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Welfare and Higher Education in EU Member States – Comparative Analysis[**]

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Abstract: *This paper addresses the issues related to higher education in selected EU Member States and its contribution to the creation of wealth. Special emphasis was placed on the shape of education policy in selected countries through an analysis of the main indicators characterizing the same. The paper raises a number of questions which are important from the point of view of social policy: these questions relate to the policy of higher education funding and attempts to isolate and identify the relationships between higher education funding and the situation of people with higher education on the labour market. In the first part of this paper, the author presents the phenomenon of welfare by taking into account its measurement, especially those measures that relate to education related elements. Then the author indicates the relationship between education, especially its availability, and the process of wealth creation in the economy. In the empirical part of the*

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paper an analysis is carried out on the basis of available and comparable indicators for selected EU Member States and conclusions are drawn based on the indicators.

Introduction

Issues related to economic development and the creation of national wealth have long been the subject of scientific discourse (Smith, 2007). Wealth, which was primarily associated with material prosperity, is of interest to researchers, especially in so far as it captures the essence of the phenomenon through its definition and appropriate measurement. Wealth creation is affected by numerous factors of a mixed character. One can look at wealth from the point of view of meeting an individual's different needs (Machaczka, 2001). In this approach, education occupies a major place because it meets the needs of the individual in the field of self-development and self-actualisation, talent development, desire to gain new skills, knowledge and understanding of the surrounding world and its underlying causes. In addition, higher education is seen as an important bargaining asset in the labour market, helping one find a well-paid and rewarding job. The massification of higher education has over the years contributed in the EU countries to an increase in the number of university graduates. The market has experienced an over-representation of people in possession of higher education, especially pedagogical, philological and economic (Drozdowicz-Bieć, 2014, pp. 3-9). The consequences of this phenomenon can be felt in the labour market, where members of this group are increasingly faced with a lack of job offers consistent with their skills and abilities (Kocór & Strzebońska, 2014). The EU sees a steady increase in the number of unemployed people with higher education1 (Dzierżek, 2014).

The paper highlights the impact of higher education in selected EU countries on the creation and multiplication of wealth. Its aim is to answer the questions posed in the paper about educational and social policies and attempt to isolate and identify the links between higher education funding and the situation of people with higher education on the labour market.

The paper is structured as follows: the first part presents the phenomenon of welfare, taking into account its very measurement, especially those measures that include education related elements, and then the author presents the relationship between education, especially its availability, and the process of wealth creation in the economy.

[1] Mean value of the indicator for UE countries: 2008 -3.9%, 2009- 5.0%, 2010 -5.5%, 2011- 5.6%, 2012 - 6.2%, 2013 – 6.5%.

The methodological part describes hitherto research, including it describes the indicators used in the analysis of this phenomenon, methods and ways of their use. The final part presents conclusions from the analysis and indicates directions for future research.

The Role of Education in Creating Welfare

Welfare is a complex and multidimensional concept. Pertinent literature features the following alternative terms related to wealth: level of wealth, standard of living, quality of life (Kot, *et al.*, 2004, p. 109). Level of wealth refers only to material values e.g. the size of a person's property. The quality of life, in turn, is a category mostly considered from the point of view of happiness, resources and satisfaction of an individual's needs. Quality of life is a broad term spanning many complex issues. It can accommodate categories such as consumption, otherwise immeasurable individual states of a person's satisfaction, happiness deriving from consumption, the use of natural resources, good health, an individual's education, prosperity in life, job satisfaction (Bywalec, 1991). According to Scanlon, the quality of life is the quality of the conditions in which life goes on, including protection from disease and danger, the possibility of good nutrition and education (Kot, *et al*., 2004, p. 111). The term "welfare" most often collocates with the "social" and "economic". "Socio-economic welfare" is another frequently used collocation. In economics, economic welfare is the utility of income and it underlies social welfare which means the state of meeting mainly health, education, leisure, place of residence and work related needs of the population. In the national economy, capital resources required for its generation, including physical, social and human capital constitute the basis for wealth creation. Economic welfare can be more broadly defined as a state consisting in the satisfaction of material and spiritual needs of the individual and society and as a trigger for a sense of self-actualisation enabling the attainment of happiness and shaping of individuals' ethical attitudes to the surrounding reality (Markiewicz, 2014, p. 7).

Social welfare has a broad meaning. This may be indicated by the broad array of its constituents, which according to E. Aksman (2010, p. 140), include: per capita GDP or GNP, level of total consumption, economic growth rate, productivity, technological progress, the level of public education, social security, population's health indicators, the degree of efficiency of administration and public safety, condition of the natural environment and the degree of development of the information society. All of the above descriptions of welfare feature education as an element leading to latter's

improvement. Pertinent literature regards education as an important element of the welfare state.

The importance of education in creating prosperity is also corroborated by the fact that many of aggregate indicators measuring welfare contain education related indicators. The aggregates include the HDI (Human Development Index)[2] which ranks countries on three levels: "long and healthy life", "knowledge" and "prosperous standard of living." HDI relies on the following indices: life expectancy, the average number of years of education received by the population aged 25 years and older, the expected number of years of education for children starting the education process, national expenditure per students in equivalent USD converted using PPPs for GDP (PPP $)[3]. Another indicator used to measure economic welfare is called the Index of the Economic Aspects of Welfare EAW (Borys, 1999). It basically relies on the calculation of the level of individual consumption, additionally taking into account the expenditure on education. In the Index of Sustainable Economic Welfare, among its many components there is also education, including the spending on education and education-related consumption. Quality of Life[4] is a welfare measure proposed by Eurostat, which publishes separate reports on each of the following aspects of quality of life: material conditions, health, education, leisure, safety, work, family and friends. These give a comparable picture of prosperity across countries. Current welfare measurement methodology favours aggregated indicators used in ranking building. An interesting compilation of several rankings that describe welfare in most countries around the world is offered by the Legatum Institute. Its indicator of prosperity is dubbed the Legatum Prosperity Index (Legatum, 2012). This ranking was developed on the basis of the following eight aggregated indicators: economic development, opportunities for companies, quality of public administration, education, health, safety and security, personal freedom and social capital.

In all of the above indicators education features as one of their components. The level of a country's education depends on numerous factors, including the educational policy. Educational policy is regarded as one of the elements of social policy. In particular, the emphasis is on development of and access to higher education, even if only because of the dependencies which are derived from the existence of people with higher education and

[2] Published by the United Nations Program for Development. The indicator was designed by A. Sen and Mahbub ul Haq.

[3] Details of the methodology the available in: World Development Indicators 2011, The World Bank.

[4] For more information see: Quality of Life: A Systems Model, The University of Oklahoma School of Social Work, http://www.gdrc.org/uem/qol-define.html

the dynamics of economic growth (Turski, 2000, p. 19). Wide access to general education smoothens up social inequalities, which is very important from the point of view of creating and multiplying wealth in society. Education forms a significant part of a person's life, indelibly shapes their personality, attitudes, skills and qualifications (Wronowska, 2012, p. 32.) Thus formed human capital is every person's unique resource which gives them a bargaining power in the labour market that distinguishes the person from other job applicants. Education plays a key role in shaping welfare, particularly in the area of meeting the needs of a higher order. Based on P. Spicker's theory of the welfare state (2005), one can point out two approaches to the creation of the theory the welfare state. The first one originates from the state's activities and programmes in the social sphere, and in the other, the welfare state is treated as an extension of mutual assistance and solidarity in the country. The author points out three basic assumptions on which the theory is based. They are as follows:

- People live within a society and have obligations and responsibilities to one another,
- Welfare is attainable and safeguarded through social activities,
- The welfare state is a means of increasing and safeguarding society' welfare.

In a narrow sense, the welfare state may refer to the state's tools to provide social services confined to health, education, housing and income maintenance (Pierson, 1998, p. 7). According to T. Marshall (1975) social policy is a government policy on the action that directly affects the well-being of citizens by providing them with services or income.

Given these above characteristics of the role of social policy in shaping welfare, one can reflect on the effects of educational policies on welfare, which is its element. The funding of higher education with public money fits in with the provision of education related social services by the state. Funding of this area with public money offers broad access for the public to such services, which demonstrates that education implements equality of opportunity. Higher education is a service craved for numerous reasons, including because of the prestige attributed to this level of education and the role it plays in the job search process. It is believed that education is an argument giving bargaining power in the labour market, in many ways allowing one to find a satisfactory job. Now, when higher education is more accessible to a wider audience than a dozen years ago, the massification of the process of acquiring knowledge at this level has its consequences, both positive and negative. The benefits include the fact that a larger percentage of the population taps into the opportunity to acquire knowledge, skills and qualifications at this level of education. This is re-

flected in the growth of welfare in the society. Adverse effects of the massification of higher education relate primarily to developments on the labour market. The supply side predominates and the market cannot cope with it because it does not offer enough jobs consistent with acquired education and aptitude. There is stiff competition, which prolongs the process of entering the labour market and, consequently, increases demand for social policy programmes, in particular for unemployment benefits. Given the above interdependencies, i.e. on the one hand, broad access to higher education and, on the other, the impossibility of finding employment consistent with education, the paper poses the following questions: Are there any relationship, and if so, what is their nature, between higher education funding with public money and the level of unemployment among people with higher education? Can similar relationships be ascertained in all EU countries under analysis or only in some of them? Can higher education spending be treated as a substitute for the demand for programmes implemented within the framework of social policy? Will higher education in the countries surveyed match the classical classification of welfare states as liberal, conservative and social democratic regimes[5]? (Esping-Andersen, 1990, p.44-45, Esping -Andersen, 2001).

The research

The study covers 20 selected EU countries. The choice of countries was dictated by the availability and comparability of statistical data. Higher education in the selected group was analysed based on quantitative indicators including[6]:

1. Gross enrolment ratio in tertiary education[7],
2. Public tertiary educational expenditures as a percentage of GDP[8]
3. Share of public expenditure on tertiary educational institutions (%)[9]

[5] Research into this area was conducted e.g. by: N. Willemse and P. de Beer, K. Czarnecki K.

[6] The indicators selected for this research do not cover all that can be used to measure prosperity/ welfare. They refer to recognition of prosperity only in the aspect of education at a higher level. The individual indicators provide information on what percentage of people in the relevant age group has higher education, what sources and in what proportions is financed higher education and what level of unemployment is characterized by highly educated people between the ages of 25-29 years in selected EU countries.

[7] http:data.worldbank.org/indicator/SE.TER.ENRR/countries?

[8] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_figdp&lang=en

[9] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_figdp&lang=en

4. Annual expenditure per students in equivalent USD converted using PPPs for GDP[10].

The author also used a quantitative variable capturing the situation of people with higher education in the labour market i.e. youth unemployment by age[11].

The author relies mainly on the following sources and databases: Eurostat, World Development Indicators 2014, Education at Glance 2013, Education at Glance 2014: OECD Indicators. The data is for 2011, with supplementary information from 2010 being used in just one case.

The analysis was performed relying on rankings developed on the basis of a mean value and standard deviation. This allowed for the creation of three sets ordering the examined countries into relevant groups. This in turn facilitated the inference of conclusions. In the case of indicators relating to higher education, ranks 1, 2 and 3 emerged, 1 being the lowest rank, and 3 – the highest. The higher the indicator value, the higher the rank. In the case of the labour market indicator, ranks 1, 2, 3 were also established, but here the lower the ratio, the higher the rank.

The summary table 1 presents the indicators and author's own calculations used in the paper.

By analysing the enrolment rate in higher education for the selected group of countries one can see that it is diverse and ranges from 55 for Slovakia to 95 for Finland, the latter being the maximum value in the sample. This indicator reveals the percentage of students at a given level of education in relation to the number of people of an age corresponding to that level of education. It shows the utilisation of the access to higher education. With regard to this indicator, the countries are arranged into three groups. Group 1, with the lowest level of the indicator, features: Slovakia, France, Germany, Hungary, Great Britain, Italy, Czech Republic, Portugal, and Latvia. Group 2 features the countries with an average level of the indicator: Austria, Belgium, Denmark, Estonia, the Netherlands, Ireland, Sweden, and Poland. Group 3 consists on just three countries, where the indicator is the highest – Finland, Slovenia and Spain.

[10] Education at a Glance 2014: OECD Indicators, p. 249, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=educ_fitotin&lang=en

[11] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=une_rt_a&lang=en

Table1. Indicators in tertiary education and labour market in select EU countries

Country name	Gross enrolment ratio in tertiary education	Rank	Public tertiary educational expenditures as percentage of GDP	Rank	Share of public expenditure on tertiary educational institutions (%)	Rank	Annual expenditure per students in equivalent USD converted using PPPs f or GDP	Rank	TOTAL rang	Unemployment rate among people with higher education in the 25-29 age group	Rank
Austria	70	2	1.5	2	86.9	3	12 942	2	**9**	3.9	3
Belgium	69	2	1.4	2	90.1	3	13 468	2	**9**	5.5	3
Czech Republic	65	1	1.4	2	81.1	2	7 507	1	**6**	5.5	3
Denmark	77	2	1.9	3	94.5	3	19 509	3	**11**	9.2	2
Estonia	75	2	1.7	3	80.4	2	5 405	1	**8**	7.9	2
Finland	95	3	1.9	3	95.9	3	17 260	3	**12**	6.0	3
France	57	1	1.5	2	80.8	2	12 360	2	**7**	7.1	2
Spain	83	3	1.3	2	77.5	2	N.A.	N.A.	**7**	19.7	1
Netherlands	76	2	1.8	3	70.8	1	12 590	2	**8**	3.1	3
Ireland	73	2	1.5	2	90.6	3	N.A.	N.A.	**7**	10.5	2
Latvia	67	1	1.5	2	62.6	1	4 384	1	**5**	9.5	2
Germany	57	1	1.3	2	84.7	2	13 927	2	**7**	2.8	3
Poland	74	2	1.3	2	75.5	2	5 056	1	**7**	9.3	2
Portugal	67	1	1.4	2	68.6	1	6 043	1	**5**	14.3	1
Slovak Republic	55	1	1.0	1	78.9	2	6 170	1	**5**	12.5	1
Slovenia	85	3	1.1	1	85.2	3	7 858	1	**8**	13.4	1
Sweden	74	2	1.7	3	89.5	3	18 163	3	**10**	6.3	3
Hungary	60	1	1.0	1	78.5*	2	6 786	1	**5**	7.0	2
United Kingdom	61	1	1.2	1	30.2	1	4 049	1	**4**	5.2	3
Italy	64	1	1.0	1	66.5	1	6795	1	**4**	16.0	1

* 2010 data.

Sources: author's own calculations based on Eurostat data, OECD (2014), Education at a Glance 2014, Education at a Glance 2013.

The second of the indicators sheds light on the amount of higher education funding with public money in relation to GDP. This is one of the determinants of the social policy pursued in the field of the public funding of education. The indicator reveals the existence of the following three groups: group 1, including the countries with the lowest level of the indicator, features: Hungary, Great Britain, Italy, Slovakia, and Slovenia. Group 2 consists of: Austria, Belgium, Czech Republic, France, Spain, Ireland, Latvia, Germany, Poland, and Portugal. Group 3 features Sweden, the Netherlands, Finland, Estonia and Denmark. As far as the level of this ratio is concerned, since 2000 there has been on a steady increase in all of the surveyed countries (Education at the Glance, 2014, s. 231).

The third indicator is related to the percentage share of public funds in the financing of higher education in the overall sum of public and private funds allocated for this purpose. It seems to be the most important indicator in the set. The higher the share of state financing of higher education, the wider the audience availing itself of the service provided by the state in pursuit of social policy. This contributes to the creation of welfare, by creating an opportunity to satisfy higher order needs in the community and at the same time to enhance the quality of human capital in the economy. The legitimacy of public funding of education is related to the concept of the social investment state (Busemeyer & Marius, 2013), which emphasises that activation through education of human capital and potential, which should be treated as an investment in the future constitutes the main purpose of public spending.

On the basis of this ratio the countries can be grouped as indicated below. Group 1 comprises the countries with a low indicator level: Italy, Portugal, Latvia, the Netherlands, and the United Kingdom, which reveals the lowest level of the index at just 30.2%. Group 2 features Hungary, Slovakia, Poland, Germany, Spain, France, Estonia and the Czech Republic. The countries where higher education draws mainly on public funds are Austria, Belgium, Ireland, Slovenia, Sweden, Denmark and Finland, where the indicator reaches 95.9%. These countries constitute group 3.

The last of the indicators in this group shows the level of expenditure on higher education expressed as an amount per student. The countries that belong to group 1 are the Czech Republic, Estonia, Latvia, Poland, Portugal, Slovakia, Slovenia, Hungary, Great Britain, and Italy. Group 2 consists of Germany, the Netherlands, France, Belgium, and Austria. Group 3 countries are Denmark, Finland and Sweden. Statistics on Spain and Ireland were not available. In order to determine the status of implementation of education policies in these selected countries, the author created a collec-

tive ranking based on the four sub-rankings. The results are presented below.

Table 2. Composite ranking

Rang	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**
Countries	FI	DK	SE	AT, BE	SI, NL, EE	FR, IE, DE, **PL**	CZ	LV, PT, SK, HU	IT, UK

Source: author's own calculations based on table 1.

Based on the above, the countries can be ranked as follows. The highest possible rank is 12 and it is a rank that constitutes a benchmark of educational policy for the surveyed countries. Finland proved itself to be the benchmark and it is followed by Denmark at 11 and Sweden at 10. All three represent the social democratic regime. Countries with a ranking ranging between 9 and 5 represent the conservative regime, while countries with a ranking of 4 represent the liberal regime. This division is not final, and refers to a division proposed by Sam Yu (2012, p. 263) for other areas related to the welfare state and social policy.

Comparing the rankings in Table 1 in the area of education with a ranking for the labour market (Table 1), it can be said that there is no clear relationship between the phenomena discussed. However, one can see some relationships in the case of smaller groupings, notwithstanding the fact that caution should be exercised when drawing conclusions. In a few cases including Austria, Belgium, Finland, Sweden (ranked 3 and 3 respectively) a high share of public expenditure on higher education means the level of unemployment among people with higher education in the 25-29 age group is low. These cases may confirm the validity of the claim that educational policies can be substitutive in relation to social policy in these countries because a low unemployment rate is also indicative of low demand for social policy programmes. This dependence is not ascertained in Slovenia though, where high public expenditure on higher education (rank 3) is also accompanied by a high unemployment rate in the surveyed group of people (rank 1). In this case, universal access to higher education contributes to the massification of the phenomenon, whereby the number of university graduates increases and this, in turn, entails greater competition in the labour market. This phenomenon undermines the argumentation in favour of edu-

cational policy being a substitute for social policy. In the case of the Netherlands and the UK, a low share of public expenditure on higher education (rank 1) is coupled with a high unemployment rate in the age group studied. This dependence can confirm the claim that in those countries there may be complementarities within social policy, between educational policy and social policy. The other surveyed countries do not permit one to draw firm conclusions. It would seems reasonable to extend the set of indicators to incorporate further indicators form the area of higher education and the labour market which would deepen the analysis.

Conclusions

The paper presents the phenomenon of welfare and ways of defining and measuring it, and underlines the importance of education in shaping it. As a result of analysis based on quantitative indicators, one can indicate the possibility of grouping countries implementing educational policy within the concept of the welfare state according to the type of their regime. One cannot clearly indicate a trend in the relationship between the level of higher education funding with public money and the size of the unemployment rate in the age group studied. The cases of some countries may confirm the possibility of both substitutability and complementarities between educational and social policies in these countries. On the basis of the set of indicators used, one cannot draw clear-cut conclusions for all the countries surveyed. The research problem is more complex and the study should continue by expanding the analysis to other aspects, including the aspects of the quality of social policy.

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