

LABOUR MARKET IN POLAND FOR WOMEN AND MEN 50+

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Abstract: Population ageing is one of the major challenges of modern Europe. In this context is worth to assessment the differences in the situation of women and men aged 50+ on the labour market. In the area of interest are primarily people aged 50-59/64, which are at this stage of life in which the situation on the labour market is particularly difficult. Paper was prepared mainly on the basis of the unpublished data developed within the project “Equalisation of Opportunities in the Labour Market for People Aged 50+”. The analysis was conducted with the application of basic descriptive statistics, as well as chi-squared test. Comparing income of women and men aged 50+, t-Student test and median test for independent samples, as well as one- and two-way analysis of variance were used.

Keywords: ageing, economic activity, employment, multivariate statistics

INTRODUCTION

Population ageing is one of the major challenges of modern Europe. This is the effect of both shrinking and ageing of potential labour resources as well as the fact that professional competences of older employees are becoming increasingly outdated. Another thing is that due to the improvement of quality of live, people tend to live longer. Health of the population is improving regardless of their age, also at the threshold of becoming old. These processes should be accompanied by extending the period of economic activity. In this context, very low economic activity of Poles (especially women) nearing retirement is a huge challenge faced by the Polish economy.

This paper compares the overall situation of women and men aged 50+ as well as certain characteristics of this group. In the area of interest are primarily persons aged 50-59/64 which are at the stage of life in which - in accordance with the Act on employment promotion and labour market institutions [2004] - their situation on the labour market is considered to be particularly difficult. This will allow relating the analyses carried out to solutions regarding this group in the context of active labour market policies.

Paper was prepared on the basis of the unpublished data developed within the project "Equalisation of opportunities in the labour market for people aged 50+". Additionally, Eurostat data are used.

DATA AND METHODS

This paper presents mainly the results of the research conducted in the framework "Diagnosis of situation of females and males 50+ on the labour market in Poland" (Diagnosis), within the project "Equalisation of Opportunities in the Labour Market for People Aged 50+" co-financed by the European Union from the European Social Fund. This diagnosis covered among others quantitative component – questionnaire research among 'people aged 45+' (i.e. inhabitants of Poland aged 45-69), realized on representative sample 3,200 persons. As a result of non-proportional sampling, weights were applied. Finally, estimation error is max 1.8%. The research was carried out with the CAPI method.

The analysis was conducted with the application of basic descriptive statistics, as well as chi-squared test and analysis of variance. Chi-squared test will be applied to assess the relations between qualitative variables. When comparing the incomes of men and women aged 50+ t-Student test and median test for independent samples, and two-way analysis of variance factors were also used. As far as the last mentioned method is concerned, less commonly used in socio-economic analyses, it belongs to the multivariate statistics methods [Stockburger 1998; Walesiak i in. 2009; Wuensche 2007; Szymczak 2011]. Multiple analysis of variance is used to see the main and interaction effects of categorical variables on multiple dependent interval variables. For example, two-way analysis of variance model can be expressed as:

$$y_{sri} = \mu + \alpha_s + \beta_r + (\alpha\beta)_{sr} + \varepsilon_{sri}, \quad (1)$$

where: μ - total mean, α_s i β_r – main effects of factors x_A i x_B , $(\alpha\beta)_{sr}$ – interaction effect between x_A i x_B , ε_{sri} – within-group error; $\varepsilon_{sri} \sim N(0, \sigma)$.

In the analysis standard level of significance ($\alpha = 0.05$) was adopted. The calculation was made in SPSS 20.0

ECONOMIC ACTIVITY OF WOMEN AND MEN AGED 50+

Polish people over 50 years of age, as well as people in the entire European Union, are characterized by a relatively low economic activity. In 2012, in the age group 50-64, the economic activity rate reached in the EU-27 an average of about 63%, whereas in the group of 55-64 - less than 53%. Poland is at the bottom of the ranking of economic activity of people aged 50/55-64 among the EU Member States - the economic activity rate of people aged 50-64 reaches about 53%, and compared to 2000 it has increased by 5 percentage points. As far as the group of 55-64 year olds is concerned the increase of this rate is more pronounced - from 31.3% in 2000 to 41.8% in 2012, but still the economic activity of women aged 55-64 is the lowest in Europe. Compared to such countries as Sweden (the economic activity rate of approximately 80% for both age groups) and Germany (approx. 70%), the situation in Poland leaves much to be desired. Compared with other EU Member States only Malta, Hungary and Slovakia have a lower economic activity of older workers [Eurostat, lfsi_act_a, lfsa_argan]. In Poland, as in almost all EU Member States, the economic activity of men is higher than of women - the European Union average economic activity rate of men aged 50-64 years amounts to 71.2%, while of women - 55.7%, and only Finnish women are more economically active than men. The biggest differences in this respect (to the disadvantage of women) can be observed in Malta - the difference is as high as 44 percentage points.

Similar trends were recorded as far as employment of people from these groups of people is concerned - the employment rate was in most countries (with the exception of Finland and Estonia) higher for men than for women, similarly, the biggest difference between men and women was observed in Malta, Cyprus, Greece, Italy and Poland. In Poland, nearly two-thirds of men aged 50-64 are economically active (compared to 40% of women), and every other male in the age group 55-64 (compared to less than 30% of women) [ibidem].

Taking into account the not averaged (used by Eurostat), but the actual upper limit of working age in Poland, an assessment of the economic activity of Poles was made with the use of results from the "Diagnosis of the current situation of women and men aged 50+ in the labour market in Poland" research. Approximately 65% of women and men aged 50-59/64 identified themselves as economically active. Most of them are employed under a contract of employment (mostly for an indefinite period). There is a quite high proportion of retirees among men and women aged 50-59/64. The situation of women is at the same time significantly different (in a statistical sense) from the situation of men - this applies to both the group of 50-59/64 year olds and 45-49 year olds (the situation of women and men aged 60/65 + is, however, not so significantly different). Let us look at features characteristic for older workers, focusing on population aged 50-59/64. In Table 1 typical characteristics of men and women as employees are indicated.

Table 1. Main characteristics of the employed aged 50-59/64 by sex

Specification	Females aged 50-59	Males aged 50-64
property sector	public (46%)	private, Polish capital (51%)
the employer's business profile	trade, repair of motor vehicles (15%), health care and social assistance (14%), education (13%), public administration, national defense, compulsory social security (13%)	industry, mining, metallurgy (23%), construction (22%), transport and storage (17%), trade, repair of motor vehicles (12%)
number of employees	small (37%) and medium (28%)	small (38%) and medium (24%)
employer location	mainly in the place of residence (77%)	slightly more often at the place of residence (58%) than elsewhere
professional position	skilled worker (35%) or specialist (31%)	skilled worker (69%) or specialist (18%)
type of work performed	specialist (21%) or production (average physical workload) (20%)	production (an average physical workload) (31%) or specialist (18%)
type of agreement in the workplace	contract of employment for an indefinite period (79%) or for a specified period (16%)	contract of employment for an indefinite period (78%) or for a specified period (20%)
working time	full-time (89%), part-time (7%)	full-time (97%), part-time (1%)
overtime	35% ; average of 20.4 hours and a median of 10 hours	40%; average of 24.1 hours and a median of 15 hours
seniority	mean - 14.4, median - 12	mean - 13.9, median - 12
the nature of work	max: work in a sitting position (43%), work in a standing position, with low physical workload (34%) min: work requiring a significant physical exertion (1%)	max: work in a standing position, with low physical load (31%), physically demanding work (30%) min: work requiring a significant physical exertion (16%)
reserve of time (farmers)	throughout the year (10%) seasonally (9%)	throughout the year (4%) seasonally (32%)

Source: own elaborations on the basis unpublished materials of "Diagnosis of situation of females and males 50+ on the labour market in Poland" developed within the project *Equalisation of Opportunities in the Labour Market for People Aged 50+*.

It is clear that the conditions of employment of women aged 50+ are in most discussed dimensions slightly different than those of men (Table 1). Women are more likely to work in the public sector than men, in companies involved in trade, education, health and social care and public administration, equally on skilled worker and professional positions, whereas men - mostly in domestic private companies, on skilled worker positions, in industry, construction, transport and materials, and thus women do a lighter work than men. Men commute to work more often than women, they work longer overtime hours, while women work

more often part-time (which is often associated with caring responsibilities towards their parents or grandchildren and is related to the traditional model of the family). It should also be noted that every third male farmer could seasonally work off-farm (in the case of women one in ten could start work off-farm seasonally, also one in ten - throughout the year).

Also a comparison of unemployed men and women points to the varied conditions of their economic activity (Table 2).

Table 2. Main characteristics of the unemployed aged 50-59/64 by sex

Specification	Females aged 50-59	Males aged 50-64
entitled to unemployment benefits	27%	21%
average duration of unemployment	average - 40.9 months median - 17 months	average - 39.3 months median - 24 months
job search by the unemployed	69%	78%

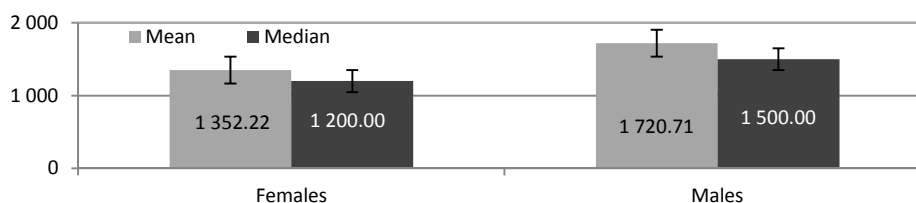
Source: as in Table 1.

Unemployed women aged 50-59 are slightly more likely eligible for unemployment allowance than men aged 50-64. Half of the unemployed women remain unemployed for at least 17 months, half of men - for at least 24 months. Men at the age of 50+ look for work more actively than women from the same age group.

INCOME OF WOMEN AND MEN AGED 50+ IN POLAND

Women and men aged 50-59/64 evaluate their income as the worst. An assessment of the level of remuneration is the factor that differentiates men and women the strongest ($p = 0.065$) - a total of 45% of women are not satisfied with their remuneration (15% of which are definitely of this opinion), among men 36% made such an assessment (10% of which are definitely of this opinion). A comparison of income of men and women seems to explain these differences (Figure 1). On average, women have an income of PLN 1352, and men - PLN 1721. Half of women at their pre-retirement stage of life get an income of no more than PLN 1200, half of men - no more than PLN 1500. These differences are significant in a statistical sense.

Figure 1. Net income of women and men aged 50-59/64*

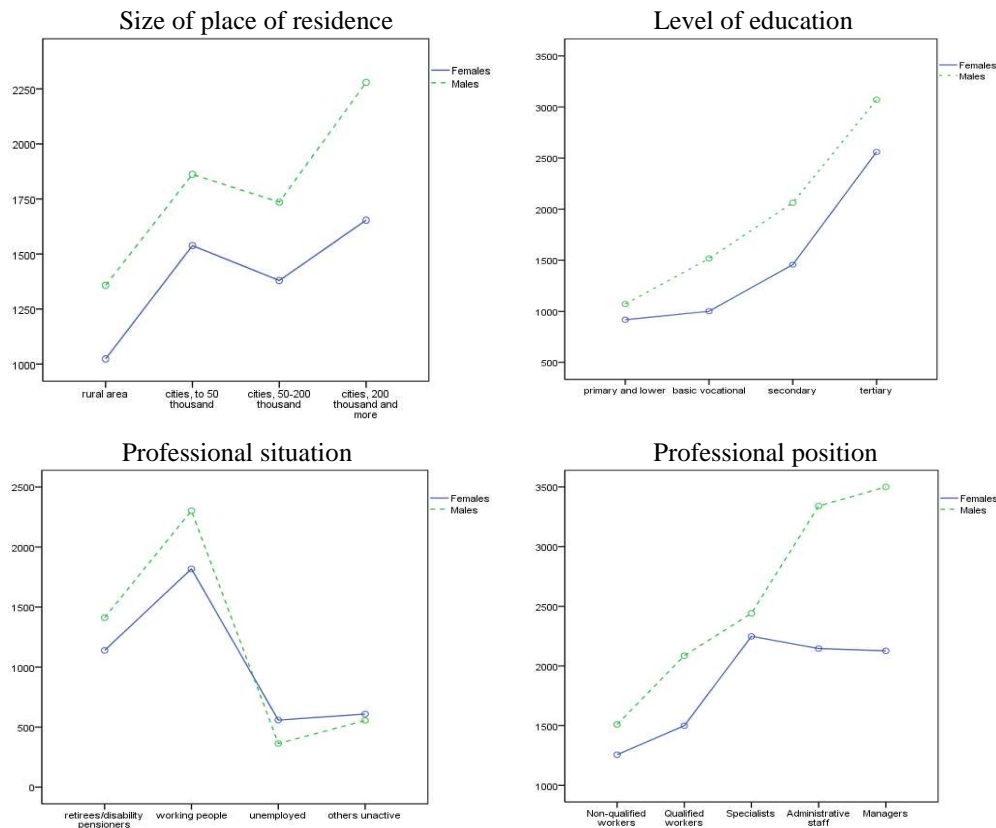


Source: as in Table 1.* for women, n = 552 for men (high non-response rate - 42.3%)

In the t-Student's t test, $p < 0.001$. Similarly, in the median test for independent samples $p < 0.001$. Error bars express a standard error.

The level of income is also determined by other factors - apart from sex (Figure 2).

Figure 2. The average net income by sex and selected characteristics of people aged 50-59/64



Source: as in Table 1.

Figure 2 summarizes the average income studied simultaneously in cross-gender analysis, and one of the other characteristics - place of residence, level of education, professional situation. The analysis was made with the use of two-way analysis of variance. It allowed for a comparison of men and women, assuming a constant level of the second factor (and by analogy, a comparison the sub-population with the assumption of constancy of gender), and the combined inseparable effect of the two factors. After "separating" the effect of gender on the level of income, it is significantly varied by all factors taken here into account (Table 4). Also, incomes are significantly differentiated by gender assuming the constancy of the size of the place of residence, level of education and job.

Table 4. Results of two-way factors analysis of variance

Other factors - specification	Effect (p in test F)		
	sex	other factor	interaction
Size of place of residence	<0.001*	<0.001*	0.575
Level of education	<0.001*	<0.001*	0.213
Professional situation	0.247	<0.001*	0.022*
Professional position	<0.001*	<0.001*	0.028*

Source: as in Tabl. 1.

Taking into account the place of residence, rural residents (of both sexes) have a lower level of income than those living in cities, especially large cities and the smallest towns. The course of these differences for men and women is, however, similar (the interaction effect is not statistically significant). The level of education also shows no statistically significant interaction with gender with respect to the income level. In general, the higher the level of education, the higher the income. While in the case of education not higher than lower secondary, women and men achieve similar income, in next groups, however, differences are greater. The interaction effect is statistically significant for sex and professional situation (and professional position). Working and retired men aged 50+ have a higher income than women, while in the case of the unemployed the situation is opposite (other economically inactive people do not differ by gender). On the other hand, taking into account the position, men and women in the lower professional positions achieve similar income, while managerial and administrative positions are associated with higher income of men than women 50+¹.

FINAL REMARKS

Economic activity of women and men shortly before retiring is low in Poland as well as in other EU Member States for the population aged 50-64 and 55-64 is higher for women than for men. Taking into account the maximum working age set by retirement age, in Poland these proportion converge. About one person in three aged 50-59/64 (and therefore still of working age) remains economically inactive, mainly due to a pension or annuity.

Employment of women aged 50+ is characterized by slightly different characteristics than of men in the same age - women more often than men work in the public sector, trade, health care and social assistance, education and administration, doing work which is lighter physically, often specialized,

¹ A high percentage of non-response to the question about the level of income should be noted. The structure of the sub-samples of which income is known, however, is analogous as far as sex and the professional situation is concerned to the structure of sub-samples for which there is no data on income.

particularly in the place of residence and they less likely suffer accidents at work. Working conditions are more difficult for men than for women, which is a consequence of how the roles of men and women are perceived in our society. What is more, when unemployed men face greater difficulties in finding a new job, although they seek it more actively and are more spatially mobile. They are, however, less likely to re-qualify or improve their skills and qualifications than women, what reduces their adaptability in case of dismissal, especially due to the fact that their education level is significantly lower than that of women in the same age group. Therefore, in a situation of possible retirement or annuity, they take advantage of it even more often than women. On the other hand, after retirement they get another job more often than women - it results from the necessity of taking care of grandchildren, but also elderly parents by women.

Presented picture of the professional situation of women and men aged 50+ in Poland is - due to the high degree of generalization - simplified, however, it allows identifying some regularities characterizing the conditions of women and men in the pre-retirement labour market. Apart from the noted differences, the situation of women and men is similar in many respects - both groups usually work under a contract of employment for an indefinite period, they are burdened with overtime work to a similar extent, they have similar seniority, they retire at a similar age, the assessment of working conditions analogous in both groups. The results of the Diagnosis, however, confirm the disparities in salaries between men and women aged 50-59/64 - even cross their professional situation or position, and according to the respondents, higher salaries as well as flexible working hours and form of work are the most important incentives for extending the period of economic activity. The findings of studies and experiences of the institutions involved in the implementation of actions aimed at the older group of employees clearly indicate that actions aimed at delaying retirement should involve primarily maintaining employment. As can be seen from these studies the principle of gender equality cannot be overlooked in these actions.

REFERENCES

- Act of April 20th, 2004 on Promotion of Employment and Labour Market Institutions, *Dziennik Ustaw* of 2004 No. 99, item 1001 as amended.
- Stockburger D.W. (1998) *Multivariate Statistics: Concepts, Models and Applications*, Missouri State University, on-line version.
- Szymczak W. (2011) *Podstawy statystyki dla psychologów*, Difin, Warszawa.
- Walesiak M., Gatnar E. (2009) *Statystyczna analiza danych z wykorzystaniem programu R*, PWN, Warszawa.
- Wuensche K.E. (2007) *Statistics Lessons*, East Karolina University, Greenville 2007.
- Eurostat, lfsi_act_a, lfsa_argan, 10.04.2013.
- Unpublished data of "Diagnosis of situation of females and males 50+ on the labour market in Poland" developed within the project *Equalisation of Opportunities in the Labour Market for People Aged 50+*.