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PEOPLE WITH DISABILITIES IN THE LABOUR MARKET – MAIN CHALLENGES, FIRST NEEDS

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The analysis of labour market participation of the working-age population is a complex issue due to the multitude of factors determining this phenomenon, e.g. age, material status, availability of labour market offers to meet individual employee's needs. People with disabilities are undoubtedly among those most at risk of social exclusion, which is clearly indicated and underlined by the issues addressed in this article. The current economic situation in Poland makes it possible for people with disabilities to undertake professional activity, especially in so-called sheltered employment conditions – in sheltered workshops, as well as in open employment conditions – in commercial enterprises. The results of research presented in this article are intended to present the economic situation of people with disabilities in Poland in comparison with other EU countries. Based on the results of own research, carried out in cooperation with a non-profit organisation – one of the most recognisable student associations in Poland – and on statistics from individual EU countries collected by government institutions, a model was created to forecast the demand for jobs in both market environments. The need of people with disabilities both to integrate with non-disabled people and their reluctance to work in closed environments of people with disabilities and the resulting social conditions were recognized.

Keywords: economic activity, disability, labour market, social impact

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1. INTRODUCTION

Disability is a global phenomenon. It determines the health status of our civilization. In Europe, a large share of the population suffers from a disability and consequently many people continue to be excluded from the labour market. This means that people are either held back from accessing a job or they experience difficulties in finding and retaining a job in EU countries (European Commission, 2019). According to the available research, the second most significant reason for economic inactivity among the working-age population in Poland is illness or disability – this reason was indicated by 25.2% persons (36.5% men and 16.6% women) (Central Statistical Office of Poland, 2020). In this article, the concept of disability is defined in accordance with the accepted definition recognized by the World Health Organization (World Health Organization, 2011).

Regardless of the reasons, disability is considered a serious social problem (Schianchi, 2009; Ferrucci, 2017, p. 542; Oliver, 1990), indirectly affecting the economy of a given country (Yeo, Moore, 2003). The scale of justification for the existence of the research problem was presented against the background of the population of people with a disability and without in EU countries.

The aim of the study was to show quantitatively and as a percentage the economic activity of people with disabilities on the labour market in Poland and in EU countries, including: the population able to work, employee, unemployed and inactive. The results of research presented in this article are intended to present the economic situation of people with disabilities. The choice of countries took place according to the adopted criterion: 6 countries of the lowest and the highest percentage of disabled people in reference to total population, and Poland and the EU. Based on the analysis of data collected in the years 2004-2019, regarding the scope of fluctuations in trends and increases resulting from differences in the economic behaviour of sheltered workshops and people with disabilities active on the commercial labour market in Poland, a research question was posed: Is working under sheltered conditions still an attractive form of employment? The answer was obtained by creating a mathematical equation, using the indicated methodology.

The collected results were compared with the results of own research, made in cooperation with a non-profit organization, one of the most recognizable student associations integrated two worlds: ability and disability in Poland. This identified the main challenges for people with disabilities in the labour market (Czerkowski et al., 2021; Jurga, Czerkowski, 2017).

2. METHODOLOGY AND METHODS

In order to select the best method, several possibilities were analysed including the MARS method and artificial neural networks (ANNa) (Gütmen, 2019; Nalcaci, Özmen, Weber, 2019, p. 1033-1049). Finally, due to the specificity of the collected data, it was decided to use the tools of mathematical analysis and linear regression in the research. The current situation in the labour market is shown in terms of a correlation: the number of employers who own sheltered workshops to the number of disabled employees.

The correlation is shown by indicating the coefficient of this change according to the data available in each January from 2004 to 2019. A mathematical formula was established to calculate the predictable number of PEFRON companies that should exist on the Polish market.

To obtain the presented research results, two mathematical variables were used:

- predictor: based on a set of numbers of the employees with disabilities choosing a job in the commercial labour market $[\hat{y}]$,
- dependent variable: number of employers who are sheltered workshops owners $[x_i]$, by generating the ratio of change of the coefficient, which enables the forecasting of trends in the market demand for the sheltered workshops, which is an on-site survey of the sheltered workshops in the commercial labour market.

The formula for linear regression was used (1):

$$\hat{y} = b_1 \cdot x_1 + b_2 \cdot x_2 + \dots + b_i \cdot x_i + a \quad (1)$$

where:

\hat{y} – dependent variable, explained variable, predicted variable,

x_i – predictor in the model, another explanatory, predictive variable,

b_i – slope for the given predictor in the linear regression model,

a – intercept,

i – observation number.

The results were supported by additional studies conducted among members of one of the most recognizable student associations which integrated two worlds: ability and disability in Poland, and were correlated with global data carried out by government institutions. To create own survey 103 respondents were assessed. The question was asked: What type of company would you like to work for? Possible answers were as stated below: (1) small commercial enterprise employing mainly people with disabilities, (2) small commercial enterprise where several people with disabilities work, (3) big commercial enterprise employing mainly people with disabilities, (4) big commercial enterprise where several people with disabilities work, (5) no matter, (6) sheltered workshops with people similar to me, (7) sheltered workshops where there are people with disabilities and without disabilities.

3. THE ECONOMIC SITUATION OF PEOPLE WITH DISABILITIES IN THE EU – DISCUSSION

In the European approach, which takes into account only biological disability, people with disabilities in Poland – according to the EHSIS study – constitute 17.7% of the population of people aged 15 and more (tab. 1).

Table 1. Population by gender and age

Country	Population [thous.]			Disabled [thous.]			Disabled [%]		
	Total	Males	Females	Total	Males	Females	Total	Males	Females
Austria	7 110.3	3 440.9	3 669.4	1 162.7	517.3	645.4	16.4	15.0	17.6
Belgium	9 263.6	4 344.2	4 919.4	1 553.4	594.2	959.2	16.8	13.7	19.5
Bulgaria	6 389.4	3 084.8	3 304.6	1 369.5	580.1	789.5	21.4	18.8	23.9
Cyprus	694.7	328.8	365.9	104.1	48.5	55.7	15.0	14.8	15.2
Czechia	8 964.2	4 367.3	4 596.9	1 272.1	508.7	763.4	14.2	11.6	16.6
Denmark	4 584.5	2 263.5	2 321.0	919.3	393.2	526.1	20.1	17.4	22.7
Estonia	1 131.9	510.9	621.0	225.1	76.6	148.5	19.9	15.0	23.9
EU*	415 591.4	201 312.8	214 278.6	73 030.6	30 390.2	42 640.3	17.6	15.1	19.9
Finland	4 488.4	2 190.7	2 297.7	767.5	353.8	413.7	17.1	16.2	18.0
France	49 859.9	23 803.4	26 056.5	6 805.4	2 925.3	3 880.1	13.6	12.3	14.9
Germany	70 527.8	34 510.5	36 017.3	14 783.8	6 633.1	8 150.7	21.0	19.2	22.6
Greece	9 373.5	4 578.8	4 794.7	1 686.6	658.8	1 027.8	18.0	14.4	21.4
Hungary	8 371.4	3 912.1	4 459.3	2 072.8	829.7	1 243.1	24.8	21.2	27.9
Italy	51 107.7	24 460.5	26 647.2	7 399.5	2 805.9	4 593.6	14.5	11.5	17.2
Latvia	1 721.0	767.9	953.2	405.4	139.9	265.4	23.6	18.2	27.8
Lithuania	2 550.2	1 151.3	1 398.9	585.5	211.0	374.5	23.0	18.3	26.8
Luxembourg	423.6	210.4	213.2	68.3	31.6	36.8	16.1	15.0	17.3
Malta	350.1	173.8	176.3	42.1	17.7	24.4	12.0	10.2	13.8
Netherlands	13 901.7	6 852.8	7 048.9	2 395.1	960.2	1 435.0	17.2	14.0	20.4
Poland	32 719.5	15 598.5	17 121.0	5 805.1	2 200.0	3 605.2	17.7	14.1	21.1
Portugal	8 414.2	4 097.3	4 316.9	1 224.5	508.0	716.5	14.6	12.4	16.6
Romania	18 124.4	9 197.2	8 927.2	3 263.6	1 458.0	1 805.6	18.0	15.9	20.2
Slovakia	4 562.8	2 279.7	2 283.1	814.1	309.6	504.5	17.8	13.6	22.1
Slovenia	1 760.7	880.9	879.9	320.3	137.5	182.7	18.2	15.6	20.8
Spain	39 169.8	19 147.0	20 022.8	6 551.1	2 549.8	4 001.3	16.7	13.3	20.0
Sweden	7 944.0	3 813.4	4 130.7	1 165.0	459.5	705.5	14.7	12.0	17.1
UK	52 082.0	25 346.6	26 735.4	10 268.5	4 482.4	5 786.1	19.7	17.7	21.6

* 27 countries, Croatia excluded.

Source: own study based on EHSIS survey in 2012 (Eurostat. Disability statistics – Statistics Explained Eurostat, ec.europa.eu/, 10.09.2021).

It is almost the same percentage as the average share of the disabled population in the whole EU, i.e., 17.6%. Countries with the highest percentage of people with disabilities (above 20%) are: Denmark (20.1%), Germany (21.0%), Bulgaria (21.4%), Lithuania (23.0%), Latvia (23.6%) and Hungary (24.8%). The lowest shares of people with disabilities (less than 15%) are the following countries: Malta (12.0%), France (13.6%), Czechia (14.2%), Italy (14.5%), Portugal (14.6%) and Sweden (14.7%).

In Malta the lowest percentage of women and men (13.8% and 10.2% respectively), and the highest in Hungary (27.9% and 21.2%), which is the same as the percentage of people with disabilities in the total population, were observed. In the Poland – EU comparison, this regularity is not respected. If in the case of men a 1% difference in favour of the EU was observed (respectively: 15.1% and 14.1%), for women in the percentage share there is a 1.2% difference in favour of Poland (respectively: 21.1% and 19.9%).

The basic problem with collecting data on the population of people with disabilities is the definition difficulties. They are visible both in censuses and surveys conducted as part of public statistics, and outside it in administrative registers. Due to this phenomenon, almost every available source, e.g., on the census, economic activity in Poland and the EU provides data on a partially different group, e.g., age. Thus, the collected data on the population of people with disabilities are random and do not form a coherent picture (Maag, Wittenburg, 2003).

Currently, the common reference framework and terminology is presented by the International Coaching Federation (ICF). There are not many tools for measuring disability compatible with this classification (Antczak et al., 2018, p. 21-43). Referring to administrative data, it should be stressed that available data can mainly provide information about the size and basic characteristics of groups of disabled people with specific certificates. However, they cannot be the basis for estimating the size and characteristics of the general population of disabled people in Poland, because not all disabled people apply for a legal document confirming their disability. Polish jurisprudence systems refer to the understanding of disability in medical terms, in relation to a specific type of disease. They do not assess the functioning of people with disabilities in terms of basic activities. In the case of social participation, the assessment is general, not adapted to the individual situation of a given person. Thus, the Polish system of jurisprudence is not adjusted to the standards promoted by ICF. The size of companies employing people with disabilities and the value of quality, to which all participants in commercial markets attach increasing importance, are also important (see also: Małecka, 2018, p. 246-253; Małecka, Łuczka, 2018, p. 254-261).

In Poland, the collection of data on persons is carried out by state bodies, a study that is a study of public statistics. Among them, the following were listed:

- NC (National Census),
- LFS (Labour Force Survey).

Table 2. Persons in total, by type of disability, age and labour status

Country	Population			Employed			Unemployed			Inactive		
	Total	Disabled		Total	Disabled		Total	Disabled		Total	Disabled	
	[thous.]	[thous.]	[%]	[thous.]	[thous.]	[%]	[thous.]	[thous.]	[%]	[thous.]	[thous.]	[%]
Bulgaria	4 863.6	389.5	8.0	2 849.7	69.4	2.4	365.6	19.3	5.3	1 648.3	300.8	18.3
Czechia	7 234.3	698.4	9.7	4 771.3	241.1	5.1	347.5	64.0	18.4	2 115.5	393.3	18.6
Denmark	3 614.2	609.5	16.9	2 650.3	252.6	9.5	213.7	38.3	17.9	750.1	318.7	42.5
EU*	317 520.0	34 777.9	11.0	203 051.2	13 266.0	6.5	22 345.4	2 789.9	12.5	92 123.5	18 721.9	20.3
France	39 564.2	4 190.1	10.6	25 271.5	2 496.9	9.9	2 619.3	627.7	24.0	11 673.4	1 065.5	9.1
Germany	46 210.7	4 718.0	10.2	31 542.9	1 688.6	5.4	2 483.5	467.3	18.8	12 184.3	2 562.1	21.0
Hungary	6 692.5	757.0	11.3	3 744.7	137.3	3.7	455.5	45.7	10.0	2 492.4	573.9	23.0
Italy	36 737.7	2 545.4	6.9	21 205.2	942.5	4.4	1 839.8	121.8	6.6	13 692.7	1 481.0	10.8
Latvia	1 381.7	160.3	11.6	835.3	65.3	7.8	176.7	17.8	10.1	369.7	77.2	20.9
Lithuania	2 040.4	243.1	11.9	1 227.8	79.0	6.4	232.4	29.1	12.5	580.2	135.1	23.3
Malta	289.1	29.7	10.3	165.9	8.9	5.4	13.4	nd	nd	109.8	19.4	17.7
Poland	25 824.1	2 950.0	11.4	15 394.9	774.0	5.0	1 630.4	135.9	8.3	8 798.7	2 040.1	23.2
Portugal	7 096.8	1 310.4	18.5	4 602.2	576.4	12.5	673.2	112.7	16.7	1 821.4	621.3	34.1
Sweden	6 110.7	864.6	14.1	4 528.9	531.9	11.7	375.6	68.3	18.2	1 206.2	264.4	21.9

Source: own study based on the LSF survey in 2011 (Eurostat. Disability statistics – Statistics Explained Eurostat, ec.europa.eu/, 10.09.2021).

In the European Union, however:

- EHSIS (European Health and Social Integration Survey),
- LFS (Labour Force Survey).

EHSIS is a survey to find the health status of the population of the European Union. The last such study in Poland was in 2014 on a random sample of over 12,000 households (approximately, 29 000 people). The population to which it is generalized is the population of Poland living in households (including children). Legal disability criteria and tests were used. The examined age of circumstances for able-bodied and disabled people is 15 years and more (Piekarzewska et al., 2016).

It can be observed in the research that the European Union Labour Force Survey (EU LFS) allows a satisfactory estimation of the population with its four step criteria):

- population,
- employed,
- unemployed,
- inactive (see also: Greve, 2009; Martí, Ródenas, 2007, p. 101-126).

Through this survey, the workforce of people with disabilities could be determined (tab. 2).

To explore this, verification criteria were used. The 6 countries of the lowest – to the highest percentage of disabled people in reference to the total, in Poland and the EU from table 1 have been chosen. According to data juxtaposed in table 2, an observation was made: the criteria employed and unemployed for Poland and the EU are similarly aggregated (employed: 5.0%, 6.5%, unemployed: 8.3%, 12.5%). In contrast, further indicators examined showed that: population and inactive, data aggregates are the opposite (population: 11.4%, 11.0%, inactive: 23.2%, 20.3%), what clearly show criteria connections for selected countries (fig. 1).

What is important is the share of each of the surveyed groups. Data for Poland showed that, in general, the share of people with disabilities registered in the country is higher than the EU average (by 0.4%). At the same time, far fewer people with disabilities are employed (share – 1.5% on the EU average), while at the same time, the proportion of unemployed people with disabilities is higher (4.2% lower among the unemployed). On the other hand, there are 2.9% more inactive people with disabilities in Poland than the EU average.

Poland has the third largest registered population of people with disabilities, after Germany, France and before Italy and Portugal (in thousands: DE-4718.0; FR-4190.1; PL-2950.0; IT-2545.4; PT-1310.4 respectively). The countries with the lowest levels of registered persons with disabilities include: Malta, Latvia, Lithuania and Bulgaria (respectively in thousands: MT-29.7; LV-160.3, LT-243.1; BG-389.5). However, when examining the importance of the issue in relation to the general population, the most numerous registered group of people with disabilities is declared by Portugal (18.5%), Denmark (16.9%) and Sweden (14.1%). Above the EU average are also Lithuania (+0.9%), Latvia (+0.6%), Poland (+0.4%) and Hungary (+0.3%).

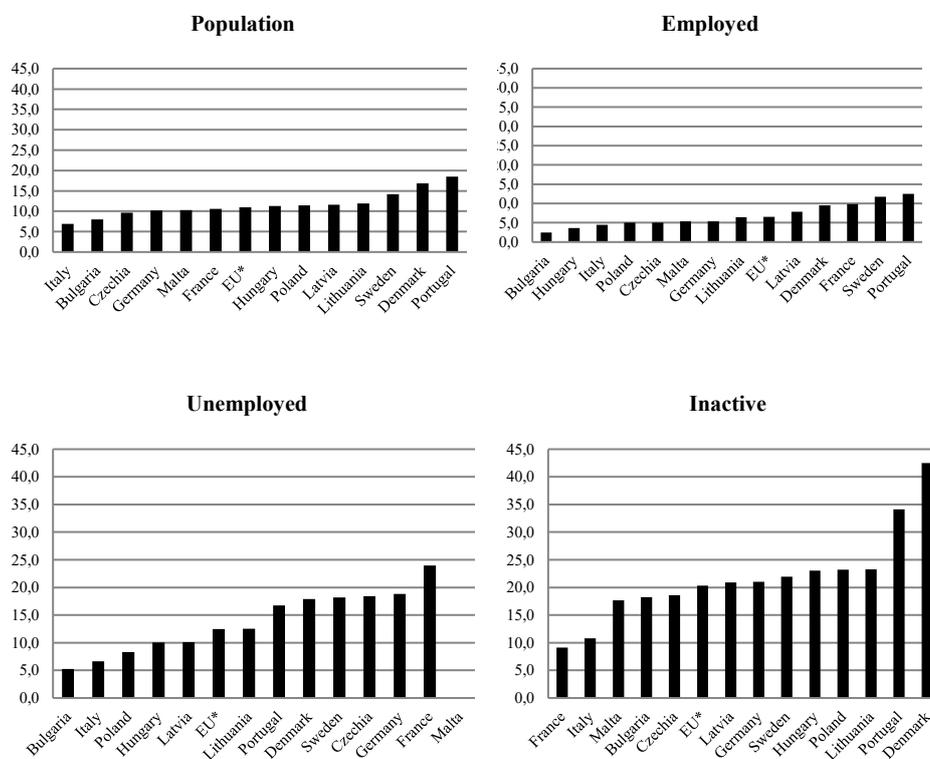


Fig. 1. Persons in total, by type of disability, age and labour status (own study based on the LSF survey in 2011; Eurostat. Disability statistics – Statistics Explained Eurostat, ec.europa.eu/; 10.09.2021)

4. DISABILITY LABOUR MARKET IN POLAND – RESULTS OF THE STUDY

The institution monitoring registered economic activity of people with disabilities in Poland is a unit of the State Fund for Rehabilitation of Disabled People (PFRON, 2021). PFRON is an administrative body belonging to the group of special purpose funds, i.e. those whose revenues come from public funds, while their costs result from the implementation of specific public tasks. The mission of PFRON is “to facilitate people with various dysfunctions to take an active and full part in professional and social life”. Importantly, the fund operating in Poland is not subordinate to the Ministry of Finance but acts as an independent administrative body, i.e. it decides sovereignly on both the value and destination of

the funds collected. It gathers information on services covered by public support, i.e., sheltered workshops. Reporting activities have been carried out since 2004 (fig. 2 and 3) (Wapiennik, 2008, p. 137-141).

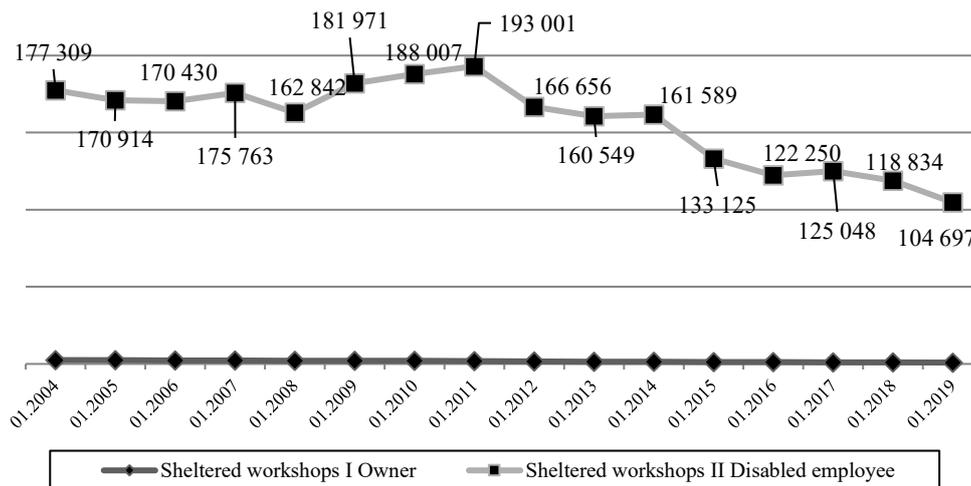


Fig. 2. Persons in total, by type of disability, age and labour status in Poland, registered in PFRON – sheltered workshops (own study based on PFRON, 2021, niepełnosprawni.gov.pl/; 10.09.2021)

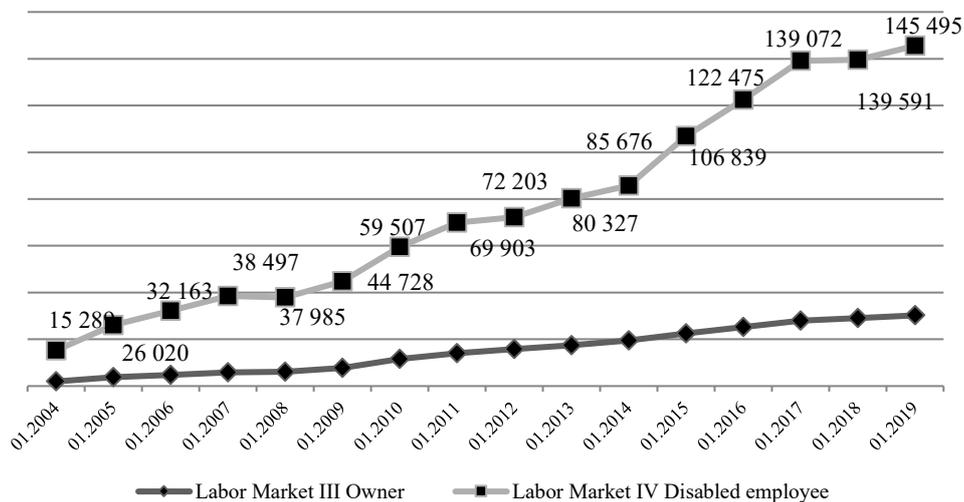


Fig. 3. Persons in total, by type of disability, age and labour status in Poland, registered in PFRON – labour market (own study based on PFRON, 2021, niepełnosprawni.gov.pl/; 10.09.2021)

Calculations performed on the tested data set (A) and (B) from figure 1 and 2 using linear regression. The formula above applies when there are multiple predictors for the regression model. There is a slope (b_i) for each predictor. For one predictor, and thus for the case described in the article, the equation model takes the form (2):

$$\hat{y} = b \cdot x + a \quad (2)$$

The following formulas were used to calculate the parameters a: intercept and b: directional factor (3 i 4):

$$a = \bar{y} - b \cdot \bar{x} \quad (3)$$

$$b = \frac{n \cdot \sum_{i=1}^n x_i \cdot y_i - \sum_{i=1}^n x_i \cdot \sum_{i=1}^n y_i}{n \cdot \sum_{i=1}^n x_i^2 - (\sum_{i=1}^n x_i)^2} \quad (4)$$

where:

n – number of observations,

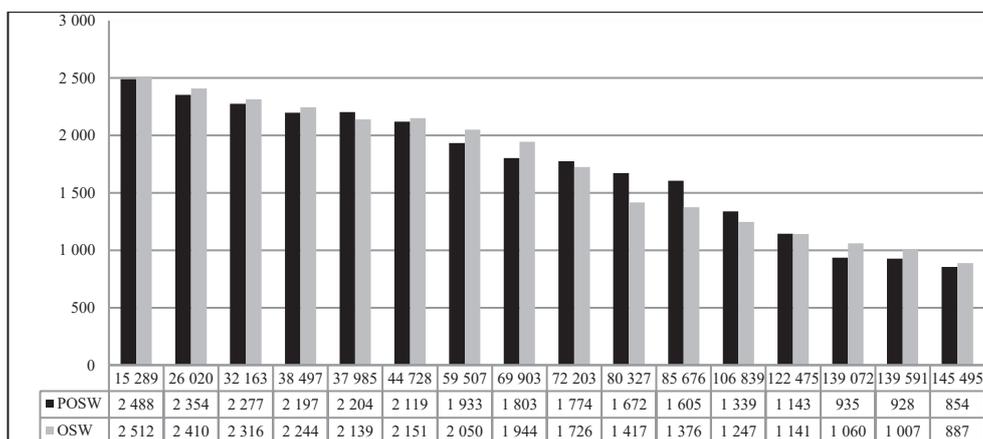
i – observation number, $i = 1, 2, \dots, n$.

Using Equations (3), (4) and data from figure 1 the study resulted in a value for a (5):

$$a = 2\,680.29, b = -0.1 \quad (5)$$

By substituting the calculated values of regression parameters a and b into equation (2) (fig. 2), a simple linear regression equation for the case under consideration was obtained (6) (fig. 4):

$$y = b \cdot x + a \rightarrow \hat{y} = b \cdot x + a \quad (6)$$



POSW – Predicted Owner Sheltered Workshops

OSWO – Owner Sheltered Workshops

Fig. 4. Relation between Employer (y) and Predicted Employer (\hat{y}) (own study based on PFRON, 2021, niepełnosprawni.gov.pl/; 10.09.2021)

According to this model, a linear decrease in the number of employers with sheltered employment establishments as compared to growth to employees with disabilities in the commercial labour market was observed (fig. 5).

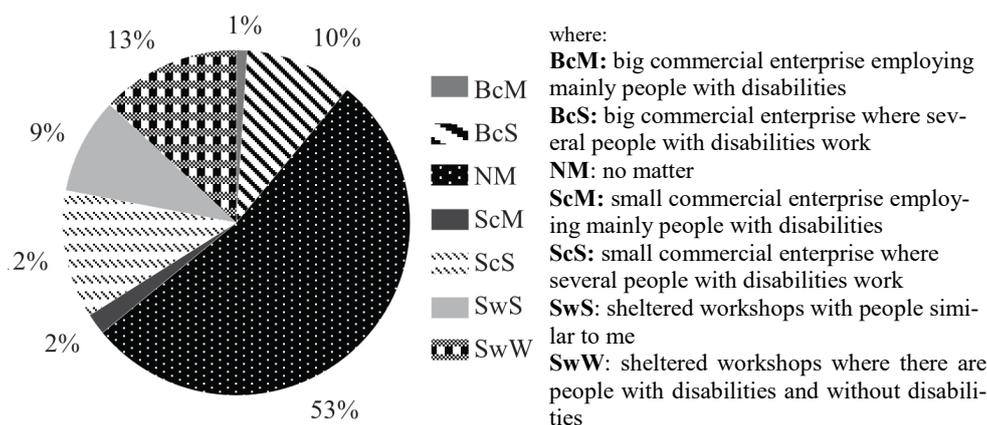


Fig. 5. Results of survey (own study)

The largest group of respondents were people for whom the possibility to be professionally active regardless of the specificity of the workplace is generally the most important parameter (NM: not important 53%). Similar proportions were found for SwW: sheltered workshops, where people with and without disabilities work, and ScS: small commercial enterprise, where several people with disabilities work (13% and 12% respectively). This means that the preferred workplaces are integrated environments where people with and without disabilities work, with the size of the enterprise being important. The share of respondents preferring large commercial companies where people with disabilities find employment was BcS: 10%.

Interesting results were obtained in terms of working only for people with disabilities – a social aspect emerges from the results concerning ScM: small commercial companies employing mainly people with disabilities and BcM: large commercial companies employing mainly people with disabilities (2% and 1% respectively). It appears that people with disabilities are not willing to work in environments that mainly employ people with disabilities.

5. CONCLUSIONS AND OUTLOOK TO FUTURE STUDIES

The study of the economic activity of people with disabilities is undoubtedly a difficult issue. The ambiguous and inconsistent provisions governing assistance in obtaining employment for a person with a disability in the EU countries, as well as the lack of a uniform system of professional activation in the EU adapted to the needs of people with disabilities, as people creating the workforce, may cause divergent values of the percentage share in the presented data summary. In the labour force analysis presented, it is observed that both Portugal and Denmark have one of the highest percentages for this parameter: population (18.5%, 16.9%), employed (12.5%, 9.5%) and inactive (34.1%, 42.5%). An unfavourable for the economy parameter: persons unemployed, in both cases is close to the EU average (16.7%, 17.9%). A detailed analysis of an EU country with an economically strong social impact on the improvement of the well-being of people with disabilities can bring good solutions to implement for other leaders in line with the United Nations Convention on the Rights of Persons with Disabilities (Guide, 2010; Lawson, 2006, p. 563). Thus, it should be defined as the first and main policy challenge to support the employment of people with disabilities in the labour market (Koza, 2013, p. 70-78).

The statistical analysis described in the methodology shows that work in sheltered workshops is becoming less and less attractive form of employment in Poland. This is an answer to the research question. It is also a negation of the research thesis of the article, which describes a sheltered workshop as a major employer of people with disabilities. It can be concluded that the trend is caused on the one hand by systemic regulations regarding labour policy in Poland, and on the other hand, by the desire for social acceptance by persons, such as employees with disabilities, which has been defined as the second major policy challenge in supporting the employment of people with disabilities in the labour market.

The conducted own research, i.e. the questionnaire and the corresponding data analysis, shows that the vast majority of respondents chose workplaces where integration with a non-disabled employee is important. This phenomenon was observed in all three identified groups of employers in the labour market. In turn: large commercial enterprises (10%, 1%), small commercial enterprises (12%, 2%), sheltered workshops (13%, 9%). While about 10% of the benefits on the social inclusion side were observed in commercial enterprises, the result in sheltered workshops is surprising at 4% on the social inclusion side. The importance of this information should be considered as the third of the main policy challenges to support the employment of people with disabilities in the labour market.

The research results presented in this article represent a broad spectrum of issues related to the disability aspect of the labour market. Further direction of the research should include further international data collection reflecting more detailed information on the preferences of economic sectors perceived as attractive by people with

disabilities on the labour market and the evolution of the importance of the research issue. Hence, the research should be extended to include a social impact factor to explore the preferences of people with disabilities when choosing a career path. For this purpose, the MARS (Multivariate Adaptive Regression Spines) method, which is a much more powerful tool than linear regression, and artificial neural networks (ANNs) can be used.

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OSOBY Z NIEPEŁNOSPRAWNOŚCIĄ NA RYNKU PRACY – GŁÓWNE WYZWANIA, PIERWSZE POTRZEBY

Streszczenie

Analiza aktywności zawodowej ludności w wieku produkcyjnym jest zagadnieniem złożonym ze względu na mnogość czynników determinujących to zjawisko, takich jak np. wiek, status materialny, dostępność ofert na rynku pracy dostosowanych do indywidualnych potrzeb pracownika. Osoby z niepełnosprawnościami są niewątpliwie jednymi z najbardziej narażonych na ryzyko wykluczenia społecznego, co wyraźnie wskazuje i podkreśla problematyka podjęta w artykule. Obecna sytuacja gospodarcza w Polsce pozwala osobom z niepełnosprawnościami na podjęcie działalności zawodowej, zwłaszcza w tzw. warunkach pracy chronionej – zakładach pracy chronionej, a także w warunkach pracy otwartej – w przedsiębiorstwach komercyjnych. Wyniki badań prezentowane w artykule mają na celu przybliżenie sytuacji gospodarczej osób z niepełnosprawnościami w Polsce na tle innych krajów UE. Na podstawie wyników badań własnych, przeprowadzonych przy współpracy z organizacją non profit – jednym z najbardziej rozpoznawalnych stowarzyszeń studenckich w Polsce – i dzięki statystykom z poszczególnych krajów UE kolekcjonowanym przez instytucje rządowe, stworzono model umożliwiający prognozowanie zapotrzebowania na

miejsca pracy w obu środowiskach rynkowych. Dostrzeżono bowiem potrzebę osób z niepełnosprawnością zarówno do integracji z osobami pełnosprawnymi, jak i ich niechęć do aktywności zawodowej w zamkniętych środowiskach osób tylko z niepełnosprawnościami i wynikających z tego uwarunkowań społecznych.

Słowa kluczowe: aktywność ekonomiczna, niepełnosprawność, rynek pracy, wpływ społeczny

