Social Science & Medicine 130 (2015) 115–124

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: www.elsevier.com/locate/socscimed

Unemployment in Scandinavia during an economic crisis: Cross-national differences in health selection

Kristian Heggebø

Oslo and Akershus University College, PB 4 St. Olavs Plass, N-0130 Oslo, Norway

ARTICLE INFO

Article history:
Available online 13 February 2015

Keywords:
Scandinavia
Health selection
Unemployment
Labor market demand
Employment protection
Fixed effects

ABSTRACT

Are people with ill health more prone to unemployment during the ongoing economic crisis? Is this health selection more visible among people with low education, women, or the young? The current paper investigates these questions in the Scandinavian context using the longitudinal part of the EU-SILC data material. Generalized least squares analysis indicates that people with ill health are laid off to a higher degree than their healthy counterparts in Denmark, but not in Norway and Sweden. Additionally, young individuals (<30 years) with ill health have a higher probability of unemployment in both Norway and Sweden, but not in Denmark. Neither women with ill health, nor individuals with low educational qualifications and ill health, are more likely to lose their jobs in Scandinavia. Individual level (and calendar year) fixed effects analysis confirms the existence of health selection out of employment in Denmark, whereas there is no suggestion of health selection in Sweden and Norway, except among young individuals. This finding could be related to the differing labor market demand the three Scandinavian countries have experienced during and preceding the study period (2007–2010). Another possible explanation for the cross-national differences is connected to the Danish "flexicurity" model, where the employment protection is rather weak. People with ill health, and hence more unstable labor market attachment, could be more vulnerable in such an arrangement.

1. Introduction

The first and most obvious effects of an economic crisis is observed through the raising of unemployment levels, and many workers' worst nightmare – to lose ones job – might therefore become reality. The unemployment experience is frequently coupled with financial hardships (Halvorsen, 1997), and the stress associated with being unemployed might even lead to health deterioration (Korpi, 2001; Montgomery et al., 1999). Since unemployment is correlated with a number of negative events, we need to ask ourselves an important question: to what extent are individuals with ill health overrepresented among the unemployed? The current paper will investigate health-based exit from employment, which is commonly referred to as *health selection*.

The presence of health selection on the labor market is already reasonably well established empirically (Virtanen et al., 2013; Butterworth et al., 2012; Arrow, 1996; Mastekaasa, 1996). Hence, focus should now be switched to *variances* in health selection over time and/or geographical space, in order to deepen our understanding of the phenomenon. The context of this study is set to the Scandinavian countries; Denmark, Norway and Sweden. These countries share many similarities, and are often classified within the social democratic "Welfare State Regime" (Esping-Andersen, 1990). However, there are some differences between these countries that are of crucial importance in labor market analysis. Firstly, the Scandinavian countries have experienced differing overall unemployment trends in the recent years. Secondly, the Danish "flexicurity" system implies that employees' employment protection is rather weak compared to the neighboring countries. These nuances could have vital consequences for the risk of unemployment for people with ill health.

The current paper asks two main research questions: (i) Do people who report ill health have a higher probability of experiencing unemployment during the economic crisis? (ii) Are there differences between the Scandinavian countries in the health selection-estimates? This study contributes to the existing literature on health selection in three ways: Firstly, by using the ongoing *economic crisis* as the research context. Health-based exit from employment could be operating differently during a recession,

E-mail address: kristian.heggebo@hioa.no.

http://dx.doi.org/10.1016/j.socscimed.2015.02.010
0277-9536/

when the unemployment experience is more widespread. Secondly, through a cross-national *comparative focus*. Thirdly, by the attempt to establish a *causal link* between ill health and unemployment, with longitudinal data and estimated individual level (and calendar year) fixed effects. The EU-SILC data material is utilized, and the observational time period is the years 2007–2010.

2. Theory and previous research

2.1. Health selection

It is sensible to differentiate between a broad and a narrow definition of health selection. The *broad definition* is health-based mobility, which includes both entries to and departures from the labor force. The *narrow definition* is health-based exit from employment. The narrow definition thus refers to the selection process involved in unemployment- "recruitment", and asks whether individuals with bad health profiles are selected into unemployment to a higher degree than their healthy counterparts. But why should people with ill health be more prone to lay-offs? In order to explain health selection, we need to introduce one or several mechanism(s) that is theoretically capable of generating it (Hedström and Swedberg, 1996).

Three possible explanatory mechanisms springs to mind. Firstly, economic theory predicts that employers wish to keep the employees that are most productive, and the employees' health status might be used as a *proxy for productivity*. The productivity of a worker is difficult to measure precisely in many occupations, and the employer could therefore turn to more easily observable "signals": the number of sick days, for instance. Secondly, health-based lay-off decisions is probably related to Last-In-First-Out *seniority rules* (Lindbeck, 1994; von Below and Thoursie, 2010). People with ill health will often have more "gaps" in their work careers, due to elevated levels of sickness absence, and might therefore be laid off first. Moreover, people with ill health are most likely not an employers' first choice in a recruitment process, which leads to less seniority. Thirdly, people with ill health might struggle to enter the labor market due to employers' *discriminatory preferences* (Becker, 1971; Arrow, 1973), which would imply less seniority and higher lay-off risk for unfit individuals. Discrimination of people with ill health could for instance happen if the employer thinks that illness is correlated with undesirable personality characteristics, such as weakness of will. It is important to stress that the present data material is not suited for the testing of these different explanatory mechanisms, since the lay-off decision is not observed directly.

Health selection out of employment is problematic for at least three reasons. Firstly, many of those who seem to be too sick to work at a time of low demand will find work when demand rises (van der Wel et al., 2010; Bartley and Owen, 1996; Minton et al., 2012). Secondly, there are *cumulative disadvantages* linked to unstable labor market attachment, both regarding future employment (Eliason and Storrie, 2006), income levels (Gangl, 2006) and health status (Korpi, 2001). Thirdly, because of potential *human capital wastage*. If sick people who want to work are denied the opportunity, we are not maximizing the use of our societal resources. It is therefore necessary to establish whether – and to what extent – health selection is a driving factor in the layoff-process.

There are multiple studies which establish a link between ill health and subsequent risk of unemployment. Analysis of 11 European countries indicates that healthier people are more likely to become – or remain – employed than less healthy people (Schuring et al., 2007). Mastekaasa (1996) finds that people with psychological problems in Norway are more likely to lose their jobs. Similarly, analysis of Swedish data showed that suboptimal health status and health behavior predicted both unemployment occurrence, and prolonged unemployment (Virtanen et al., 2013). Moreover, results from Australia indicate that poorer baseline mental health was associated with greater time spent unemployed (Butterworth et al., 2012). Findings from Germany show that health selection affect different types of workers in different ways (Arrow, 1996). For foreign and female workers illness is positively associated with the risk of unemployment, but there is no such link apparent for German male workers. This latter study indicate the importance of stratified analyses, since it might be the case that health selection is more prevalent among specific subgroups. It might also be the case that health selection operates differently during a recession, when the unemployment experience is more widespread. Hence, the first research question of the current study is:

Do people who report ill health have a higher probability of unemployment during the economic crisis in Scandinavia?

2.2. Cross national differences: employment protection and labor market demand

Previous research on health-based exit out of employment has most often been performed on data materials from a single country, and cross-national comparisons are severely lacking (see Schuring et al., 2007 for an exception). A comparative focus could deepen our understanding of the phenomenon, and the present study will therefore investigate health selection in Denmark, Norway and Sweden. Are there dissimilarities between these countries that could have an impact on unemployment risk for people with ill health? The most distinct difference in labor market characteristics is probably related to the Danish "flexicurity" model. Basically, the flexicurity model consists of three parts: (i) minimal job protection, (ii) generous unemployment benefits, and (iii) active labor market policies (Van Kersbergen and Hemerijck, 2012). This implies that it is rather easy to fire employees in the Danish context. The employment protection regulation remains quite strong in Sweden and Norway, illustrated by the OECD strictness of employment protection index which is 2.135, 2.333 and 2.607 for Denmark, Norway and Sweden respectively throughout 2007–2010 (OECD, 2013). The rather weak employment protection in Denmark could imply that health selection is more pronounced here, since employers have "incentives" in favor of firing employees with ill health (see above).

Fig. 1 below shows the overall unemployment rates in the three countries from the year 2004 and ten years forward. Up until 2008, Norway and Denmark had almost identical unemployment trends,

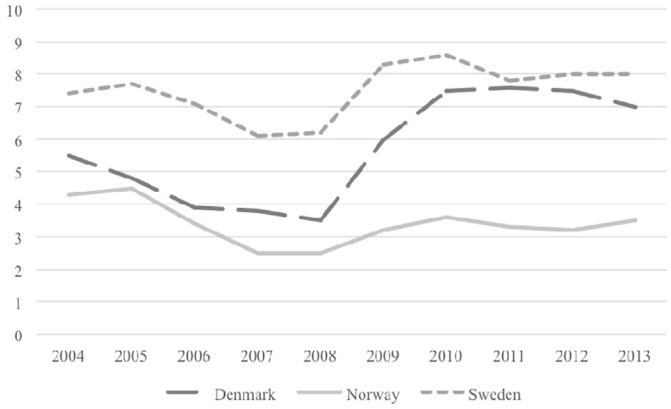

Fig. 1. Unemployment rates 2004–2013, by country.
Source: Eurostat.