

Challenges and Opportunities of Postretirement Employment and Its Impact on Perceived Well-being among Intersectional Groups of Older Workers: A UK Perspective

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Summary:

This research examines unique experiences of people in their retirement age in relation to A) their propensity to work beyond retirement and B) potential impact of postretirement employment on their perceived well-being, in various “intersectional” groups defined by their demographic and socio-economic characteristics.

Understanding unique postretirement experiences among such intersectional groups is an under-researched area and is crucial in supporting and empowering people to work during the postretirement period in an aging society. Gender will be used as one of the key variables to investigate its effects on the two research topics raised above.

This research aims to address the following questions:

- What individual-level variables best predict *postretirement employment*.
- What individual-level variables best predict older workers' *well-being* in their postretirement employment.

Analysing a large UK secondary data, this research aims to further understand the complex nature of postretirement work and their unique experiences among intersectional groups of older workers.

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1. Introduction

As people live longer in general, a gradual rise in retirement age has been introduced. This is to alleviate the growing dependency of retired people on society (Fisher et al. 2016a; Lain 2017) and has resulted in a greater number of older people remaining as part of the labour force. In the United Kingdom, over the past 10 years from 2012 to 2022¹, percentages of 50 to 64 and 65+ years old people in employment gradually increased from 65.5% to 71.0% and from 8.7% to 10.5%, respectively (ONS 2023). People in the UK are currently entitled to claim their state pensions at the age of 66, but it is set to increase to 67 by 2029 and to 68 between 2037 and 2039 (Hickey 2022a).

Furthermore, due to the rising cost of living and the high inflation, some people had no choice but tapping into their private pension pots prior to their retirement, covering their day-to-day expenses (Hickey 2022a). The high living costs have forced some people ready for retirement to stay in employment in order to mitigate the living crisis (Hickey 2022b).

As more and more older people stay in employment, there is an increasing need to redefine what retirement means in society (Lain 2017). The challenge is to find out how to integrate older workers into the labour force, whilst empowering them to fulfil their fuller working life (Lain 2017), rather than forcing them to stay in employment by rising retirement age (Moen et al. 2016).

Scholars have looked into older workers' experiences with postretirement employment, however, there is still the need to examine unique experiences of old workers in various "intersectional" groups defined by their demographic and socio-economic characteristics (Beehr and Bennett 2015; Edge et al. 2021). Furthermore, research on how postretirement employment might influence their well-being is scarce (Fisher et al. 2016). Therefore, this research aims to address the following research questions, using a large national secondary dataset in the UK:

- What individual-level variables (main and interactions) best predict *postretirement employment*.
- What individual-level variables (main and interactions) best predict older workers' *well-being* in their postretirement employment.

2. Literature Review

Factors Impacting Workers' Postretirement Employment

Researchers have identified several factors which may encourage or force people to continue to work beyond retirement.

Individual Level Factors

Demographic variables of workers appear to influence their decisions to continue to work beyond retirement. For example, female workers compared with their male counterparts are less likely to continue to work beyond pension age due to caring responsibilities (Edge et al. 2021) and childcare-related career breaks (Lain and Vickerstaff 2014). Those workers with higher educational achievements are more likely to continue to work after their pension age

¹ January to March in both years.

(Lain 2017; Pleau and Shauman 2013). Financial necessity (e.g. paying for mortgage, utility bills) is also found to be an important reason for people to stay in employment after their retirement age (Fasbender et al. 2016; Lain 2017).

Ill health is associated with higher probability of being out of employment among older workers (Edge et al. 2021; Hagger-Johnson et al. 2017; Murray et al. 2016; Lain 2017; Stafford et al. 2017). Likewise, mental health conditions experienced prior to retirement (childhood and adulthood) also seem to negatively impact their postretirement employment among old-aged workers (Clark et al. 2017; Stafford et al. 2017). Greater stress at work is also linked to earlier retirement (Carr et al. 2016). Interestingly, a study found that those older workers with health conditions still stayed in employment if they had higher educational qualifications probably because they tend to have non-manual jobs which do not require physical stamina (Lain 2017).

Work-Related Factors

Besides, work-related factors also play key roles in influencing older workers' postretirement employment. Job roles were found to impact their decision to work after retirement age where people in managerial and professional roles are more likely to continue to work than those who are in manual/ elementary roles (Virtanen et al. 2017). Greater work control and autonomy seem to be associated with the continuation in older workers' employment (Carr et al. 2016). For example, having greater control over when to work (Moen et al. 2017; Virtanen et al. 2017), how long they work (Lain 2017), and where to work (Moen et al. 2017) were associated with the higher probability of working beyond the pension age. Conversely, lack of support at work negatively impacts their ability to continue to work beyond retirement.

Factors Impacting Workers' Postretirement Well-Being

It was also found that postretirement work could potentially enhance one's *well-being* through social engagement, continuous development of skills, and the ability to earn money, delaying the use of their retirement benefits (Berkman et al. 2015). Several factors which might enhance employee well-being were found by Warr (2007), including personal control, opportunity for skill use, externally generated goals, supportive managers, and career outlook. A greater degree of freedom and autonomy at work were also found to increase old workers' well-being (Edge et al. 2021). However, further research is necessary in this area to better understand if/how postretirement employment would influence old workers' perceived well-being (Fisher et al. 2016).

Research Gaps

Whilst some researchers have explored postretirement employment experiences among different groups of workers based on their demographic characteristics such as gender, health condition, and qualification, the majority of previous studies treated their research sample as a homogeneous cohort of 'older workers' (Moen et al. 2016; Phillipson 2019).

Though some researchers compared postretirement employment experiences among those demographic and socio-economic groups, they tend to analyse main effects of these variables (e.g. gender AND ethnicity) without examining how combinations or intersections of these

variables (e.g. gender BY ethnicity) would impact their postretirement experiences (Beehr and Bennett 2015; Edge et al. 2021).

The term, ‘intersectionality’ attempts to “*capture both the structural and dynamic consequences of the interaction between two or more forms of discrimination or systems of subordination. It specifically addresses the manner in which racism, patriarchy, economic disadvantages and other discriminatory systems contribute to create layers of inequality that structures the relative positions of women and men, races and other groups*” (United Nations 2000). Thus, intersectionality offers theoretical means to compare complex and unique experiences among heterogeneous groups of people (Atewologun 2018). Challenges and opportunities of postretirement employment for older workers are complex and multifaceted, and these experiences can vary greatly across different intersectional groups, highlighting the importance of considering intersectionality when examining post-retirement employment and well-being. In particular, ‘gender’ has been identified as one of the key variables whose main and interaction effects deserve further investigations (Beehr and Bennett 2015; Jyrkinen 2014). “Ethnicity” (Centre for Ageing Better 2022) and “socio-economic class” (e.g. Lain 2016; Jyrkinen 2014; Virtanen et al. 2017) are two other under-researched variables in relation to postretirement work experiences.

This developmental paper will form intersectional groups of people based on the first key demographic variable, “gender” and other relevant demographic variables (i.e. long-term health issues and marital status), focusing on the first research question, “*What individual-level variables (main and interactions) best predict postretirement employment*”.

An overall hypothesis is:

H1: There is a statistically significant relationship between “gender” and respondents’ propensity to be in employment.

This paper will present only the initial part of research outcomes, and further research will be conducted. New research findings will be presented at the conference in September 2023.

3. Methodology

Dataset

The Annual Population Survey (APS) was selected as the data source for the current research. The APS is the largest household survey in the UK, based on approximately 320,000 individual respondents (ONS 2012). The survey captures a wide range of topics including respondents' demographic variables (e.g. age, sex, marital status, ethnicity, education, region), household characteristics (e.g. household structure, role within the household), economic status, employment activities (e.g. employment status, type of occupations, work locations, working hours), health, and income (ONS 2022). Thus, the survey dataset was found to be most pertinent owing to relevant variables available from the survey and its wide coverage in the UK.

Sample

This study focuses on those respondents aged between 55 and 75 from the dataset. Though the current state pension age is at 66, inclusion of workers aged 55 who can start to access their private pensions will allow potentially useful comparisons between pre- and post-state-

pension groups. Based on the most recent APS dataset (July 2021 - June 2022, at the time of writing), some 75,000 respondents were found within this age range. Therefore, this subset of the dataset will form the sample for this research.

Variables & Analysis

The research in this developmental paper will conduct exploratory data analyses to understand the relationship between postretirement employment (i.e. working beyond the retirement age or not) and independent variables as listed below.

Variables utilised in this developmental paper are listed below (all variables are available from the dataset):

Dependent Variable

- In employment (Yes/ No)

Independent Variables

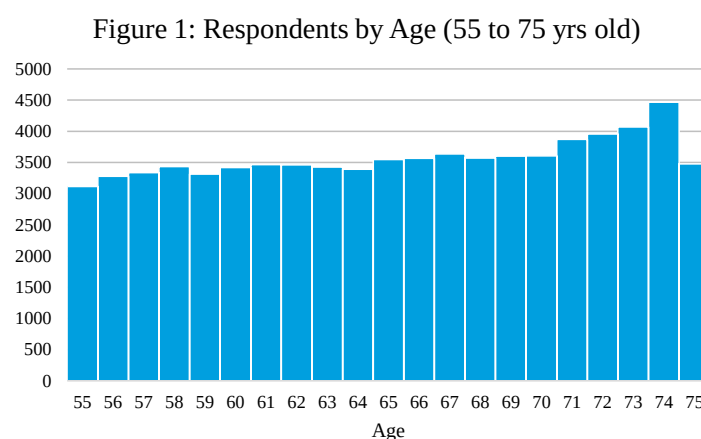
- Gender
- Ethnicity (i.e. Asian, Black, White, and Other)
- Long-term health issues (Yes/ No)
- Marital status (“Married/ Cohabiting/ Civil partnerships” OR “Unmarried”)

Based on findings derived from initial analyses, it is proposed that the binary² and multinomial³ logistic regression analyses be conducted. The analyses will measure unique contributions of main and interaction effects of variables to the model.

4. Preliminary Findings

Descriptive Analysis

There were 75,023 respondents aged between 55 and 75, and there were 3,000 to 4,500 respondents within each age, forming a uniform distribution (Figure 1).



² "In postretirement employment or not"

³ Three to four levels of well-being satisfaction instead of 11 levels

The following sections focus on respondents in their state pension age (66 to 75 years old) in relation to their propensity to work beyond retirement.

When broken down by employment status, 12.9% of respondents in pensionable age (66 to 75 years old) were in employment with the large majority (86.9%) being ‘Inactive’ (Table 1). Few respondents (0.2%) were looking for jobs (‘ILO employment’).

Table 1: Respondents (66 to 75 years old) by Employment Status

Employment Status	Respondents	
	n	%
In employment	4,869	12.9
ILO unemployed	85	0.2
Inactive	32,871	86.9
Total	37,825	100

A series of chi-square tests were conducted, identifying the following key patterns (Table 2)⁴:

- More males (16.0%) were in employment compared with females (10.0%) and that similarly high proportions of males (84.0%) and females (90.0%) were ‘Not in employment’⁵, suggesting that males were 1.6 times more likely to be in employment.
- At least three in four older people (74.5% to 87.3%) were not in employment across the four ethnic groups. However, people from the Asian, Black and other ethnic backgrounds were 1.4, 2.0 and 1.6 times more likely to be in employment compared with White people, respectively⁶.
- People without prolonged health conditions were 1.6 times more likely to be in employment (17.5%) than those with health conditions (10.9%)⁷.
- Whether they “married/ co-habiting/ in civil partnerships” or “non-married”, similarly high proportions of older people are not in employment (86.7% and 88.1%, respectively)⁸.

⁴ For these tests, “ILO unemployed” and “Inactive” were combined as “Not in employment” to meet the data assumption for chi-square tests.

⁵ $\chi^2(1) = 295.478, p < .001, \text{Phi} = -.088$

⁶ $\chi^2(3) = 54.934, p < .001, \text{Cramer's } V = .038$

⁷ $\chi^2(1) = 237.510, p < .001, \text{Phi} = .094$

⁸ $\chi^2(1) = 11.220, p < .001, \text{Phi} = -.017$

Table 2: Crosstabulation: Employment Status and Respondents' Sex, Ethnic Group, Marital Status and Health Condition

		N			%	
		In employment	Not in employment	Total	In employment	Not in employment
Sex of Respondents	Male	2,894	15,243	18,137	15.96	84.04
	Female	1,975	17,713	19,688	10.03	89.97
	Total	4,869	32,956	37,825	0.13	0.87
Ethnic groups	White	4,651	32,057	36,708	12.7	87.3
	Asian	115	537	652	17.6	82.4
	Black	48	140	188	25.5	74.5
	Other	53	205	258	20.5	79.5
	Total	4,867	32,939	37,806	12.9	87.1
Marital Status	Married/ Cohabiting/ Civil Partner	3,602	23,619	27,221	13.2	86.8
	Non married	1,267	9,337	10,604	11.9	88.1
	Total	4,869	32,956	37,825	0.1	0.9
Health problems lasting or expected to last more than 1 year	Yes	1,800	14,700	16,500	10.9	89.1
	No	1,832	8,649	10,481	17.5	82.5
	Total	3,632	23,349	26,981	13.5	86.5

Regression Analysis

The logistic regression was conducted to measure contributions of the selected independent variables discussed above in predicting the binary outcome of 'In employment' and 'Not in employment'. The model was based on the same cohort of people (66 to 75 years old) in the UK. "Marital status" was removed from the model due to its very small effect size based on the chi-square test above.

The first model includes four predictors without the interaction term between gender and the independent variables (other than ethnic group), and the second model includes the same predictors with the interaction term between gender and the ethnic group variable. Statistical outputs for the first model are presented in Table 3, and the second model in Table 4.

The first model indicates that all predictors included made statistically significant contributions to the model⁹ (Table 3). Generally, among the cohort, it was observed that:

- Female respondents had lower odds of being in employment ($Exp(B) = .531$).
- Asian $Exp(B) = 1.25$, Black ($Exp(B) = 1.535$), Other ($Exp(B) = 1.397$) all had greater odds of being in employment compared with White respondents.

⁹ $R^2 = .019$ (Cox & Snell R Square) .035 (Nagelkerke). Model: $\chi^2(5) = 513.966$, $p < .001$.

- Those with long-term illness had lower odds of being employment compared with the healthier counterpart ($Exp(B) = .568$).

Those outputs above from the regression model generally support the findings made by the bivariate statistical analyses in the previous section.

Table 3: Statistical Outputs (without the interaction term)

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Sex of respondent (Baseline: Male)	-0.562	0.037	236.492	1	<.001	0.57	0.531	0.612
Ethnic groups			45.337	3	<.001			
Ethnic groups (White & Asian)	0.452	0.117	15.017	1	<.001	1.571	1.25	1.975
Ethnic groups (White & Black)	0.825	0.203	16.599	1	<.001	2.283	1.535	3.395
Ethnic groups (White & Other)	0.678	0.175	14.944	1	<.001	1.971	1.397	2.779
Health problems lasting or expected to last more than 1 year (Baseline: 'No')	-0.565	0.036	245.152	1	<.001	0.568	0.529	0.61
Constant	-1.301	0.031	1803.79	1	0	0.272		

$R^2 = .019$ (Cox & Snell R Square). $.035$ (Nagelkerke). Model: $\chi^2(5) = 513.966, p < .001$.

Outputs from the second model with the interaction term is presented in Table 3. The interaction term is based on respondents' sex and their long-term health condition. The new model¹⁰ offers little improvement compared with the previous model. In fact, the contribution of the interaction term was not statistically significant ($p = .785$). This suggests that regardless of respondents' biological sex, older people without long-term illness are more likely to be in employment compared with their counterparts with health issues.

¹⁰ $R^2 = .019$ (Cox & Snell R Square). $.035$ (Nagelkerke). Model: $\chi^2(6) = 514.041, p < .001$.

Table 3: Statistical Outputs (with the interaction term)

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for	
							Lower	Upper
Sex of respondent (Baseline: Male)	-0.552	0.052	111.832	1	<.001	0.576	0.52	0.638
Ethnic groups (Baseline: White)			45.355	3	<.001			
Ethnic groups (Asian)	0.452	0.117	15.007	1	<.001	1.571	1.25	1.975
Ethnic groups (Black)	0.826	0.203	16.617	1	<.001	2.284	1.535	3.397
Ethnic groups (Other)	0.679	0.175	14.954	1	<.001	1.971	1.397	2.78
Health problems lasting or expected to last more than 1 year (Baseline: 'No')	-0.557	0.047	137.852	1	<.001	0.573	0.522	0.629
Health problems AND Respondents' Sex	-0.02	0.073	0.074	1	0.785	0.98	0.849	1.131
Constant	-1.305	0.035	1410.492	1	0	0.271		

$R^2 = .019$ (Cox & Snell *R Square*). $.035$ (Nagelkerke). Model: $\chi^2(6) = 514.041, p < .001$.

The chi-square test and the two preliminary models support the hypothesis that there is a statistically significant relationship between gender and older people's propensity to work after their retirement age.

Future Analysis

Further analysis will be conducted to refine the current model thereby including other predictors and interaction terms. Revised outputs will be presented at the conference.

Furthermore, if any regression model yields high predictive scores, it can be used as a model for supervised machine learning. New data can be fed through to the model, predicting people's postretirement employment and/or their perceived well-being. The model might possibly be proposed as a practical tool for policy makers.

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