemployed People = 8

Labor Force (Employed + Unemployed) = 100

In this example the labor force participation rate is 0.50 (the labor force divided by the population) and the unemployment rate 0.08, or 8 percent (the number of unemployed divided by the labor force).

Now suppose that five people drop out of the labor force (which would mean that labor force participation would decline from 0.5 to 0.475). What happens to the unemployment rate? Well, it depends what those 5 people were doing before they left the labor force. If they were unemployed, then unemployment falls to 3, the labor force falls to 95, and the unemployment rate is about 3.2 percent (or 0.0316 times 100). But if the 5 people who dropped out the labor force had been previously employed, the unemployment rate would actually rise to about 8.4 percent (because the number of unemployed would still be 8, but it would now be divided by 95 instead of 100).

Hope that clears it up.

Note: You can take a look some actual data on flows into and out of employment, unemployment, and not in the labor force [here](#).

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