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An Attempt to Identify Factors Influencing Retirement Decisions in Poland

Abstract: Discussions on how to prevent negative economic consequences of ageing of societies have resulted in the reforms that should prolong labour market participation and postpone retirement of longer living generations. Pension systems are among those reformed most frequently. Also in Poland – since the beginning of economic transformation in the early 1990s – retirement rules have changed many times. Pre-retirement benefits and allowances have been introduced to help those who became unemployed at an older age. Since 2009 early retirement is not possible any more (with some exceptions), the standard retirement age continued to increase since 2013 and then it decreased again in 2017. The aim of the paper is to analyse the driving forces of retirement in Poland. Such knowledge is important to develop proper policies and expectations about labour supply decisions. We have analysed what factors influenced retirement decisions in the last decade, with a special focus on pension system regulations. The main data sources used in this paper are Labour Force Survey (BAEL) data for the years 2005–2016 and the Social Insurance Institution statistics. Probabilities of retirement from the labour force were presented and discussed. Then, individual BAEL data for persons aged 50–74 in the years 2013–2016 were used to estimate logistic regression models of odds of labour market inactivity. The results show that education or health status are significant factors influencing retirement decisions in Poland. Additionally, older workers react to economic incentives for retirement created by the pension system, mainly the retirement age.

Keywords: retirement, labour market, ageing of societies, pension system

JEL: J26, J22

1. Introduction

Ageing population and pressure it creates on social security systems, and more generally on public finance, increased the number of ageing-related projects and policy analyses in the last three decades (see: World Bank, 1994; OECD, 2000; Kula, 2007; Walker, Maltby, 2012; Vogel, Ludwig, Boersch-Supan, 2017). Older workers represent an increasing share of the European labour force and the trend will continue in the future. According to the Eurostat 2015 projections, in the EU–28 Member States the share of people between 50 and 74 in the population aged 20–74 will increase from the current 43 percent to 47 percent in 2050¹. The phenomenon of population ageing in Poland began later than in the majority of Western European countries but its pace is faster. An increase in emigration at the beginning of the 21st century served to worsen the demographic situation even further. Demographic changes that began in the 1990s have been parallel to decreasing labour market participation of older people and social support for early retirement. A low employment ratio at older ages causes additional problems for public finance, a higher fiscal burden for the working population, and – last but not least – professional inactivity at a lower age means human capital loss.

Discussions on how to prevent negative economic consequences of ageing of societies have resulted, among others, in the reforms that aimed at prolonging labour market participation and postponing retirement. Pension systems have been among those reformed most frequently.

In Poland – since the beginning of the economic transformation in the early 1990s – retirement rules have changed several times. The largest pension system for employees and the self-employed, managed by the Social Insurance Institution (ZUS), which covers the vast majority of the working population and retirees (around 80 percent)² was reformed in 1999. The retirement age before the reform was 60 years for women and 65 years for men, with numerous possibilities of earlier retirement (usually at the age of 55/60 respectively) in force until 2008. Since 2009, early retirement is not possible (with several exceptions), and since 2013 the standard retirement age continued increasing. A partial pension was possible for women at the age of 62 and for men at 65 (after an increase of retirement age). The minimum tenure entitling to at least a minimum pension has been also gradually increasing for women from 20 to 25 years. However, in 2017 the regular retirement age again decreased to the previous level (60 for women, 65 for men).

This paper aims to analyse the driving forces of retirement decisions in Poland, including an impact of changes in pension system regulations (mainly the retirement age) on retirement decisions. Knowledge of mechanisms that influenced

¹ Eurostat database, 2016.

² The other two are the pension scheme for farmers and the pension scheme for the armed forces, judges and prosecutors.

retirement decisions in the past is important to develop proper policies and expectations about labour supply of future – longer living – generations.

The research hypotheses are the following:

1. The labour supply of Poles aged 50+ is determined by both individual and institutional factors.
2. Changes in pension system regulations influence retirement decisions.

Individual factors include those related to observable individual characteristics (education, health status, etc.). Institutional factors should be understood as those related to legislation and regulations, mainly of social security systems.

Retirement in this paper will be defined in two ways – either as the age of applying for the pension benefit (influencing expenditures of the social insurance system) or as the age of the withdrawal from the labour market (influencing directly labour supply of older workers).

The structure of the paper is the following: section 2 includes a brief review of the retirement decisions literature. Section 3 describes the data and empirical methods used. Section 4 presents and discusses the results, and the last section presents conclusions.

2. Literature review

Neoclassical labour supply theories are based on the theory of utility and the choice between leisure and consumption (financed from wage). The labour supply decision is based on all information available to an individual. In the multiperiod dynamic models, consumer's utility depends on leisure and consumption during the whole life. Budget constraints depend on incomes and consumption in all periods and on the possibility to lend or borrow (i.e. to reallocate consumption in time). MaCurdy (1981) is one of the first authors that modelled consumption and labour supply in the life-cycle, developing Friedman's (1957) permanent income hypothesis (PIH). However, his general model of the life-cycle labour supply omitted old-age pensions or other social transfers available after reaching a certain age.

The economic literature of the last three decades suggests that different factors may be significant for the labour supply at the last stage of professional career than earlier. They can be divided into two groups: economic factors and non-economic factors. Economic factors include those linked to income from labour and transfers available after the withdrawal from the labour market. Sources and the level of available income depend on social security systems, labour market institutions, and tax regulations. The most often analysed social transfers are old-age pensions (including early retirement pensions) or disability pensions (Gruber, Wise, 1999; 2002; Lumsdaine, Mitchell, 1999; Blöndal, Scarpetta, 1999; Duval, 2003). The parameters that matter in this respect include: the eligibility criteria (the minimum

age or tenure required to be entitled to a pension), the replacement rate, the rate of an increase in the benefit with longer work, and the possibility to combine further (part-time or full-time) work with receiving a pension (Gruber, Wise, 1999).

Publications focused on non-economic reasons for retirement underline the importance of health status (subjective or objective, see e.g.: Bound, 1991; Brugiavini, Pasini, Peracchi, 2008), social and cultural norms, family situation or attitudes towards work versus leisure. Health status might be also correlated with individual preferences for leisure or with the earnings potential of a person making the choice between retirement and further work (Lumsdaine, Mitchell, 1999).

Some authors additionally point to the labour demand factors or working conditions explaining differences in the labour market participation rates between countries. For example, Dal Bianco, Trevisian and Weber (2015) show that working conditions have an important impact on transition from employment to full retirement. Also lifelong learning or effective age management policies in firms could prolong working life in population and are often discussed in making the so-called 'active ageing policy' (Field, Burke, Cooper, 2013; Ervik, Lindén, 2013).

In several past analyses for Poland or Central and Eastern European countries (Kula, Ruzik-Sierdzińska, 2011; Ruzik, 2008), their authors confirmed the importance of individual employment perspective and (dis)incentives to retire early built into social security systems.

As far as labour supply is concerned, countries that experienced an economic transition in the late 1980s or early 1990s were different from Western European countries. The economic transformation to the market economy caused an increase in labour demand elasticity and a decrease in hidden unemployment, which partially became a source of official unemployment and decreased economic activity (Basu, Estrin, Svejnar, 2000). The latter effect was more evident for older persons, who could often take advantage of early retirement or generous disability schemes. Social security programmes for persons from companies undergoing restructuring, similar to early retirement schemes, were widely used to ease social tensions in the 1990s in Poland.

Relatively bad health status of the Polish elderly in comparison to those in Western or Scandinavian Europe and low participation in work-related training and education are also reasons behind decreasing labour market activity already after the age of 50 (OECD, 2015). Other authors (Kotowska, Wóycicka, 2008) pointed to the fact that some women in Poland might retire earlier because of the need to take care of dependents. Kryńska et al. (2013) also underlined preferences of Poles above 45/50 – every second of them wanted to retire as soon as possible, so it seems that the minimum age/tenure requirement should be important for the observed retirement patterns.

Altogether, the literature review shows that the timing of retirement depends on various factors that can help explain differences in labour market activity of population aged 50+ between countries.

3. Data and analytical tools

3.1. Data

The main data sources used in the following analyses were aggregated statistics of the Polish Social Insurance Institution (ZUS) and the Central Statistical Office (GUS) for the years from 2005 to the most recent available, as well as micro data from the Labour Force Survey – LFS (Badanie Aktywności Ekonomicznej Ludności – BAEL).

The LFS is a quarterly survey and collects information on individual characteristics, including the economic activity of individuals aged 15+ living in households. Individual microdata sets from selected waves until the third quarter 2016 were used. The quarterly sample size until 2009 was around 18 thousand households. Since the first quarter of 2010, the LFS sample has been doubled and now the survey covers around 37 thousand households (almost 90 thousand persons aged 15+). In the third quarter of 2016, there were 18727 respondents aged 50+ surveyed.

Aggregated data on contribution payers, the insured and beneficiaries of the social security system managed by the Polish Social Insurance Institution are available at its website and have been used to present changes in the number and age of pensioners applying annually for a pension.

3.2. Analytical tools

After the general description of data on the age of retirement and labour force participation rates at an older age, two methods of in-depth analyses will be used: an analysis of flows of workers, the unemployed and the economically inactive in the labour market as well as a logistic regression model.

The flow analysis is based on information on how many persons that in one period were in one status in the labour market moved to another status in the next period³. Statuses here are defined as employment (usually denoted as *E*), unemployment (*U*) and economic inactivity (*I*). Retirement here will be defined as a flow from activity to inactivity at the age of 50+⁴. For the aim of this paper, we focused on annual flows from activity (i.e. employment or unemployment) in two periods: between 2007 and 2008 (before the withdrawal of early retirement possibilities

³ Measuring and explaining labour flows is rooted in first search and matching models (Mortensen, Pissarides, 1994).

⁴ In this part of the analysis, we disregard the fact that some of those persons can plan to re-enter the labour market later.

and a gradual increase in the standard retirement ages) and between 2013 and 2014 (when relevant reforms of the pension age were already introduced).

Then, for the most recent available data for the third quarter of 2016, we estimated the logistic regression models in the form of:

$$\ln \frac{I}{A} = x^T \beta, \quad (1)$$

where an odds ratio is a ratio of those who are inactive to those still active in the labour market (working or actively looking for a job) and x is a vector of the individual observable characteristics. The dependent variable is binary so it is described by a binomial distribution. Generalised linear models can be used in this case, as binary variables could be modelled using the logistic regression model under certain assumptions (Książek, 2012). This type of models is often used in the analysis of retirement decisions (Adams, Beehr, 2003).

Separate models were estimated for men and women, due to differences in factors influencing economic activity of both genders, e.g.: entitlement rules in the pension system or elasticity of labour supply.

4. Results

Labour Force Survey data show that participation of older people in the labour market in Poland has been increasing in the last decade. The largest increase occurred in the age group 55–64: the labour force participation rate increased by almost 19 p.p. for women and 16 p.p. for men between 2006 and 2016.

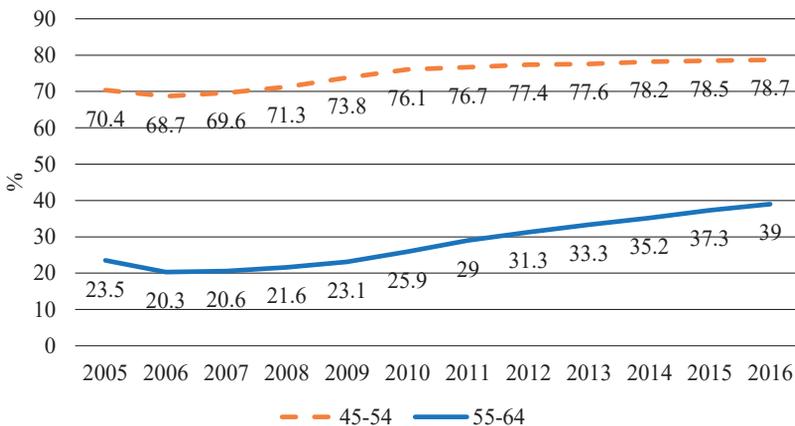


Figure 1. Labour force participation rate in Poland in the years 2005–2016 by age groups – women

Source: own presentation based on LFS data

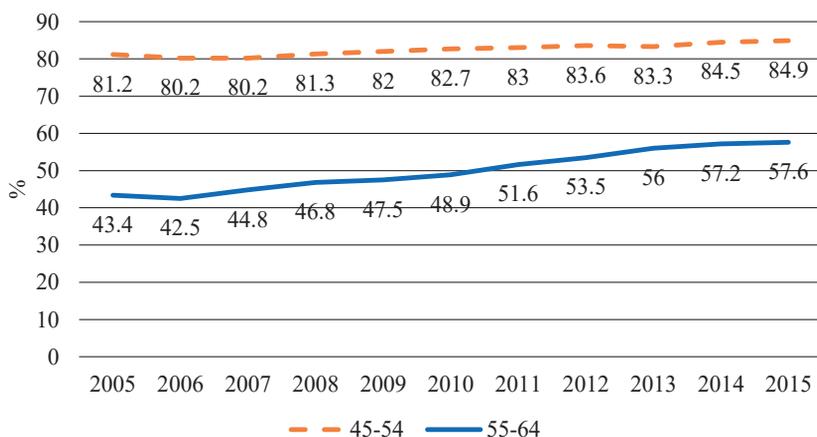


Figure 2. Labour force participation rate in Poland in the years 2005–2016 by age groups – men
 Source: own presentation based on LFS data

The trend of early withdrawal from the labour market by women in Poland was particularly strong, so the initial LFPR in this age group was very low. On the other hand, female activity in the 55–64 age group increased relatively more. The results discussed below present some explanation of the general trend observable in the last decade.

4.1. Age of withdrawal from the labour market

The Social Insurance Institution (ZUS) provides information on how many persons receive pensions and on the average age of the new pensioners, i.e. those who received their first pension benefit. The hypothesis was that changes in regulations influenced behaviour of the insured applying for pensions.

The average age of the old-age pensioner receiving his/her first pension in the ZUS administered pension system increased from 56.8 years in 2005 to 60.4 years in 2014. Men were on average 61 years old at the moment of receiving their first pension in 2014 and women were 59.8 years old. That could be mainly the effect of the withdrawal of early retirement at the beginning of 2009 that affected women’s options to retire more than men’s. Figure 3 shows that a lot of people retired in the last two years before planned changes in regulations.



Figure 3. Annual inflows of new pensioners in the Polish pension system in the years 2005–2014
Source: ZUS data

Those who wanted to retire at 55 (women) or 60 (men) needed to apply for their pension by the end of 2008. After protests organised by trade unions, early retirement remained possible for miners, who are almost all men.

After changes in legislation, a significant increase in the dominant retirement ages can be identified. They were calculated based on LFS data and the number of those who were first active and then inactive and retired one year later. Here we omit those pensioners (included in the ZUS statistics) that were granted an old-age pension but continued to work. Figures 4 and 5 show the number of new pensioners that apply for a benefit and become inactive in the labour market in a given year by age.

The first retirement peak for females in 2008 occurred at the age of 55, at which a woman with at least 30 years of service could use an option of early retirement (Figure 4). Another peak – but much lower – was at the normal female retirement age of 60 years. In the case of men, their official retirement age was 65, but the number of applications for pensions was the highest at 60. It was caused by the early retirement possibilities 5 years before the official retirement age, mainly for the industry employees.

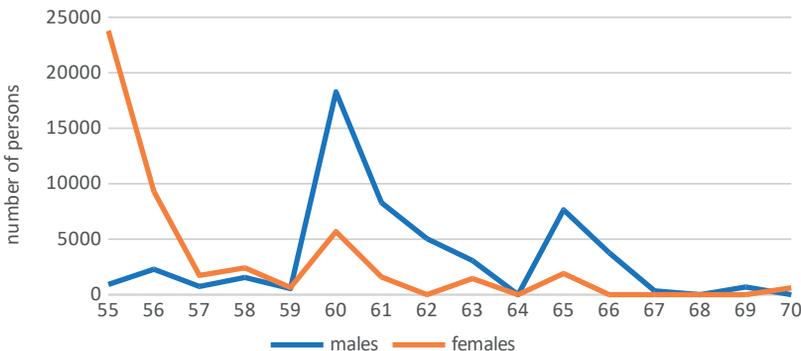


Figure 4. Number of persons that became inactive due to retirement by age, 3q2007–3q2008
Source: author’s calculations on LFS individual data, no men retired at the age of 64

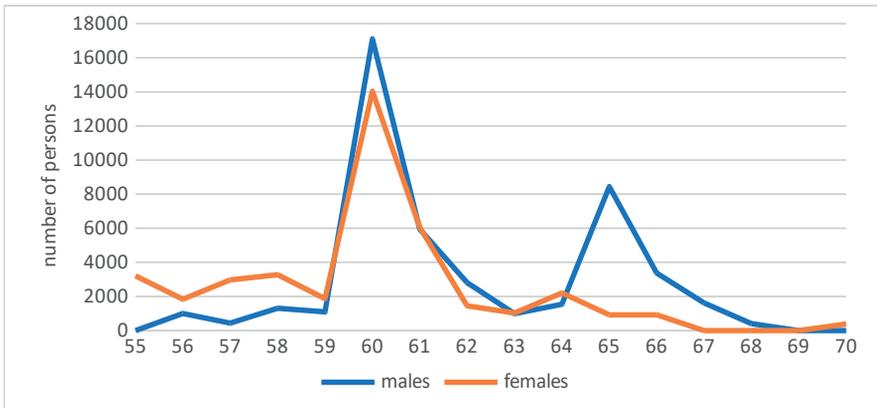


Figure 5. Number of persons that became inactive due to retirement by age, 3q2013–3q2014

Source: author's calculations on LFS individual data

The situation changed several years later. In particular, almost no women retired at 55, i.e. the most popular age in the period before legal changes. The years 2013/2014 presented in Figure 5 is also the period of a gradual increase in the standard retirement age but its effect has not been visible in data yet. The large number of men retiring at the age of 60 is a result of the main exception in the early retirement reform. Miners were excluded from the reform and it is still possible for them to retire before the age of 65. One can argue that in the absence of the reform some people would postpone retirement, but instead they decided to retire earlier, before a major institutional change. So eligibility rules matter, especially when expected changes limit future options to choose the retirement age.

4.2. Flows in the labour market

Changes in the LFPR described at the beginning of this section show a significant increase in the labour market activity in the last decade. The beginning of the analysed period was a time of the economic crisis, resulting, among others, in a higher unemployment rate of the young, but the crisis did not deteriorate the situation of older workers. Additional analyses below provide an insight into causes of an increase in employment (or a decrease in inactivity) in older age groups.

The analysis of flows in the labour market shows the dynamics of this market before changes of retirement age and afterwards. Using micro LFS data from the years 2008 and 2014, we analysed changes in the labour market status of population aged 50+. Tables 1 and 2 present probabilities of flows between the states separately for men and women by age groups.

Table 1. Probabilities* of annual flows from activity to *E* (employment), *U* (unemployment) or *I* (inactivity) between 3q 2007 and 3q 2008

Males		LM status in 2008			Females		LM status in 2008		
LM status in 2007	<i>E</i>	<i>U</i>	<i>I</i>	LM status in 2007	<i>E</i>	<i>U</i>	<i>I</i>		
65+ years				65+ years					
<i>E</i>	0.86	0	0.14	<i>E</i>	0.92	0	0.08		
<i>U</i>	0.22	0	0.78	<i>U</i>	no unemployed				
60–64 years				60–64 years					
<i>E</i>	0.84	0	0.15	<i>E</i>	0.92	0	0.08		
<i>U</i>	0.20	0.15	0.65	<i>U</i>	0.19	0.12	0.69		
55–59 years				55–59 years					
<i>E</i>	0.96	0.01	0.03	<i>E</i>	0.87	0.1	0.12		
<i>U</i>	0.25	0.34	0.42	<i>U</i>	0.17	0.15	0.69		
50–54 years				50–54 years					
<i>E</i>	0.96	0.02	0.02	<i>E</i>	0.95	0.01	0.04		
<i>U</i>	0.33	0.26	0.41	<i>U</i>	0.20	0.31	0.49		

* Probability here is defined as a ratio of those who changed the status in the labour market relative to the number of people in the initial stage before this change.

Source: own calculations on LFS individual data

Table 2. Probabilities of annual flows from activity to *E* (employment), *U* (unemployment) or *I* (inactivity) between 3q 2013 and 3q 2014

Males		LM status in 2014			Females		LM status in 2014		
LM status in 2013	<i>E</i>	<i>U</i>	<i>I</i>	LM status in 2013	<i>E</i>	<i>U</i>	<i>I</i>		
65+ years				65+ years					
<i>E</i>	0.89	0	0.11	<i>E</i>	0.92	0	0.08		
<i>U</i>	0.13	0	0.87	<i>U</i>	0	0	1		
60–64 years				60–64 years					
<i>E</i>	0.92	0.01	0.07	<i>E</i>	0.88	0	0.12		
<i>U</i>	0.10	0.26	0.64	<i>U</i>	0.04	0.18	0.78		
55–59 years				55–59 years					
<i>E</i>	0.96	0.02	0.02	<i>E</i>	0.94	0.01	0.05		
<i>U</i>	0.18	0.43	0.39	<i>U</i>	0.09	0.29	0.62		
50–54 years				50–54 years					
<i>E</i>	0.98	0.01	0.01	<i>E</i>	0.97	0.01	0.02		
<i>U</i>	0.23	0.46	0.31	<i>U</i>	0.20	0.33	0.47		

Source: own calculations on LFS individual data

The above-presented flows indicate that in the years 2013/2014 the probability of staying in employment among men aged 60–64 and women below 64 increased in comparison to the situation in the years 2007/2008. The highest frequency of outflow from employment to retirement moved up: from the group 55–59 to 60–64 for women and from 60–64 to 65+ for men.

Except for the oldest group (65+), the estimated probability of the flow from activity to inactivity was higher for women. That can be explained by the still lower female retirement age in the analysed period, providing pension income earlier and creating an additional incentive to leave the labour market.

Unemployment in the analysed groups is a persistent state – in both analysed years the unemployed aged 50–59 had much lower likelihood to find work than to remain in unemployment or to become inactive one year later. Additionally, being unemployed increases chances of flows to inactivity in comparison to the employed, especially in older age groups. The fact that there were no unemployed females aged 65+ observed in 2008 suggests that before the reform by this age all females reached the minimum tenure and age to retire.

As the flow analysis is based on LFS data and on the labour market status reported by the surveyed respondents, the number of the inactive is not the same as the number of those receiving pensions. Some workers can combine labour market activity with receiving a pension benefit.

4.3. Model of the status in the labour market

An important part of the analysis is the model of inactivity of population aged 50 and more described in Section 3.2. The set of the explanatory variables was chosen on the basis of literature review and availability of information in the LFS. They included:

1. *Age groups*: 50–54, 55–59, 60–65, and 65+ years. The legal retirement age is a prerequisite for receiving an old-age pension, a pre-retirement allowance or a pre-retirement benefit⁵, and a longer tenure increases an old-age pension benefit.
2. *Tenure* – a binary variable equals 1 if a person had a tenure equal to at least the number of contributory years needed for a minimum pension and 0 otherwise. In Poland, men with 25 years of insurance period and women with 20 years⁶ are entitled to a minimum pension even if their social insurance contributions were not high enough. We expect that a longer tenure decreases likelihood of economic activity as it ensures a minimum level of benefits.
3. The highest obtained level of formal *education* in 4 groups: primary and below, vocational, secondary, tertiary. Models explaining the timing of retirement often include the level of formal education. They show that longer for-

⁵ Pre-retirement allowance and benefit are social security transfers for people with a relatively long tenure that were not yet entitled to an old-age pension and became unemployed due to e.g.: bankruptcy of their employer. Pre-retirement benefits and allowances were introduced in the 1990s to help those who became unemployed at an older age but then their availability was lowered.

⁶ The 2013 reform included a gradual increase in the minimum tenure.

mal education usually leads to later retirement. There are several explanations of this effect: a higher level of education often means higher expected earnings and lower chances of unemployment, better health, and higher general job satisfaction.

4. *Disability*, approximation of the health status available in the LFS, the variable has value 1 if a person is formally recognised as the disabled and 0 otherwise, apart from the indication of the worse health status, the formal disability means that a person usually is entitled to a disability pension;
5. *Place of living*: 1 for the countryside, 0 for town and city inhabitants.
6. Frequencies for all the explanatory variables can be found in the Appendix.

The reference group was: tertiary education, 50–54 years age group, persons with a tenure shorter than 20 (women)/25 (men) years, without disability and living in a town or a city.

Detailed results of model estimations are presented in the Appendix.

Age was the strongest single factor explaining inactivity and it denoted in our analysis the impact of the minimum retirement age requirement. Odds of inactivity increase with age, for women already at a younger age than for men.

The education level was another important predictor of inactivity at the age of 50+ in the described period. People with primary education had much higher chances than those with tertiary education to be inactive, *ceteris paribus*. This finding is similar to that of studies for other OECD countries. Thus, better education of younger generations improves their chances of good employment and longer activity, and for generations retiring in the past education acquired before the economic transition was not such an advantage.

Disability increases chances of inactivity, which can be the effect of two forces – the worse health status and access to disability benefits. If someone receives a disability pension and earns more than 70 percent of an average wage, a pension is reduced and it is discontinued when earnings exceed 130 percent of an average.

As far as the place of living is concerned, it was not a significant explanatory variable for women, and living in the countryside only slightly decreased odds of inactivity for men.

It turns out that a tenure does not influence activity in the way that was expected. Both women and men with a longer tenure had lower chances to be inactive. That result could mean that those who want to leave the labour market early do it just after reaching the retirement age, even if a short tenure ensures a low benefit.

5. Conclusions

The aim of this paper was to verify hypotheses about labour supply of Poles aged 50+ and their retirement decisions. The study confirmed that both individual (e.g.: education) and institutional factors (the legal retirement age) influence labour supply at an older age. Standard statistical and econometric tools were used for new datasets for the analysis of the problem not well examined in Poland.

The analyses presented in this study show that changes in the pension system regulations introduced in 2009 and 2013 changed retirement decisions of Poles. Social Insurance Institution (ZUS) data show that a huge majority of pensioners apply for old-age benefits at the lowest possible retirement age. The withdrawal of early retirement possibility in 2009 moved the average age at which people retire up. The minimum tenure requirement seems less important in Poland, at least for cohorts retiring in 2016. The results of the logistic regression model suggest that what matters for the termination of work – apart from age – is mainly: bad health (disability) and lower education.

Applying for the pension benefit does not always mean the withdrawal from economic activity. Some pensioners still work. It seems that the formal retirement age is more important for the decisions on when to apply for an old-age benefit than for the labour supply decisions, although it also has an impact on postponing or expediting the exit from the labour force. Many changes in the social security system increase uncertainty about future rules in the pension system. Before 2008, it was rational to retire early as an increase in the benefit resulting from continued work was small. The foreseen changes in legislation made people retire early to avoid a lack of such an option in the future. Based on these findings, one can predict that any policies decreasing the legal retirement age will decrease labour supply at an older age. Our results are based on data from the period 2005–2016 but are applicable for future policy making. In October 2017, the retirement age was lowered. When we know that this parameter of the pension system was important for labour supply in many countries (including Poland, as confirmed by this paper), we can expect that labour supply will decrease. Again, an increase in the legal retirement age in the future will be necessary to increase the share of active part of the population in the face of ongoing ageing of societies.

Finally, the analysis of the flows in the labour market shows that the unemployed aged 50+ have higher chances of flows to inactivity in comparison with the employed. Based on this result, we conclude that an active labour market policy should especially focus on the older unemployed.

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Appendix

Table A1. Model of inactivity – males

	B	St. Error	Wald	df	Sign.	Exp(B)
education			235.915	3	0.000	
secondary	0.764	0.088	76.116	1	0.000	2.147
vocational	1.115	0.086	168.451	1	0.000	3.050
primary and below	1.500	0.105	203.745	1	0.000	4.480
tenure_M	-2.428	0.061	1609.151	1	0.000	0.088
Age			2723.235	3	0.000	
55–59 years	0.782	0.091	74.666	1	0.000	2.186
60–64 years	2.454	0.091	732.397	1	0.000	11.631
65+ years	4.264	0.094	2068.656	1	0.000	71.088
countryside	-0.096	0.058	2.751	1	0.097	0.908
disability	1.818	0.075	582.955	1	0.000	6.160
Constant	-1.733	0.105	273.784	1	0.000	0.177
N	14797					

Source: own calculations

Table A2. Model of inactivity – females

	B	St. Error	Wald	df	Sign.	Exp(B)
education			260.704	3	0.000	
secondary	0.678	0.076	79.114	1	0.000	1.970
vocational	1.111	0.086	167.651	1	0.000	3.036
primary and below	1.460	0.099	219.679	1	0.000	4.307
tenure_M			2693.620	3	0.000	
Age	1.114	0.075	218.002	1	0.000	3.048
55–59 years	3.009	0.081	1374.325	1	0.000	20.260
60–64 years	4.157	0.092	2045.655	1	0.000	63.890
65+ years	0.036	0.058	0.390	1	0.532	1.037
countryside	1.431	0.088	263.096	1	0.000	4.181
disability	-2.533	0.058	1901.862	1	0.000	0.079
Constant	-0.914	0.093	96.778	1	0.000	0.401
N	19165					

Source: own calculations

Table A3. The structure of the sample used to estimate the model

		Females	Males
Education	tertiary	14%	13%
	secondary	35%	27%
	vocational	21%	39%
	primary and below	30%	21%
Age	50–54 years	14%	15%
	55–59 years	17%	19%
	60–64 years	19%	20%
	65+ years	51%	45%
Place of living	town, city	62%	58%
	countryside	38%	42%
Tenure	below min.	67%	52%
	over min.	33%	48%
Disability	no disability	84%	79%
	with disability	16%	21%

Source: own calculations

Próba identyfikacji czynników wpływających na przechodzenie na emeryturę w Polsce

Streszczenie: Badania naukowe i dyskusje praktyków o negatywnych konsekwencjach starzenia się ludności zaowocowały reformami mającymi wydłużyć aktywność na rynku pracy przyszłych pokoleń, które będą żyły dłużej niż pokolenia poprzednie. Najczęściej reformowano systemy emerytalne. W Polsce od transformacji gospodarczej, czyli od początku lat dziewięćdziesiątych XX w., reguły emerytalne były zmieniane wielokrotnie. Wprowadzono zasiłki i świadczenia przedemerytalne skierowane do osób, które straciły pracę w starszym wieku. W 2009 r. zlikwidowano wcześniejsze emerytury (z kilkoma wyjątkami), od 2013 roku rósł wiek emerytalny, który w roku 2017 obniżono do poprzedniego poziomu. Celem artykułu jest analiza czynników mających wpływ na przechodzenie na emeryturę w Polsce. Wiedza na ten temat jest ważna dla tworzenia i wdrażania odpowiedniej polityki, a także dla prognozowania zmian przyszłej podaży pracy. Zbadano, jakie czynniki i w jakim stopniu wpływały na decyzje emerytalne Polaków w ostatniej dekadzie, ze szczególnym uwzględnieniem rozwiązań systemu emerytalnego. Do analiz wykorzystano przede wszystkim dane Badania Aktywności Ekonomicznej Ludności (BAEL) dla lat 2005–2016 oraz statystyki Zakładu Ubezpieczeń Społecznych. Policzone i przedyskutowano prawdopodobieństwo odpływu z zasobów pracy. Dodatkowo, na podstawie indywidualnych danych BAEL z lat 2013–2016 dla osób w wieku 50–74 lata, oszacowano modele regresji logistycznej szans bycia biernym zawodowo. W artykule pokazano, że na decyzje emerytalne w Polsce wpływa m.in. wykształcenie i stan zdrowia. Co więcej, zachowania starszych osób na rynku pracy zależą od zachęt ekonomicznych stwarzanych przez system emerytalny, w tym zwłaszcza od obowiązującego wieku emerytalnego.

Słowa kluczowe: przejście na emeryturę, rynek pracy, starzenie się ludności, system emerytalny

JEL: J26, J22

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