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THE EFFECT OF SOCIAL TRANSFERS ON THE LEVEL OF UNEMPLOY- MENT OF DISABLED IN EU

Abstract. Employment brings disabled people not only the necessary income for reasonable life, but also serves as an important part of social inclusion. It is rarely stressed in the literature that in order to find a job it is necessary to possess certain level of welfare. The role of the state in providing that for disabled cannot be underestimated. This way, social transfers may decrease unemployment among disabled people. On the other hand, classical literature suggests, that social transfers demotivate people from looking for a job thus increasing unemployment. This paper studies the effects or reduction in poverty among disabled caused by social transfers on the level of unemployment of disabled in EU countries on macro level. We use data collected by Eurostat in the European Union Labor Force Survey in 2011. Our results suggest that the bigger is the effect of social transfers on the level of poverty, the higher is the unemployment of disabled with only a basic activity difficulty. The effect of reduction in poverty caused by social transfers on unemployment of disabled with limitation in work caused by a health condition and/or a basic activity difficulty is not statistically significant.

Keywords: unemployment, disabled, social transfers, poverty

JEL classification: E24, Z13, H71

Introduction

One out of every six EU citizens between 16 and 64 is reported to have a long-standing health problem or disability although one third of those persons do not experience any restriction in their working abilities (Greve, 2009). These people may suffer difficulties in looking for and maintaining job, resulting in substantial unemployment within this segment of population. The levels of unemployment among disabled in European Union range from 4,9% in Luxembourg to 28,2 in Spain depending on the country and the extent of disability (see table 1). Existing results suggest that the situation is worse for disabled people with low education, for women than for men, for people with intellectual impairments and mental health conditions (Holland, et al., 2011; Greve, 2009; Applica et al, 2007; Achterberg et al., 2009).

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Table 1. Lowest and highest scores on unemployment for people with different degrees of disability in EU, 2011, %

Type of disability	Lowest unemployment, %	Highest unemployment, %	EU average, %
Difficulty in basic activities	Luxembourg 4,9	Lithuania 23,6	12,1
No difficulty in basic activities	Austria, Switzerland 3,8	Spain 21,9	9,6
Limitation in work caused by a health condition or difficulty in a basic activity	Switzerland 6,0	Spain 28,2	17,4
No limitation in work caused by a health condition or difficulty in basic activities	Switzerland 3,7	Spain 21,6	9,4

Source: Eurostat.

Severe unemployment among disabled people most of the EU countries attempt to relieve by adopting numerous strategies (Strielkowski and Hněvkovský, 2013). Contrary to earlier strategies, that focused at providing special conditions for employment of disabled, designed to take into account what the disabled cannot do, the recent employment strategies adopted in EU countries focus mostly on what disabled can do (see Ren L. R., et al., 2008 for the description of the concept). The main idea is to integrate disabled to the workforce rather than provide them with sheltered employment and other less valued compensatory employment (Greve, 2009). The current strategies focus on supporting part time work and job flexibility (shorter working hours, flexible attendance, work breaks, etc.) in the boundaries of regular employment. To motivate employers to provide disabled with such work contracts, most of European countries maintain some form of employment quotas for disabled with or without sanctions.

While quotas may do their job if enforced, there are also some arguments against quotas. The first problem states that quotas are not always implemented fully (Gundersen, 2008; Greve, 2009). For example in Austria only 30% of companies obeyed the quota for disabled in 2002 (Zelderloo and Reynaert, 2007; Greve, 2009). In some countries, quota places may be traded. For example in the Czech Republic companies can reduce the minimal number of disabled necessary to employ if they buy products from other firms, which employ more than 50% of disabled. This practice provides the companies a legal opportunity not to comply with quotas. In addition, in order to fulfill the quota in the easiest and quickest way the firms may go for internal rather than external employment and target those disabled, who are the closest to the labor market leaving the others unattended. On the other hand, those disabled who get the employment, may pave the way to others, who are far from the labor market and motivate them look for a job as well (Greve, 2009).

While all these policies are important and admirable, this paper suggests that it is vital that disabled people have at least minimal resources to be able to efficiently look and find a job. Given current tendency to integrate disabled to overall labor market as opposed to sheltered employment, the importance of resources gets even higher. Given that many disabled have to rely on the state for the minimal standard of well-being, it seems reasonable to suggest, that the state is to provide the necessary funds in the form of social transfers for disabled.

In other words, we suggest that in order to find a job, disabled person needs to possess certain commodities and services. Efficient telephone line and internet enables disabled persons to stay in contact with the job market, improve their qualification, efficiently apply for a job and be able to respond the offers of prospective employers adequately and timely. Ability to use

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public or other types of transportation enables disabled persons to transport themselves to the workplace and increase their chances of employment. In addition decent outfit contributes to positive impression the prospective employer gets from the applicant. All these commodities and services cost money, and are substantial even before one gets the dreamed job (for similar reasoning see Barrientos, 2012).

The role of the government in providing the funding for disabled people necessary to acquire these goods and services cannot be overestimated. From table 2 follows, that in EU countries on average social transfers reduce the numbers of disabled people at the risk of poverty by almost 50% from 68,9% (before transfers) to 19,2% (after transfers) of disabled population. Figure 1 shows, that the effect of social transfers on reduction of percentage of disabled living in poverty varies highly in EU and ranging from 33% in Switzerland to 63% in Hungary.

Table 2. Disabled people at risk of poverty before and after social transfers in EU, 2011, %.
Type of disability: some and severe

Type of disability	Lowest %	Highest %	EU average, %
Disabled people at risk of poverty before social transfers	Switzerland 54,2	Lithuania 78,7	68,9
Disabled people at risk of poverty after social transfers	Iceland 8,2	Croatia 35,5	19,2

Source: Eurostat

The effect of social transfers on reduction of poverty in EU countries is depicted on Figure 1. The numbers were computed as disabled people at risk of poverty after transfers (%) minus disabled people at risk of poverty before transfers (%)

Though social transfers may provide disabled people with resources necessary for successful employment, classical economic models suggest that social transfers may demotivate people to look for a job or prolong the period of voluntary unemployment (Saez, 2006; Ardington et al., 2009; Skoufias and di Maro, 2008). Therefore, social welfare programs should be organized in such a way as to diminish these effects (Moffitt, 2002). In addition, social transfers, received by one member of the family may lead to reduction in supplied labor of other members of the family (Bertrand et al., 2003).

This paper studies the effects or reduction in poverty among disabled caused by social transfers on the level of unemployment of disabled in EU countries on macro level. We employ data collected by Eurostat in the European Union Labor Force Survey in 2011. We work with two definitions of disabled as operationalized by Eurostat: people having a basic activity difficulty (such as seeing, hearing, walking, communicating); and people having a work limitation caused by a longstanding health condition and/or a basic activity difficulty. Our results suggest that the bigger is the effect of social transfers on the level of poverty, the higher is the unemployment of disabled with only a basic activity difficulty. The effect of reduction in poverty caused by social transfers on unemployment of disabled with limitation in work caused by a health condition and/or a basic activity difficulty was not statistically significant.

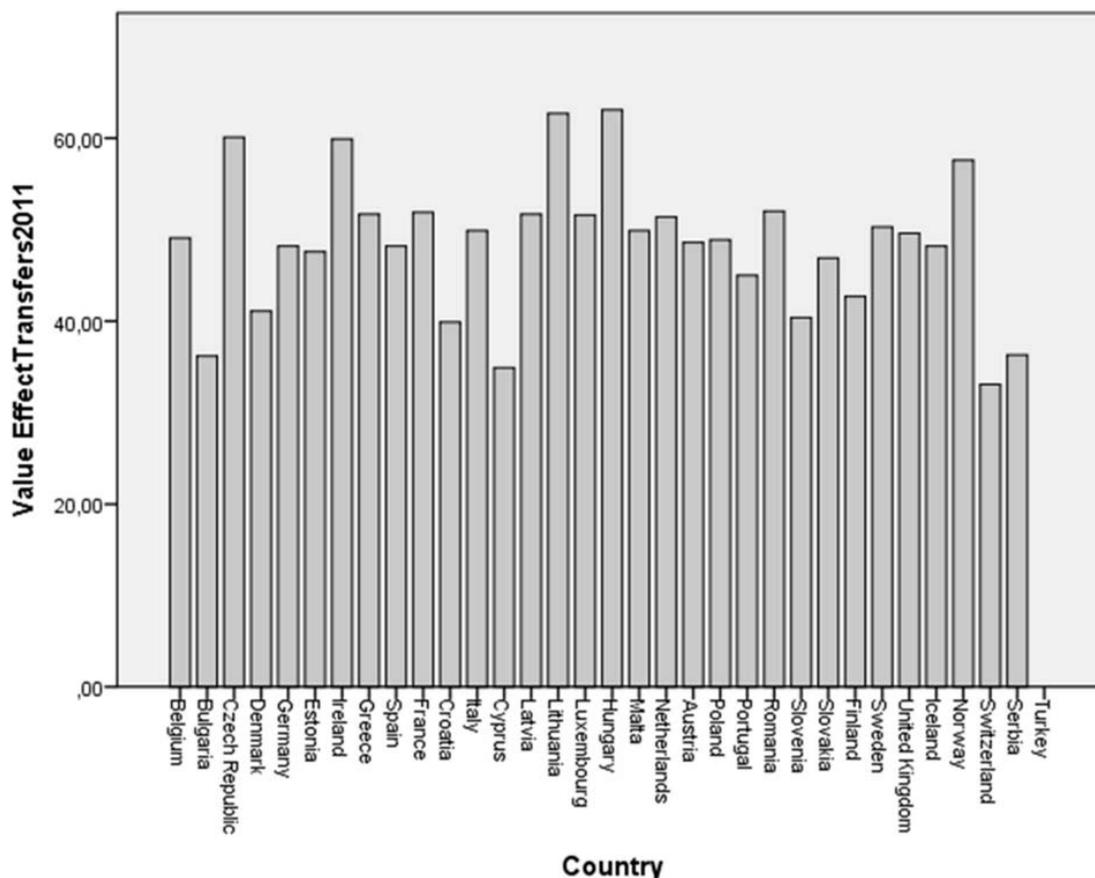


Fig. 1. The effect of social transfers on reduction of poverty of disabled in EU countries 2011. Type of disability – some and severe.

Source: Eurostat, own computations.

The paper is organized as follows. In the next section we briefly summarize the employment numbers and policies for disabled in European Union. Then, after the brief literature review we describe the data and the model. The last two chapters present and discuss the results and conclude.

Literature review

Employment of disabled people in the literature can be divided to two mainstreams. The first deals with reasons and benefits of employment for disabled and for the society as a whole. The second discusses the barriers to employment and the ways to overcome them. The methods and results of these studies depend significantly on the countries in question and on the specialization of researchers who study these issues. In the following survey, we suggest some most frequent ways to study the issues but do not aspire for the completeness of our list.

Employment brings disabled people not only the necessary income for reasonable life, but also serves as an important part of social inclusion (Verdugo *et al.* 2006, Cramm, *et al.* 2009). Competitive employment allows disabled people to work and communicate more with non-disabled people and be eligible for similar wages and other benefits (Verdugo *et al.* 2006). Employment also helps disabled to satisfy their needs for belonging and feeling being appreciated (Cramm *et al.*, 2009)

Employment prospects are also crucial for the construction of personal identity, satisfaction of important needs in their lives and for finding meaning of life itself. Similarly to non-dis-

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abled part of population, employment provide disabled with applying knowledge acquired and for development of their personal talents (Szymanski and Hershenson 2005).

On the other hand, there are important barriers that prevent disabled to enter the workforce and get employment. In this brief review, we will omit the physiological difficulties and concentrate more on social barriers.

Shier et al. (2009) studied barriers to employment of disabled people, such as discrimination, labelling and lack of accommodative practices in the workplace. The results of qualitative analysis of disabled people suggest that, among mentioned factors, discrimination and labelling have a greater impact on inability of disabled people to secure and maintain employment than the lack of accommodative practices on the workplace (Shier et al., 2009). Similar results were achieved by Colella et al. (1998).

The barriers for employment differ according to the country presented in the study. Rosenheck et al. (2006) studied the barriers to employment for people with schizophrenia in the USA. The authors conclude that the most important barrier for overall employment are the physical problems of patients. However, in the case of competitive employment as opposed to sheltered employment, adverse incentives of disability payments and race constituted the main barrier.

From the point of view of employers, there are certain difficulties they need to tackle concerning disabled employees. Hernandez (2008) suggested five main issues: (1) importance of disability employment agencies and disability advocates; (2) persistence of manager bias; (3) lack of promotion opportunities; (4) costs associated with having workers with disabilities; and (5) benefits associated with having workers with disabilities. The author stresses the necessity of education of administrators is costs and benefits associated with disabled employees.

Even though all these barriers are important, we suggest, that there is one more barrier – the barrier of poverty, which was not sufficiently covered by the literature. This paper analyses the relation of the effect of social transfers in relieving poverty on one side and the level of employment of disabled in EU countries on the other side.

Data

We use data collected by Eurostat, as updated 30.7.2014. The data were collected is 2011 when the European Union Labor Force Survey (EU-LFS) included an ad hoc module (AHM) on employment of disabled people. Overall, 32 countries have implemented the module: the EU 28 Member States plus Turkey, Iceland, Norway and Switzerland. The Norwegian data, though, were not disseminated because the AHM questionnaire in Norway only partly complies with the Commission Regulation (EU) No 317/2010 and consequently, the data are incomplete and partly comparable. Statistical population represents working age population (i.e. persons aged 15-64 years) living in private households and usually residing in Member States.

Main indicators and definitions

In order to study disabled population first we need to identify which types of health problems we will include to the definition of disability. In 2011 study Eurostat presents two main definitions for disability:

- Disabled persons are people having a basic activity difficulty (such as seeing, hearing, walking, communicating);
- Disabled persons are people having a work limitation caused by a longstanding health condition and/or a basic activity difficulty.

(Source: Eurostat)

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In the same study Eurostat presents the following definition of unemployed and unemployment rate.

- Unemployed persons are persons who were without work during the reference week, were currently available for work and were either actively seeking work in the past four weeks or had already found a job to start within the next three months
 - Unemployment rate represents unemployed persons as a percentage of the active disabled population
- (Source: Eurostat)

Given two definitions of disability, for unemployment rate of disabled people we use two indicators: unemployment rate of disabled people having a basic activity difficulty and unemployment rate among disabled people having a work limitation caused by a longstanding health condition and/or a basic activity difficulty consequently.

The other factor we study in the effect of social transfers on reducing poverty. The effect of social transfers is operationalized as following

$$\text{The effect of social transfers} = \frac{\text{percentage of disabled living in poverty after transfers}}{\text{percentage of disabled living in poverty before transfers}} \quad (1)$$

Hypotheses

In this paper we test the following hypotheses

- The effect of social transfers in reducing poverty among disabled is significantly related to the level of unemployment among disabled having basic activity difficulty only. The direction of the effect is however unclear since existing literature suggests both directions.
- The effect of social transfers in reducing poverty among disabled is significantly related to the level of unemployment among disabled having a longstanding health condition and/or a basic activity difficulty. The direction of the effect is however unclear since existing literature suggests both directions.

Methods

We employ linear regression analysis according to the following setting:

$$\text{Unemployment} = a_0 + a_1 \text{Transfers} + a_2 \text{GDP} + a_3 \text{Rate} + a_4 \text{Disabled} + a_5 \text{Poverty} + e \quad (2)$$

where

Unemployment – unemployment rate of disabled according to the definitions presented above, 2011

Transfers – the effect of social transfers, namely percentage of disabled living in poverty after transfers minus percentage of disabled living in poverty before transfers, 2011

GDP – GDP per capita, EUR, PPP, 2011

Rate – total unemployment rate in countries, 2011

Disabled – percent of disabled people in population, 2011

Poverty – poverty of disabled before social transfers, %, 2011

e – error term

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We control for the GDP per capita (EUR, PPP), overall level of unemployment, percentage of disabled living in the country, percentage of disabled living in poverty before social transfers.

Results

This section presents the results of the linear regression according to specification (2) for two indicators of disability: disabled with only a basic activity difficulty and disabled with limitation in work caused by a health condition or difficulty in a basic activity

Table 3 presents the results of linear regression analysis for unemployment of disabled with basic activity difficulty only, according to specification (2).

Table 3. Regression output for unemployment of disabled with basic activity difficulty only.

	B	Std. Error	Sig.	VIF
(Constant)	2,847	5,667	,620	
GDP per capita	-,000*	,000	,054	1,637
Unemployment rate	,868***	,146	,000	1,737
Disabled with only a basic activity difficulty, %	,087	,459	,852	1,487
Poverty before social transfers, %	-,115	,109	,304	2,243
The effect of social transfers	,244**	,089	,012	1,754
N	27			
R Square	0,796			

Source: Own computations. * sig. < 0,10, ** sig. < 0,05, ***sig. < 0,01.

From the table 3 follows, that the bigger is the effect of social transfers on the level of poverty, the higher is the unemployment of disabled people with only a basic activity difficulty. These results support our hypothesis 1 on 5% significance levels.

Moreover, we find that

- The higher is GDP per capita the lower is unemployment among disabled
- The higher is the overall unemployment rate, the higher is the unemployment among disabled

Table 4 presents the results of multinomial linear regression analysis unemployment of disabled with limitation in work caused by a health condition or difficulty in a basic activity (specification 2).

Table 4. Regression output for unemployment of disabled with limitation in work caused by a health condition or difficulty in a basic activity 2011

	B	Std. Error	Sig.	VIF
(Constant)	,688	11,613	,953	
GDP per capita	-,000	,000	,194	1,373
Unemployment rate	,840*	,262	,004	1,713
Percent Disabled	-,046	,200	,820	2,292
Poverty before social transfers %	-,276	,161	,101	1,747
The effect of social transfers	,016	,221	,942	1,230
N	27			
R Square	0,581			

Source: own computations. * sig. < 0,10, ** sig. < 0,05, ***sig. < 0,01

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The hypothesis 2 about the relation between the effect of social transfers on the level of poverty and the level unemployment of disabled with only a basic activity difficulty was not supported by our analysis. The possible reason might be less significant poverty levels in this group of disabled people comparing to the previous one, or additional motivation not to work if out of poverty.

The only significant relation is this analysis on conventional significance levels is the positive relation of unemployment among disabled people and total unemployment. The higher is the overall unemployment rate, the higher is the unemployment among disabled.

Conclusion

Employment for disabled people brings not only the necessary income for reasonable life, but also serves as an important part of social inclusion (Verdugo *et al.*, 2006; Cramm *et al.*, 2009). Competitive employment allows disabled to work and communicate more with non-disabled people and be eligible for similar wages and other benefits (Verdugo *et al.*, 2006). Employment also helps disabled to satisfy their needs for belonging and feeling being appreciated (Cramm *et al.*, 2009). These factors make employment even more important for disabled, than for general population.

Most of the EU countries attempt to support employment of disabled by adopting numerous strategies. Earlier strategies adopted in EU countries were designed to take into account what the disabled cannot do, while the recent employment strategies focus mostly on what disabled can do (Ren *et al.*, 2008, Greve, 2009). The current strategies focus on supporting part time work and job flexibility (shorter working hours, flexible attendance, work breaks, etc.) is the boundaries of regular employment. In order to motivate employers to provide disabled with such work contracts, most of European countries maintain some form of employment quotas for disabled. We argue that reduction of poverty of disabled people can also lower their unemployment levels.

Social transfers provide people with basic commodities and services, which may help them to find a job. On the other hand, classical economic models suggest that social transfers may demotivate people from looking for a job or prolong the period of voluntary unemployment (Saez, 2006; Ardington *et al.*, 2009; Skoufias and di Maro, 2008). Therefore, social welfare programs should be organized in such a way as to diminish these effects (Moffitt, 2002). Moreover, social transfers, received by one member of the family, may lead to reduction in supplied labor of other members of the family (Bertrand, *et al.* 2003).

This paper studies the effects of reduction in poverty among disabled caused by social transfers on the level of unemployment of disabled in EU countries. We use data collected by Eurostat in the European Union Labor Force Survey in 2011. We work with two definitions of disabled as operationalized by Eurostat: people having a basic activity difficulty (such as seeing, hearing, walking, communicating) and people having a work limitation caused by a longstanding health condition and/or a basic activity difficulty. Our results suggest that the bigger is the effect of social transfers on the level of poverty, the bigger is the unemployment of disabled with only a basic activity difficulty. The effect of reduction in poverty caused by social transfers on unemployment of disabled with limitation in work caused by a health condition and/or a basic activity difficulty was not statistically significant. These results suggest that supporting people with basic activity difficulty to overcome the line of poverty may increase unemployment in this category of people in the countries of European Union. However, no such effect was proven for disabled with limitation in work caused by a health condition and/or a basic activity difficulty.

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