

Predictors of early retirement in British civil servants

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Abstract

Background: it is uncertain how recent changes in labour force dynamics may have influenced the increasing numbers of people taking early retirement in industrialized countries. The Whitehall II study provides an opportunity to examine the predictors of early retirement in one of the largest employers in the United Kingdom.

Methods: we examined the factors predicting early retirement in a 7-year follow-up period from 1988 to 1995 using longitudinal data on 2532 male and female London-based civil servants aged between 50 and 59.5 years. Baseline data on employment grade and duration of time working for the Civil Service were obtained from self-completed questionnaires. The primary factors examined included health, work characteristics, questions about job demands and job satisfaction and financial insecurity, wealth and material problems. Time until early retirement was analysed using Cox proportional hazards model.

Results: of the 2532 civil servants, 26.7% retired early during the follow-up period. We found that men and women in the higher-paid employment grades, those that had suffered from ill health and those that were less satisfied with their jobs were more likely to retire early, whereas material problems tended to keep people working.

Conclusions: our results show that self-perceived health, employment grade and job satisfaction are all independent predictors of early retirement. Qualitative analyses may further advance our understanding of the retirement process.

Keywords: *early retirement, financial status, health, longitudinal study, work characteristics*

Introduction

In the United Kingdom the number of people in retirement is increasing, as more people retire early from work, and life expectancy lengthens. Currently, there is no national statutory retirement age in the UK, although the ages that the state pension is distributed (60 years for women and 65 years for men) have become the usual ages at which people retire from work [1].

The age of retirement is decreasing due to downsizing and restructuring of organizations, and this is reflected in the labour force participation rates of older age groups [2–4]. Among 55–59-year-old men, the labour force participation rate has fallen from 95.7% in 1965 to 81.6% in 1985 [5]. More recently, the proportion of men aged between 60 and 64 years in employment has continued to decline from 50.3% in 1988/89 to 43.3% in 1994 [6]. In contrast, the number of working women for the same age group has increased during this period [7].

In 1998, a survey performed by the Income Data Services found that in the previous 12 months 70% of people in the UK retired before reaching the age of 60 [8].

Predictors of early retirement are difficult to examine in the age groups currently retiring as the definition and boundaries of retirement are ill-defined and unstable [3]. People have no expectations of what to expect of this lengthening youthful period of retirement [9]. Retirement now is so different to that of their parents that people have few role models.

Previous studies of predictors of early retirement

Most previous research that examined predictors of early retirement has limitations as it was carried out on cross-sectional and retrospective data [10–13], and few studies include women [13]. The advantages of using longitudinal study designs have been recognized because

the decision to retire early is not a purely singular voluntary action. An earlier review of longitudinal studies which examined predictors of retirement [13] found the most significant predictors of early retirement were self-rated health and attitudes to retirement. However, other recent studies have found predictors of early retirement to include health, finance and attitudes to work [14, 15].

Health

Poor health used to be given as the main reason for early retirement from work [16, 17]. Healthier people have been found to continue working, and retire later [18, 19]. Poor self-perceived health has also been associated with early retirement [15]. However, poor health is no longer given as the singular primary reason for taking early retirement. It is frequently combined with other factors [13, 19]. The association between work and health is close: Hayward [20] found that changing occupational roles during mid-career can have long-term effects operating through the onset of health problems.

Finance

The decision whether to take early retirement is frequently associated with a person's perceived financial situation in retirement [19, 21, 22]. In many countries people rely upon an occupational pension or a state pension (or both) when they retire, although an individual's financial situation also depends upon their accumulated wealth. Satisfaction with current pay, usually closely related to future pensions, has been associated with perceived post-retirement 'comfort' [18, 23]. Indirect measures of financial security were used by Henekens and Tazelaar [17], who found that early retirement was reliant upon the number of dependants. Recently many countries have begun to curtail the cost of early retirement to the state and transfer it to the individual or the organization [4].

Work

How a person feels about their job is fundamental to their decision whether to retire early. Ekerdt and DeViney [14] found that men developed negative feelings towards their work as the time of their retirement approached. Positive attitudes towards work, a high level of job-commitment and high job-satisfaction have been associated with lesser likelihood of early retirement [16, 19, 20]. Henekens and Tazelaar [17] found that people who experienced stressful organizational factors at work were more likely to retire from work early, and Pavalko [24] suggested that work life patterns could affect longevity and mortality. In view of recent changes in working practices and the changing expectations of retirement, it seems appropriate to examine whether predictors of early retirement have changed.

The current study

Here, we examine predictors of early retirement from the Whitehall II cohort of male and female civil servants. The Whitehall II study was set up in 1985 to determine the degree and causes of the social gradient (as measured by occupational grade) in morbidity and mortality [25]. The longitudinal Whitehall II study provides an excellent opportunity to use prospective longitudinal data to examine why civil servants retire before the mandatory Civil Service retirement age of 60 years.

The British Civil Service is one of the largest employers in the public sector, and includes a diverse range of occupations and salaried levels. The number of people employed by the Civil Service was 512 000 in 1996, but had been as high as 872 000 in 1961 [26]. Considerable down-sizing and reorganization in the 1980s have affected all levels of the Civil Service [27].

The Civil Service has 473 employment grades. For the purpose of this study, we grouped them into three: administrative grades as the high grades; professional grades as the middle grades; and clerical and support grades as the lower grades. In 1995 salary ranges were £25 400–£150 000 in the administrative grades, £5500–£26 300 in the professional grades and £4900–£10 900 in the clerical and support grades. The Civil Service occupational pension is calculated from the length of time a person has worked in the Civil Service and their final grade of employment. A person who has worked full-time in the service for 40 years may receive up to 50% of their last salary on leaving, and a lump sum calculated as a proportion of their time worked in the service.

Methods

The cohort of civil servants for the Whitehall II study was established between 1985 and 1988 (phase 1). All male and female civil servants aged between 35 and 55 years, in 20 London-based departments were sent an introductory letter and screening questionnaire. Participants underwent an initial screening examination which included an electrocardiogram and measurement of blood pressure and blood cholesterol. The overall response rate was 73% (74% for men and 71% for women). The true response rates are likely to be higher because around 4% of those listed as employees were not eligible as they had moved before the study. Response rate was 81% in the top grade and 59% in the bottom grade. Non-response by age and sex was very similar. Altogether, 10 308 civil servants were examined, 6895 men (67%) and 3413 women (33%). The data and the measurements are described more fully elsewhere [25]. After initial participation at phase 1, a postal questionnaire study was carried out in 1989 (phase 2). Participants were approached again for a second screening examination and questionnaire in 1991–93

(phase 3) and a further postal questionnaire in 1995–1996 (phase 4).

Sample

The study sample in this analysis consists of men and women who participated in the second phase of the study, who were aged 50–59.5 years, and had not retired before the second phase ($n = 2532$). Follow-up of early retirement was based on questionnaire information from phases 3 (1991–93) and 4 (1995–96): both questionnaires included information on the date and reason for leaving the Civil Service. Only those people who described themselves as retired from the Civil Service, and classified themselves as currently retired before the age of 59.5 years are considered as early retired in this analysis. We excluded follow-up between phases 1 and 2 because of the small number of retirements before phase 2, and because information on the reasons for retirement at phase 2 was not available. Loss to follow-up between phases 2 and 4 was 7% (drop-out and deaths). Person-years at risk were calculated on a daily basis. In total the study population lived 9107 person-years and experienced 678 early retirements during the follow-up period.

Variables

The following explanatory variables from the phase 2 questionnaire were used in the statistical analyses. Age and duration of time working for the Civil Service (year left Civil Service minus year joined Civil Service) were available in single years and were adjusted in all analyses. Grade of employment was obtained by asking all participants for their Civil Service employment grade and job title. In addition to employment grades, we used three other indicators of financial insecurity and wealth: material problems, housing tenure and car access. Material problems were based on an index of questions regarding availability of money to buy food or clothing and pay the bills, and problems with housing (too small, repairs needed, damp etc.) and the neighbourhood (noise, unsafe, few local facilities) [28]. Marital status was classified into married/cohabiting, single, divorced and widowed.

Health was assessed with three variables: long-term illness, self-perceived health and a 30-item general health questionnaire [29]. The question on longstanding illness reads ‘Do you have any longstanding illness, disability or infirmity? (*longstanding illness means anything that has troubled you over a period of time or that is likely to affect you over a period of time*)’ [30]. Perceived health was obtained from response to the question, ‘Over the last 12 months would you say your health has been: very good, good, average, poor or very poor?’

Work characteristics were measured by indices of job demands, social support at work, job satisfaction and decision latitude, based on the Karasek Job Context

Instrument [31]. The job demand index was based on four questions on the pace, intensity of work, having enough time for and difficulty in combining work tasks. The social support index was created from six questions on the frequency of help and support from colleagues and immediate superiors as well questions on the sufficiency and consistency of information from superiors. In addition, we used an indicator of overall job satisfaction, based on the question ‘About your job in general. How satisfied are you with your job as a whole, taking everything into consideration: very satisfied, satisfied, dissatisfied or very dissatisfied?’.

Statistical analysis

Time until early retirement was analysed by means of Cox proportional hazards model, with time constant explanatory variables. The models were fitted separately for both sexes with the Stata statistical package [32]. The results of the regression models are presented as early retirement rate ratios (hazard ratios). The first category of each explanatory variable is taken as a reference group, with a rate ratio of one.

Results

At baseline there were 2532 civil servants. Of those, 26.7% retired early during the follow-up period. Table 1 shows the age- and duration or employment-adjusted early retirement rate ratios by sex and key explanatory factors. Women aged 55–59.5 years were 45% more likely to retire early from the Civil Service than women aged 50–54 years. Men aged 55–59.5 years were twice as likely to retire early than their colleagues in the 50–54-year age group. A clear gradient for both men and women showed that the longer people worked in the Civil Service the more likely they were to retire early. Those with more than 35 years of service were three times more likely to retire early from work compared with those who had worked for the service for 1–15 years.

Finance

Male civil servants who had some, many or severe material problems were less likely to retire early than men with no material problems. Among women, results were more inconsistent, showing that those with some and many material problems were more likely to retire early than those with severe or no material problems. Men and women who owned their properties and had access to a car were more likely to retire early than those who did not.

Employment grade

Grade of employment showed a clear gradient in early retirement, with men and women in the clerical and

Table 1. Numbers of subjects and adjusted early retirement rate ratios^a and 95% confidence intervals (CIs), by sex and explanatory variable

		Men			Women		
		No. of subjects		Adjusted early retirement rate ratio (95% CI)	No. of subjects		Adjusted early retirement rate ratio (95% CI)
		All	Early-retired		All	Early-retired	
Age ^d (years)	50–54	977	298	1.00	460	151	1.00
	55–59.5	722	170	2.17 (1.75–2.68) ^b	373	59	1.45 (1.04–2.02) ^b
Service employment (years)	1–15	172	24	1.00	153	22	1.00
	16–24	433	96	1.77 (1.13–2.78) ^c	397	90	1.55 (0.97–2.48) ^c
	25–34	587	170	2.22 (1.44–3.42) ^c	168	50	1.96 (1.18–3.24) ^c
	35+	507	178	2.96 (1.96–4.53) ^c	115	48	3.30 (1.99–5.49) ^c
Employment grade ^e	I	881	251	1.00	66	20	1.00
	II	686	204	1.07 (0.89–1.28)	353	116	1.05 (0.64–1.70)
	III	132	13	0.44 (0.25–0.78)	414	74	0.64 (0.38–1.05)
Marital status	Married	1486	401	1.00	503	119	1.00
	Single	120	32	1.00 (0.69–1.43)	169	58	1.42 (1.02–1.97)
	Divorced	80	28	1.58 (1.08–2.33)	109	19	0.76 (0.47–1.24)
	Widowed	13	7	2.49 (1.17–5.30)	52	14	1.32 (0.75–2.30)
Material problems	None (0)	501	171	1.00	240	63	1.00
	Some (1–2)	575	139	0.72 (0.58–0.90)	242	65	1.19 (0.83–1.69)
	Many (3–4)	373	88	0.72 (0.56–0.94)	173	49	1.08 (0.74–1.58)
	Severe (5+)	250	70	0.88 (0.66–1.16)	178	33	0.72 (0.47–1.10)
Housing tenure	Owner-occupied	1620	457	1.00	675	178	1.00
	Other	79	11	0.57 (0.31–1.04)	158	32	0.82 (0.56–1.20)
Car access	Yes	1536	431	1.00	614	161	1.00
	No	163	37	0.93 (0.66–1.30)	219	49	0.87 (0.63–1.20)
Long-term illness(es)	None (0)	1071	287	1.00	512	119	1.00
	Some (1)	505	140	1.08 (0.88–1.33)	271	74	1.25 (0.94–1.68)
	Many (2+)	123	41	1.40 (1.01–1.95)	50	17	1.42 (0.85–2.37)
Perceived health	Good/very good	628	152	1.00	194	48	1.00
	Intermediate	685	191	1.26 (1.01–1.56)	310	77	1.04 (0.72–1.49)
	Bad/very bad	386	125	1.63 (1.28–2.07)	329	85	1.20 (0.84–1.73)
GHQ score	< 2	964	245	1.00	418	95	1.00
	≥ 2, > 5	329	97	1.15 (0.91–1.46)	145	40	1.27 (0.87–1.84)
	≥ 5	406	126	1.26 (1.02–1.56)	270	75	1.16 (0.85–1.57)
Job demands	Low	537	142	1.00	364	82	1.00
	Average	571	161	1.01 (0.80–1.27)	238	59	1.08 (0.77–1.51)
	High	591	165	0.95 (0.76–1.19)	231	69	1.32 (0.95–1.82)
Work support	Low	550	165	1.00	337	85	1.00
	Average	392	107	0.89 (0.70–1.14)	157	43	1.12 (0.77–1.62)
	High	757	196	0.82 (0.66–1.00)	339	82	1.00 (0.74–1.37)
Job satisfaction	Yes	1441	357	1.00	694	161	1.00
	No	258	111	2.03 (1.64–2.52)	139	49	1.59 (1.15–2.20)
All		1699	468		833	210	

GHQ, general health questionnaire (higher score indicates poorer health).

^aAdjusted for age and duration of employment in the Civil Service; ^bUnadjusted rate ratio; ^cAge-adjusted rate ratio. ^dSince average duration of follow-up is much shorter in the 55–59.5-year age group than in the younger age group, the total number of subjects does not well reflect the number of person years in those age groups. Calculation of age-specific mortality rates from the figures in the table is thus misleading.

^eI = administrative, II = professional/executive, III = clerical.

support grades (age- and duration of service-adjusted rate ratios of 0.44 and 0.64 respectively) much less likely to retire early than men and women in the administrative grades. However differences between the administrative and professional grades were small.

Health

Men and women with more long-term illness were more likely to retire early than people with no long-term illness. Also, those with bad or very bad perceived health were more likely to retire early than those with good or very good health. In addition, an association between high scores on the General Health Questionnaire and early retirement was evident. However women with a General Health Questionnaire score between 2 and 5 were more likely to retire early than women with higher scores.

Work

Women who had higher demands at work were more likely to take early retirement. However, among men, high job demands were not associated with early retirement. Among men, but not among women, higher social support at work was associated with a lower probability of early retirement. Job satisfaction showed a clear and strong relationship with early retirement. Men who were not satisfied with their job were more than twice as likely to retire from work early than those who were satisfied with their job. Women were 59% more likely to retire early if they were less satisfied with their jobs.

Marital status

Age- and duration of service-adjusted early retirement rate ratios for marital status showed that widowed men were 2.5-times more likely to retire early than their

married colleagues. This was in contrast to single women who were 42% more likely to take early retirement than married women. Divorced women were least likely to retire early.

Further analyses were carried out to assess if grade, health and job satisfaction were independent predictors of early retirement. Table 2 shows changes in grade differences, job satisfaction and self-perceived health in early retirement when we separately adjusted for other explanatory variables. These results show that the initial age- and duration of service-adjusted early retirement rate ratios change very little when other variables are adjusted for.

Discussion

Our results used data collected in 1989, 1991 and 1995 from a longitudinal study of 2532 London-based civil servants who retired early from work. The main findings are that taking early retirement from work depends upon employment grade, state of health and level of job satisfaction. We found these associations to be independent of each other.

Financial status is an important factor in making the decision to retire early. Our results showed that people in the clerical and support grades are less likely to retire early from the Civil Service. Material problems, access to car and housing tenure also contributed to our evidence that financial status is a contributor to retirement. It seems possible that financial security partially explains the greater tendency for those in higher employment grades to be more ready to take early retirement. However, the persistent influence of grade on early retirement after accounting for material problems, access to a car and housing tenure suggests that this is only a partial explanation.

Table 2. Early retirement rate ratios and 95% confidence intervals (CIs) by grade, job satisfaction and perceived health in two different regression models

		Early retirement rate ratio (and 95% CI)			
		Men		Women	
		Baseline ^a	Fully adjusted ^b	Baseline ^a	Fully adjusted ^b
Grade	I	1.00	1.00	1.00	1.00
	II	1.07	1.03 (0.84–1.26)	1.05	1.09 (0.66–1.82)
	III	0.44	0.39 (0.21–0.72)	0.64	0.74 (0.42–1.29)
Job satisfaction	Yes	1.00	1.00	1.00	1.00
	No	2.03	1.99 (1.56–2.53)	1.59	1.63 (1.12–2.38)
Perceived health	Good/very good	1.00	1.00	1.00	1.00
	Interim	1.26	1.23 (0.98–1.54)	1.04	1.01 (0.69–1.47)
	Bad/very bad	1.63	1.55 (1.18–2.04)	1.20	1.16 (0.78–1.73)

^aIncludes terms for age, duration of employment in the Civil Service and the variable of interest (grade, job satisfaction or perceived health).

^bIncludes terms for age, duration of employment in the Civil Service, grade, job satisfaction, perceived health, marital status, material problems, housing tenure, car access, long-term illness, general health questionnaire score, job demands and work support.

The Civil Service occupational pension in the UK is low compared with the average pension in other European countries [33]. Low incomes in retirement in the UK are now expected and accepted as being part of old age [34]. The low pensions may create difficult financial situations for people in the clerical and support grades who are breadwinners and have dependants. Mutran *et al.* [35] found that pension eligibility had a persistent positive effect on attitudes towards retirement. Many countries have now begun to curtail the cost of early retirement to the state and transfer it to the individual or the organization [3] and this may affect the way people approach early retirement. In the Netherlands, where people receive approximately 80% of their highest salary as a pension, financial considerations seem to play a minor role in the decision to take early retirement [17].

The finding that financial means and few material problems allow people to choose early retirement may imply that some people would like to take early retirement but will be unable to manage financially. How these people cope financially in retirement when they reach the mandatory retirement age is of interest for further research, particularly as, in general, those who receive an occupational pension (in addition to a state pension) have previously been considered comparatively privileged.

Ill-health continues to be an important predictor of early retirement. The work of Palmore *et al.* [21] supports our findings as they found the worse people perceived their own health status the more likely they were to retire early if they could manage financially. Even after adjusting for occupational grade, we found self-perceived health continued to be an independent predictor of early retirement. Psychological ill-health in men was also significantly related to a higher risk of early retirement.

Job dissatisfaction was a strong predictor of early retirement for both men and women. This is interesting because the effect is in the opposite direction to that of grade. Civil Servants in the higher grades are more likely to report higher satisfaction [25], and are also more likely to take early retirement. Could there be greater pressure and larger incentives to retire early in higher grades if they are unhappy with their jobs? Or could the incentives to retire early outweigh the high level of job satisfaction in the high grades? Our findings are supported by the findings of Taylor and McFarlane Shore [18] that negative views of the job might push someone towards retirement, and by the findings of Henekens and Tazelaar [17] that civil servants in the Netherlands were more likely to retire early to avoid stressful situations that were likely to arise if their work places had been reorganized and had undergone cutbacks. Herzog and co-workers [36] also concluded that stressful or unrewarding jobs were more likely to lead workers to reduce their working time or leave altogether.

In contrast, Ekerdt and DeViney [37] concluded that, as the time of retirement draws nearer, men may begin to develop negative feelings towards a job, and acknowledged that retiring early may be the cause of dissatisfaction or the consequence of such attitudes.

It is paradoxical that, although job satisfaction has a powerful influence on early retirement, individual work characteristics such as demands, control and work support, which might be expected to contribute to the composite variable satisfaction, did not have much effect on early retirement. This is not in keeping with our findings on back pain sickness absence in this cohort, where the effect of low job satisfaction on absence was abolished by adjustment for other work characteristics [38]. There was a suggestion of a small protective effect of work support in men and that work demands in women were related to a greater likelihood of taking early retirement [39]. Work demands in women, as opposed to men, have also been found to influence physical and psychological functioning in this cohort [40].

The results for marital status appear surprising, with widowed men and women, divorced men and single women being more likely to take early retirement than their married counterparts. This may be due to married participants being more likely to have dependants to support. Our results were in contrast to those of a study of civil servants taking early retirement in the Netherlands [41] that found lower probability of early retirement if the person was widowed or divorced. In data not presented in this paper we found most single women in the Civil Service were in the administrative grades, and this might be why single women can afford to retire early. Contrary to popular belief of 'a happily active retired couple', it seems that single people in the Civil Service are more likely to take early retirement than married people [39].

Conclusion

The changing culture of early retirement affects the understanding of the retirement process itself. Ekerdt, Deviney and Kosloski [37] found that the extent of planning for retirement depended on the type of retirement (partial, complete, voluntary, compulsory) that later occurred. It is clear that the decision to retire is complex [19, 42, 43]. Evans *et al.* [44] thus recommend the use of qualitative methodology to enable more detailed understanding of the retirement process, an approach we are continuing to pursue in the Whitehall II cohort.

In summary, our results show that self-perceived health, employment grade and job satisfaction are all independent predictors of early retirement within an employed population of British civil servants. It should be recognized that the current situation of early retirement in the Civil Service is subject to change and is dependent upon economic and labour market changes.

The British culture of retirement is unique, particularly in view of the low pension remuneration people receive in comparison to other industrialized countries. This disparity in the value of pensions may go some way towards explaining the emphasis on financial status in our study. Comparisons of early retirement with other countries are therefore problematic and our findings emphasize the importance of understanding the changing culture of retirement in the UK.

Key points

- The age of retirement is decreasing, but current longitudinal evidence of the predictors of early retirement among men and women is rare.
 - In our data, self-reported health, employment grade and job satisfaction are independent predictors of early retirement.
 - The culture of retirement is changing rapidly in the UK, and qualitative analyses may further advance our understanding of the retirement process.
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