

THE IMPACT OF SUSTAINABLE WORK ON WOMEN'S EMPLOYMENT BEYOND THE STATUTORY RETIREMENT AGE

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Purpose: Gender inequality in public pensions and cultural norms stimulate earlier labor market exit among women, resulting in reduced pension benefits. To mitigate those risks, we formulate a question: how can factors of sustainable work improve women's employment beyond the statutory retirement age under gender inequality in the public pension system?

Design/methodology/approach: We use Polish labor market data. We selected a sample of women who were beyond the statutory retirement age (min. 61 years old) and stayed still active in the labor market. Using a semiparametric Cox model, we examined the risk factors of the stop working.

Findings: We show that the risk of discontinuing employment beyond the statutory retirement age was lower not only among women whose earnings were higher than the average retirement benefit, but also among women who performed work consistent with their education, and whose jobs provided opportunities for professional training.

Originality/value: This study identifies the factors of sustainable work quality and organization characteristics that affect the risk of work discontinuation among women beyond the statutory retirement age.

Keywords: Employment; pension system; statutory retirement age; sustainable work; gender inequality; semiparametric models.

Category of the paper: Research paper.

1. Introduction

The currently observed change in the age structure of Europeans requires greater involvement of older people in the labor market (Van Dalen, Henkens, 2005; Hoven et al., 2018; Kluge, Goldstein, Vogt, 2019), in particular women, whose working life is generally shorter than that of men (Klaesson, Lopez, Öner, 2018). However, the involvement in and continuation of work for a longer period for older people requires certain living and working conditions to be met (Barakovic Husic et al., 2020). Providing sustainable work which

conditions “support people in engaging and remaining in work throughout an extended working life” (Eurofound, 2015, 2021) addresses this challenge of reducing the risk of workforce withdrawal.

Anxo, Ericson, and Herbert (2019) pointed out that strong predictors of the continuation of work beyond the statutory retirement age as good health, high educational attainment, high-skilled jobs, good psychosocial work environment, self-employment status, personality traits, and industrial sectors. Whereas the too-early withdrawal from the labor market observed among women may result from gender inequality in both – the employment place and the public pension system (Vara, 2013; Vigtel, 2018; Seibold, 2021). We suppose that providing sustainable working conditions can improve the late career stage and thus can extend women's working lives. Therefore, the key research question posed in this study can be formulated as “How can factors of sustainable work improve women’s employment beyond the statutory retirement age under gender inequality in the public pension system?”

In this study, we focus on Poland, an interesting country to study older women's employment for two reasons. First, Poland is one of the few countries in Europe with a statutory retirement age that is still gender-differentiated. Currently, women in Poland become eligible for a pension upon reaching 60 years of age, while men need to work five years longer to achieve the statutory retirement age. The second reason why we are considering Poland is that it is one of the EU countries with the largest gender differences in the duration of working life (Eurostat, 2023). When combined with women’s longer life expectancy, these two facts cause a lower pension benefit for women in Poland, where publicly provided pensions account for the main share of retirement income. Using the Cox model with time-dependent and time-independent variables and data from the Polish Labour Force Survey (LFS) which contains extensive and detailed information on the labor market status of individuals, we aim to identify the work-related risk factors for work discontinuation for women beyond the statutory retirement age.

To address the research question, theoretical underpinnings concerning gender inequities determined by women's employment and the pension system were first presented, along with the concept of sustainable work. Following the establishment of the theoretical background, the research design and analysis method were introduced. Their application allowed for the presentation of the characteristics of the studied population and the results of two semiparametric Cox models related to work quality and organizational characteristics, which assess the risk of women ceasing work upon reaching retirement age. The obtained results are discussed in the context of other authors' findings. The discussion concludes by outlining the limitations and directions for future research.

2. Theoretical background

2.1. Gender differences in public pension system and late employment

Gender inequality in the labor market is the consequence of several factors and it most notably relates to institutional settings and cultural norms (Magda, Cukrowska-Torzewska, 2019). Women generally have lower pay and are rarely found in the highest level occupation, which affects their income and prospect pension benefits (Zhao R., Zhao Y., 2018). Parada-Contzen (2022) showed that, especially in the case of women, life cycle events such as marriage or childbirth negatively influence the accumulated retirement savings. In Poland, when determining the amount of pension benefit in the public pension system, career continuity, the value of individual contributions, and life expectancy are of primary importance (Czech, Zachorowska-Mazurkiewicz, 2020). Polish women work shorter, live longer, and stay on parental leave for a significant part of their lives. As a consequence, they pay lower contributions, which ultimately affects the amount of the pension they receive (Chłoń-Domińczak, 2010, 2021).

Providing women with working conditions that will encourage them to voluntarily remain in employment for longer can help them avoid the consequences of gender inequalities in the labor market and in public pension systems. The beneficial interactions of working and living conditions, which are favorable for workers to engage with and stay in work throughout an extended period fit the sustainable work concept (Eurofound, 2015, 2021). Therefore, according to this concept, we will perform an analysis of the factors affecting the risk of discontinuation of work by women beyond the statutory retirement age.

2.2. Sustainable work for women beyond the statutory retirement age

Sustainable work, from the perspective of a person, is a long-term adaptive and proactive ability of workers, which is expressed by creating, testing, and maintaining the ability to work despite the passage of years (De Lange, Kooij, Van der Heijden, 2015; Kira, Eijnatten, Balkin, 2010; Kooij, 2015). Next to ability is a willingness to participate in the labor force (Van den Elsen, Vermeeren 2020). Although, as van der Van der Klink and colleagues (2016) point out, individual employees' willingness and ability alone are not sufficient, thus organizational conditions and social policies are essential for activating older women in the labor market.

Successful aging at work (Zacher, 2015) from a sustainability perspective is aimed at the maintenance of workers' health, motivation, and working capacity or ability now and in the future (Kooij, 2015; De Lange, Kooij, Van der Heijden, 2015). Moreover, organizational practices, such as an age-supportive environment, enable older workers to express their work engagement and commitment (Van Dam, van Vuuren, Kemp, 2017) while continuing to work despite reaching the statutory retirement age.

Over time researchers have identified and evaluated the sustainable work concept (Eurofound, 2015, 2021; Virtanen, Ervasti, Ropponen, 2018; Eiffe, 2019). The Eurofound (2015) concept of sustainable work consists of three categories of factors: 1) characteristics of the job as earnings, prospects, intrinsic job quality, and working time quality, 2) characteristics and circumstances of the individual which determine their availability for work (e.g., health, skills, motivation), and 3) policies, regulations, and practices which support institutions, companies, jobs, and individuals.

Based on research on the employment of older people, within the first group of factors, i.e. the work quality group, the following factors are analyzed most frequently: the type of employment contract (Skučiene, Moskvina, 2016; Kotowska, Chłoń-Domińczak, Holzer-Żelażewska, 2019), working time (Wahrendorf et al., 2017), shift work (Gobeski, Beehr, 2009), workplace location (Błędowski et al., 2012; Klaesson, Lopez, Öner, 2018; Zitikytè, 2019), managerial position (Maestas, 2010; Özdemir et al., 2016; Wahrendorf et al., 2017; Kotowska, Chłoń-Domińczak, Holzer-Żelażewska, 2019; Zitikytè, 2019;), earnings (Bielawska, 2019; Wahrendorf et al., 2017; Anxo, Ericson, Herbert, 2019; Zitikytè, 2019), job-education fit (Kooij, 2015; Sonnega et al., 2017), participation in training (Maxin, Deller, 2010; Skučiene, Moskvina, 2016; Bielawska, 2019), and having individual professional development program (Armstrong-Stassen, Ursel, 2009; Maxin, Deller, 2010). The second group of factors concerns organizational characteristics and typically includes the employer's sector (Zitikytè, 2019), the employer's industry (Kotowska, Chłoń-Domińczak, Holzer-Żelażewska, 2019; Maestas, 2010), and the size of the employer's company (Docherty, Kira, Shani, 2009; Maxin, Deller, 2010).

Thus, we aim to examine the abovementioned factors composed of 1) work quality and 2) organizational characteristics that provide women with the opportunity to sustain resources and remain employed throughout extended working life.

3. Methods

This study uses data obtained from the 2018-2019 LFS for Poland. In line with the purpose of the study, we considered women who were between the ages of 61 and 75 in 2018 and gave a positive answer to the following question: "During the week in question, Monday through Sunday, did you do any work for at least one hour that generated income or earnings, or did you assist on an unpaid basis in a family business?". Moreover, in the present study, we considered only women who were employed in a public entity or by a private employer. In the LFS surveys conducted in 2018, 595 women met the criteria of our study. Women's employment was verified based on the subsequent surveys conducted in 2019. Out of the pre-selected 595 women, 560 of them participated in the subsequent follow-up wave of the survey; thus, only these women could be included in the study. It was found that at the

time of the last observation, 22.14 percent of the women had already stopped working. Most of them (77.42 percent) had retired while a further 8 percent had been made redundant by their employer or their contract had ended. The others had stopped working for other reasons. The characteristics of the working women used in the analysis are presented in Table 1.

Table 1.
Sample characteristics

Variable	Categories	Percent
Age	61-62 years old	42.86
	63-65 years old	31.96
	66-75 years old	25.18
Education	Bachelor's, engineering, or master's degree or higher	31.79
	Post-secondary vocational and secondary vocational	35.53
	General secondary	8.04
	Basic vocational	12.85
	Middle school, primary, or incomplete primary	11.79
Size of the locality of residence	City with a population of 100,000 or more	55.71
	City with a population of 20,000-100,000	17.14
	Town with a population below 20,000	11.79
	Village	15.36
Weekly working time	Up to 19 hours	15.00
	20-39 hours	31.79
	40 hours and more	53.21
Employer's sector	Public	51.25
	Private	48.75
Type of employment contract	Permanent, indefinite period	73.04
	Fixed-term	26.96
Shift work	Yes	15.89
	No	84.11
Managerial position	Yes	20.71
	No	79.29
Net monthly earnings	Up to 320 Euro (PLN 1500)	13.04
	320-532 Euro (PLN 1500-2500)	15.89
	532 Euro (PLN 2500) or more	11.78
	No data	59.29
Employer's industry (accord. to COBA)	Wholesale and retail trade; repair of motor vehicles and motorcycles; transport, warehouse management	10.36
	Manufacturing; generation and supply of electricity, gas and water, water supply; sewerage, waste, and remediation activities; construction	13.03
	Health care and social assistance	20.36
	Education	15.00
	Public administration and national defence; compulsory social security	11.79
	Other	29.46
Workplace location	Municipality inhabited by the respondent	84.29
	Other location	15.71
Size of the employer's company	Up to 10 people	19.46
	10 people or more	80.54
Education-occupation matching	Work is fully or highly fit	58.75
	Work is partly fit	12.68
	Work is highly unfit or completely unfit	28.57
Participation in training within the last 4 weeks	Yes	4.64
	No	95.36
Being included in an individual professional development program	Yes	13.93
	No	75.71
	"I don't know" or not applicable	10.36

Source: own calculation based on data from Labour Force Survey 2018, Poland.

The values of the dependent variable “time” for women who worked throughout the study period were determined as the difference between the time of the last survey and the time of the first available survey for that woman. In contrast, for women who had discontinued employment at the time of the last survey or earlier, we calculated the difference between the time of discontinuation and the time of the first available survey for that woman.

To assess the effect of work-related characteristics on women’s employment beyond the statutory retirement age, semiparametric models were used (Cox, 1975).

4. Results

4.1. Work quality

Considering the sustainable work quality characteristics, we found that the risk of discontinuing employment beyond the statutory retirement age depends on the type of employment contract, workplace location, net monthly earnings, job fit with education, participation in training, and individual professional development plans (details in Table 2).

Analyzing the type of employment contract, we found that women with a permanent, indefinite contract had a 66.2 percent higher risk of discontinuing the employment relationship than women with a fixed-term contract.

Another factor influencing employment beyond the statutory retirement age was whether the institution or company where the woman worked was located in the same municipality as where she lived. It was observed that the place of work in the municipality where the woman lived had a negative impact on the continuation of work. Women working and living in the same municipality had a 61.9 percent higher risk of discontinuing employment than other women.

Women’s earnings also had an impact on decisions to stay in employment; women earning 320 Euros net (which is equivalent to the average pension) or more per month were less likely to transition to non-employment than women earning less than 320 Euros. Women earning between 320 Euros and 532 Euros had a 48.6 percent lower risk of discontinuing their employment relationship than women earning less than 320 Euros. In the case of higher earnings, their impact on the discontinuing of work was smaller.

Furthermore, we also found that women whose work was fully or highly fit with their education had a 41.1 percent lower risk of discontinuing work compared to women whose work was highly or fully incompatible with their education. A similar result was obtained in the case of work that was partially compatible with a woman's education, also compared to jobs that were highly or completely incompatible with a woman’s education.

Another important factor influencing employment was participation in training. Women who had participated in training in the past four weeks had a 77.1 percent lower risk of discontinuing their employment than nonparticipating women. Lack of information about the individual professional development program had a greater impact on termination of employment than its absence alone.

In addition, it was observed that factors such as the number of working hours per week, shift work, and holding managerial positions did not significantly impact the risk of stopping work of women beyond the statutory retirement age.

Table 2.

Estimated parameters, standard error, p-value, and hazard ratio – work quality characteristics

Covariate	Parameter estimate	Standard error	p-value	Hazard ratio*
Type of employment contract (<i>ref. Fixed-term</i>)				
Permanent, indefinite period	0.508	0.220	0.021	1.662
Weekly working time (<i>ref. 40 hours and more</i>)				
Up to 19 hours	-0.246	0.299	0.410	0.782
20-39 hours	0.032	0.199	0.872	1.033
Shift work (<i>ref. Yes</i>)				
No	-0.128	0.230	0.577	0.880
Workplace location (<i>ref. Other location</i>)				
Municipality inhabited by the respondent	0.482	0.272	0.077	1.619
Managerial position (<i>ref. No</i>)				
Yes	-0.031	0.233	0.895	0.970
Net monthly earnings (<i>ref. Up to 320 Euro</i>)				
320-532 Euro	-0.666	0.353	0.060	0.514
532 Euro and more	-0.364	0.368	0.323	0.695
No data	-0.096	0.272	0.724	0.909
Job-education fit (<i>ref. Work is highly unfitted or completely unfitted</i>)				
Work is fully or highly fitted	-0.529	0.197	0.007	0.589
Work is partly fitted	-0.725	0.327	0.027	0.484
Participation in training within the last 4 weeks (<i>ref. No</i>)				
Yes	-1.474	0.762	0.053	0.229
Being included in an individual professional development plan (<i>ref. No</i>)				
Yes	-0.038	0.282	0.894	0.936
"I don't know" or not applicable	0.637	0.294	0.030	1.891

*Note: If HR>1, then the impact of the analyzed category is positive, when HR<1, the impact of the category is negative, compared to the reference category. The results describe this impact with percent.

Source: own calculation based on data from Labour Force Survey 2018, Poland.

4.2. Organization characteristics

The second model which includes organization characteristics of sustainable work shows how employment in different sectors, industries, and employer sizes affected the discontinuation of work of older women in Poland (details in Table 3). It was found that women whose main workplace was a public sector employer had an 80.4 percent higher risk of moving from working to non-working status in the first nine months than women whose main workplace

was a private company. In the subsequent months, the effect of this factor on the duration of women's labor force participation during this period was no longer statistically significant.

The duration of the employment relationship was also influenced by the industry (Classification of Business Activities (COBA)) of the institution or company that was the main workplace of the respondents. Women employed outside of health care and social assistance, regardless of the sector, had a higher risk of transitioning to the non-working status. Women who worked in wholesale and retail trade, repair of motor vehicles, including motorbikes; transport and storage, and those working in education were approximately 108 percent more likely to terminate their employment than women employed in the health care and social assistance sectors. For women working in manufacturing; electricity, gas and water supply, water distribution; sewage, waste management, remediation; and construction, this risk was 84.3 percent higher, also compared to women employed in the health care and social assistance sectors. Being employed in public administration, national defense, and compulsory social security did not have a significant impact on the termination of the employment relationship.

Women working in an institution or company with fewer than ten employees had a 34.7 percent lower risk of discontinuing their employment than women who worked in institutions with ten or more employees.

Table 3.

Estimated parameters, standard error, p-value, and hazard ratio – organizational characteristics

Covariate	Parameter estimate	Standard error	p-value	Hazard ratio*
Employer's sector 1 (<i>ref. Private</i>)				
Public	0.590	0.264	0.026	1.804
Employer's sector 2 (<i>ref. Private</i>)				
Public	-0.447	0.332	0.177	0.639
Employer's industry (accord. to COBA) (<i>ref. Health care and social assistance</i>)				
Wholesale and retail trade; repair of motor vehicles and motorcycles; transport, warehouse management	0.733	0.359	0.041	2.082
Manufacturing; generation and supply of electricity, gas and water, water supply; sewerage, waste, and remediation activities; construction	0.612	0.343	0.075	1.843
Education	0.735	0.284	0.010	2.086
Public administration and national defense; compulsory social security	0.028	0.362	0.937	1.029
Other	0.490	0.301	0.103	1.632
Size of the employer's company (<i>ref. 10 people and more</i>)				
Up to 10 people	-0.425	0.255	0.095	0.653

*Note: If $HR > 1$, then the impact of the analyzed category is positive, when $HR < 1$, the impact of the category is negative, compared to the reference category. The results describe this impact with percent.

Source: own calculation based on data from Labour Force Survey 2018, Poland.

5. Discussion

In this paper, we focused on the issue of extending women's working lives using the sustainable work concept (Docherty, Kira, Shani, 2009; Eurofond, 2015, 2021; Kooij, 2015; Virtanen, Ervasti, Ropponen, 2018; Van den Elsen, Vermeeren, 2020). Our results show that despite gender discrimination in both employment and the public pension system, work can be continued after the statutory retirement age for women as a result of selected sustainable work factors that represent work qualities and characteristics of the employing organization.

Firstly, the main finding is that sustainable work factors discouraging women from quitting the labor market are: recent participation in training, earnings similar to the average pension, job fitted to education, employment in micro-size organizations, and the health care and social assistance industry.

People at retirement age declare an interest in jobs that provide opportunities for personal development as well as sharing their knowledge (Maxin, Deller, 2010). Our results showed that women who had recently participated in the training had a significantly lower risk of leaving their employment than other women. The more frequent participation in pieces of training allows one to develop skills that are necessary for work and that keep employability for a longer period, which in turn lowers gender inequity at the late career stage.

Women's work after the statutory retirement age can be the result of the economic necessity to provide a source of additional income (Pleau, 2010). We found that wages higher than the average pension in Poland can be an incentive for Polish women to continue working. This result is in line with the concept of sustainable work, which should be productive and financially rewarding for them.

According to our study, the key factor limiting the risk of discontinuing employment is the job-education fit, which, according to the concept of sustainable work, strengthens employability (Kooij, 2015), and increases the satisfaction of older workers (Rauvola et al., 2020).

Due to organization characteristics by size, women working in micro-enterprises had a lower risk of discontinuing their employment than women who worked in larger companies or institutions. Our result is in line with previous research by Maxin and Deller (2010) and confirms that closer and more direct relations are an important factor influencing the continuation of employment after reaching the statutory retirement age. Moreover, the obtained results confirmed that women employed outside of health care and social assistance, regardless of the industry, have a higher risk of transitioning to a non-working status.

Secondly, contrary to our assumptions that withdrawal from work among women beyond the statutory retirement age is reduced by sustainable work factors such as having an agreed developmental plan in the organization, working locally, and being employed based on a permanent work contract, as well as in the public sector, the research outcomes revealed opposite tendency.

A forward-looking approach to the career development of women beyond the statutory retirement age reflected in agreements with employers on professional development plans was not found to be influential on the continuation of work, similarly as in Armstrong-Stassen and Ursel's results (2009). According to the concept of sustainable work, job security plays an important role for a female employee (Villosio et al., 2008). Therefore, having a contract for an indefinite period, as more secure, should be conducive to extending working life. However, our results reveal that having a permanent contract increases the risk of discontinuing employment.

Commuting long from work to home is time and cost-burdening. It reduces the available time for rest or for effective work which makes employment less sustainable. However, it was found that a workplace in a municipality where a woman lived had a negative impact on the continuation of work after reaching retirement age.

According to Zitikyte (2019) women working in the public sector have a lower risk of stopping work than women working in the private sector. We found that women whose main workplace was in the public sector had a higher risk of transition from working to non-working status than women whose main workplace was a private institution. This is in line with the findings of the study on Swedish elders (Sacco et al., 2022) that showed that shifting from the public to the private sector improves job satisfaction and it suggests that in Poland the concept of sustainable work is implemented to a greater extent in private organizations than in public ones.

Thirdly, in the estimation of the risk of withdrawal from work among women beyond the statutory retirement age in Poland, the findings for factors perceived as sustainable for work, i.e. a part-time job, non-shift work, and managerial positions, are not conclusive.

Sustainable work leads to a voluntary extension of one's working life. Therefore, creating public policies that support sustainable work and implementing them in workplaces would help to break gender inequalities in the public pension system and provide older female workers with conditions that allow them to continue meaningful, productive, and satisfying work.

6. Limitations and further research

Due to the low labor force participation of Polish people after reaching retirement age, one of the challenges of our study was to obtain the largest possible research sample. The last round of this survey was conducted in Poland in 2019 and 2020 and covered approximately 6000 Poles aged 50+, while the LFS survey used in this paper covers 28,000-30,000 quarterly respondents in the corresponding age group. Using the latter data source in this study allowed us to include a much larger number of women in the analysis. The LFS, however, has some limitations in terms of traceability as it is carried out on a quarterly rotational basis. Therefore, we could analyze the labor force participation of women after retirement age from only a short-term perspective. However, taking into account the fact that it is carried out quarterly, we can steadily and continuously monitor the process of changes in the economic activity of older people.

We believe that identifying and analyzing sustainable work determinants influencing the continuation of work at retirement age in cyclical studies of the labor market and economic activity provides added value. The use of the Labor Force Survey allows for secondary analysis of publicly available data and the development of the sustainable work concept. This direction of change can be seen in the latest round of the European Working Conditions Survey, which uses the concept of sustainable work in its analyses (Eurofound, 2021). Therefore, further research should be aimed at testing the concept of sustainable work in other surveyed populations of the Labor Force Survey, e.g., the self-employed, people in managerial roles, and young people at the beginning of their professional careers, as well as older people.

Research that takes into account the variables between the micro and mezzo levels is worth repeating, especially because of the challenges of implementing sustainable work in organizations. Another worthwhile analysis is the macro level, especially public policies on sustainable work as a creator of labor force participation (Skučiene, Moskvina, 2016). I-deals studies (Bal et al., 2011; Jonsson et al., 2021) from two different employment policy regimes, show different results, which leads to the supposition of the importance of the wider social and legal context in shaping the sustainable work model in the labor market.

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