

## Comment on Nilsen and Holm Reiso: Scarring effects of early career unemployment

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The paper by Nilsen and Holm Reiso raises the question: has youth unemployment a negative long-term effect on future labor market possibilities *in itself*? That is: does youth unemployment cause negative labor market outcomes later in life for the affected population? With no doubt, this is a highly important question to ask, but from a causal point of view, it is also a question that is difficult to answer. I believe Nilsen and Holm Reiso do a good job, given the circumstances. Moreover, the paper is very easy to digest and is clearly written and methodological problems are discussed.

In this comment I will start with a methodological discussion. Secondly, I will propose some improvements that would strengthen their empirical design. Lastly, I will argue that even though the method used has some problems, it is from a policy perspective reasonable to accept the hypothesis put forward and move on to randomized controlled experiments in order to understand the driving mechanism causing scarring effects.

In order to create a control group Nilsen and Holm Reiso use the method of propensity score matching, a method that summarizes all observable variables into a single score and thus provides a solution to a dimensionality problem. This matching procedure attempts to mimic randomization by creating a sample of units that received the treatment (early unemployment) that is comparable on all observables to a sample of units that did not receive the treatment (not early unemployed). After creating the two groups, differences in future labor market outcomes are estimated. For example, Nilsen and Holm Reiso find that the probability of being unemployed one year after the treatment is about 30 percentage points higher for the treatment group. After 5 years the effect is smaller, around 5 percentage points, but still significant, indicating scarring effects.

Many other studies (cited in their paper) show evidence of scarring effects. Nilsen and Holm Reiso restrict the analysis to a country (Norway) with a very strong labor market with low unemployment both for young and older workers. Furthermore they analyze only young people with some previous labor market experience. If scarring effects appear under these economic circumstances, the argument goes, then these could be considered a lower bound. I believe the argument has merit, given the plentiful evidence of scarring effects in the literature.

Although the results hold up for standard tests, these tests are never better than the variables they defined as observable. That is, we might still suspect that treatment and control groups are unbalanced with respect to other variables not taken into account. Let me start by mentioning a few additional observables that could be of importance and that potentially could be obtained.

Recent research has shown that cognitive and non-cognitive skills measured early in life seem to affect future success in life (e.g. Herrnstein and Murray, 1994 and Lindqvist and Vestman, 2011). However, these observables are missing when constructing the control/treatment groups. In

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Sweden military draft data has been used to construct cognitive and non-cognitive skill measures affecting future return on investments (Lindqvist and Vestman, 2011). A drawback with using military draft data is that we constrain the analysis to men. On the other hand, the results in the paper show that men and women are not affected differently. In absence of military draft data, grade data from junior high or high school in for example math, or even better test score data, could be used in order to measure cognitive skills. I believe that Nilsen and Holm Reiso's measures used -- education type -- are insufficient measures of cognitive skills. Moreover, socioeconomic background variables, such as parents' income and education, should be feasible to collect and is necessary for a credible design.

Relating to Skans (2004) we would expect the estimate of the scarring effect to decrease, since the unknowns (the omitted variables) are likely to bias the estimates upwards. Moreover, further unobservable variables such as innate ability and family characteristics would still leave us somewhat skeptical. The major result in Skans (2004), where unobserved family characteristics are taken into account, is that effects beyond a five-year horizon is no longer statistically significant. Thus, I am more confident of the result, although potentially somewhat exaggerated, in the short run. However, I feel more uncertain of the really long-term effects presented. Now, let me now turn to a policy discussion.

Given the vast evidence of scarring effects in the literature, the results seem not unrealistic, although possibly somewhat inflated. Nilsen and Holm Reiso mention on page two that "there is evidence of true scarring effects in the existing literature; less is known about its cause. There are several theories explaining scarring; depreciation of human capital ..., psychological discouragement or habituation effects ..., theories of job matching where the unemployed accept poorer quality jobs ..., social work norms that influence individuals preferences for work ..., and employers using individual's unemployment as a signal of low productivity".

Depending on which of those mechanisms that is most important, we need to design different programs/treatments in order to reduce scarring effects efficiently. If human capital depreciation is the main driver, then active labor training would potentially be the best solution. However, if signaling is what matters, training does not help and it may even increase the scars. Being a part of the program might even be a stronger "bad signal". If the effects are driven by psychological discouragements then maybe cognitive behavioral therapy should be an integral part of active labor market policies.

I believe the main argument for the paper, as Nilsen and Holm Reiso argue, is that even in unlikely settings we can verify scarring effects. Therefore, I think the authors should argue strongly for randomized controlled trials in order to distinguish the mechanisms causing scarring effects. A more general discussion on this matter and ideas on how to implement randomized experiments are given a too little weight in the paper. The OECD countries already spend large sums on active labor market policies so the cost of setting up randomized experiments with different treatments should be well within reasonable budget limits.<sup>2</sup>

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<sup>2</sup> See Forslund et al. 2011 for exact figures.

## References

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