

Labour force participation and retirement in the UK

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1. Introduction

Retirement behaviour is an important but under-researched topic in Britain. This is in spite of dramatic changes in the labour market behaviour of older workers. Participation rates for men aged 55-64 have fallen by around 20 percentage points over the last 25 years and while there has been less of a fall in employment among older women this contrasts with rising levels of employment among younger women. In spite of this the issue of retirement has been subject to little serious econometric analysis.² Undoubtedly one reason for this has been a lack of suitable data sets, in contrast to the United States. The recent availability of a new panel dataset on a cohort of older individuals, the UK Retirement Survey, redresses the balance, but only to a limited extent. Unlike the retirement panel studies in the US, the UK Retirement Survey has only two waves of information and suffers from very a high rate of attrition between the two waves. In this paper we describe the information available in the Retirement Survey, together with other sources of data that might be used by someone wanting to study retirement behaviour in the UK. It also summarises recent trends in labour market participation that emerge from these sources of information.

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² Notable exceptions are Zabalza, Pissarides and Barton (1980) and Meghir and Whitehouse (1997)

2. Data Sources

2.1 *The Retirement Survey*³

The Retirement Survey is the first large-scale panel dataset in the UK to focus on individuals around the time of retirement. Two waves of information were collected. Wave 1 was collected in 1988/9. It contains information on 3543 'key respondents' who were aged 55-69, together with 609 spouses outside this age range, a total of 4152 individuals. Wave 2 was collected in 1994.

The Retirement Survey contains a wide range of information on family, social and economic status of respondents and on the nature of, and constraints on, retirement behaviour. It also contains a large number of expectational and attitudinal questions and, since many household members retired between the two waves of the survey, this allows us to compare retirement expectations and realisations. The survey contains fairly detailed questions on asset-holdings, including housing tenure, ownership of various financial assets (with banded values), and whether or not the individual has some form of occupational or other private pension. The two waves of the survey also contain a lifetime family, employment and pension scheme tenure event history for the whole sample. However, there are a number of limitations with the available information. For example, there is no spending information. More problematically, there is only limited information on the rules of the occupational pension scheme. These are really important for understanding the retirement behaviour of people in the UK. The majority of full-time employees belong to an occupational scheme and their retirement behaviour will be affected by the accrual rates, the definition of pensionable earnings and early retirement provisions in the scheme to which they belong.

In terms of sample selection and the range of information collected the Retirement Survey is comparable to the US Retirement History Survey and the Health and Retirement Survey. But it is a much less useful data source than either of the two US studies because of the fact that only two waves were collected (and were collected a

³ See Bone et al (1992), Disney, Meghir and Whitehouse (1994), Meghir and Whitehouse (1997), Disney, Grundy and Johnson (1998), Tanner (1998).

long way apart) and because of the very high rate of attrition between the two waves. The Retirement Survey was not originally intended to be a panel and so little attention was paid to keeping in touch with wave one respondents. As a result only two-thirds of the original sample of key respondents and spouses were re-interviewed. 11% of respondents disappeared in this interval due to mortality; the residual attrition is a combination of non-response and (perhaps) unreported mortality. The sample of survivors at the second wave is around 2,400, a larger sample of people in the relevant age range than in most cross-section or panel datasets, but far smaller than the US Surveys.

2.2 *The Family Expenditure Survey*⁴

The Family Expenditure Survey collects detailed information on the incomes, spending and demographics of approximately 7,000 households each year. It contains standard information on household members' current employment status, hours worked and earnings. The key advantage of the FES is that it is available on a consistent and reliable basis since 1968. This permits consideration of trends in employment over a more than thirty-year period. Although it lacks a panel element, the long time-series has been exploited to track the employment experiences of different date-of-birth cohorts as they get older.

2.3 *Labour Force Survey*

The Labour Force Survey collects information on economic activity (using internationally accepted definitions of employment, unemployment and inactivity) together with a wide range of related topics such as occupation, training, hours of work and personal characteristics of household members aged 16 and over. The survey was conducted biennially from 1973 to 1983, annually from 1984 to 1991 and quarterly since Spring 1992.

The LFS has a rotating quarterly panel design in which 80% of selected households are retained in the sample in successive quarters and each households has five interviews.

⁴ See Banks, Blundell and Tanner (1998)

Each adult in the household is interviewed, as far as possible, although proxy interviews on behalf of absent household members are accepted (about 30% of interviews). The questionnaire collects general information about the household, family composition, housing and demographic characteristics. It also collects detailed information for each adult in the household on economic activity/inactivity; employment, unemployment and under-employment (for example job search activities, whether seeking additional work and reasons for doing so, reasons for working part-time or for working shorter hours than usual, reasons for not wanting to work, etc.); educational qualifications and training; labour mobility (retrospective questions about situation one year ago are included in the spring quarter questionnaire); travel to work; trade union membership; current working conditions; hours of work and health (sickness, accidents and health problems or disabilities which affect work).

2.4 *The British Household Panel Survey*

The British Household Panel Survey has been collecting information on a panel of approximately 6,000 households since 1991. It collects detailed information on employment, income, demographics and health. The range of information available would allow a detailed analysis of employment and retirement behaviour. However, the main drawback in a non-specialised survey is the size of the sample of people in the appropriate age range. There are 2,005 individuals aged 50-65 in the first wave of whom 1,295 are interviewed in all of the first six waves (1991-96).

2.5 *English Longitudinal Study of Ageing*

Plans are underway for a new longitudinal survey focusing on older individuals – the English Longitudinal Study of Aging. This study will be modeled on the US Health and Retirement Survey (HRS) and Asset and Health Dynamics (AHEAD) studies, with a primary objective to collect longitudinal data on health (including biomedical data), economics, and social networks and resources, from a representative sample of the English population aged 50 and older. The Health Survey for England (HSE) will provide the sampling frame for ELSA. The HSE is a large random annual cross-sectional survey on the health of the population of England. Therefore, baseline data on health, including biomedical data, have already been collected at the HSE contact on 16,262 individuals who will be aged 50 or older at the point of first contact during ELSA. These data will be

built upon by the collection of baseline economic data at wave 1 of ELSA and both health and economic data at wave 2 of ELSA. Data will be collected on changes in health and economic position, and on social networks and resources at each wave of ELSA.

3. Main trends in labour market participation

The Family Expenditure Survey contains a long time-series of consistent information on individuals' employment status, allowing us to look at trends in labour market participation a period of almost thirty years. Figure 1 plots employment rates for older male and female workers since 1968.

Since the late 1960s there has been a dramatic fall in the proportion of older men who are in employment. The proportion of men aged 55-59 in employment fell from more than 90% in 1968 to less than 70% in 1996. The proportion of men aged 60-64 in employment halved over the period – falling from 80% in 1968 to less than 40% in 1996. Figure 1 shows clearly that the biggest falls coincided with the recessions in the early 1980s and the early 1990s. During each of these recessions, the proportion of younger male workers in employment also fell. But these falls were less pronounced and, in both cases, employment among younger male workers rose again during the economic recoveries that followed (see Table A1). The fall in the proportion of older men who are in *full-time* employment has been even greater than the fall in the proportion in any form of employment. Within the group of older workers there has been a shift from full-time employment to part-time employment – and also to self-employment. In 1968 90 per cent of employed older workers were in full-time employment. By 1996 it was less than 70 per cent. There has also been a growth in part-time and self-employment among younger workers – but to a lesser extent (see Table A1).

What are the older non-workers doing? Figure 2 provides some evidence on this. It shows the self-reported status of older men who are not working – the alternatives are unemployed (i.e. actively seeking work), sick or retired. The majority of older male non-workers have left the labour market altogether. There has been some increase in the proportion who are unemployed (and therefore still looking for work). Of course whether or not older non-workers look for work is likely to be affected by their perceived chances of getting a job – and by the returns to finding another job. There has been a bigger

increase in the proportion who say that they are sick, corresponding to a big increase in the number of people claiming long-term sickness benefit over the same period (see Figure 3). There is also evidence of a trend towards early retirement with an increase in the number of men who are describe themselves as being retired before the state pension age of 65.

Older women have not experienced similar falls in employment rates. In fact their employment rates have been relatively constant across the same period. However, this contrasts with an increase in full-time employment among younger women (see Table A1).

Figure 4 plots employment profiles for different date-of-birth cohorts. Each line represents the proportion of a set of individuals with the same date-of-birth who are in a particular employment state at a particular point in time (and hence age). These proportions have been plotted against age (where age represents the mean age of the group of individuals). The changes in male employment patterns over time are reflected in clear differences between date-of-birth cohorts. Among younger date-of-birth cohorts there is a lower proportion of men in full-time employment at almost every age than among older date-of-birth cohorts. Some of the fall in full-time employment across cohorts is explained by an increase in the proportion of younger date-of-birth cohorts who are self-employed. However, patterns of self-employment within date-of-birth cohorts do not appear to be very stable, with some evidence of cyclical fluctuation. There is also some increase across cohorts in the proportion of younger cohorts who are employed part-time (particularly among older ages, i.e. 50+). Among women in different date-of-birth cohorts, there is far less evidence of any systematic difference between different cohorts.

4. Retirement Transitions

Figure 5 plots employment survival probabilities for men and women using data from the Retirement Survey. The sample comprises everyone in work at age 50 and the survival curves show the number of months that individuals remain in employment from age 50.⁵ It shows that women tend to leave employment at younger ages than men (although the

⁵ Short spells out of the labour market between spells of employment are not treated as employment exits.

women who are still working after age 65 are actually less likely to leave work than men). This is not surprising given that the state pension age for women is five years below that for men. Also, there is a bunching of labour market exits exactly coinciding with people reaching the state pension ages – 60 for women and 65 for men. Just over 15% of men in the sample leave work in the month that they have their 65th birthday. There is also a smaller bunching effect of men leaving work at 60 and women leaving work at 65.

Figure 6 does the same thing, but splits the sample according to whether people belong to an occupational pension scheme. For men, nearly three-quarters of the sample have an occupational pension. For women, the proportion is more like one-third. The figure shows a clear difference in retirement behaviour for people in occupational schemes compared to those who are not – although similar patterns for men and women. In particular, it shows that people with occupational pensions are more likely to remain in the labour market at least until age 60 than are those without. From age 60 the survival probabilities converge for both men and women. The differences are consistent with what we would expect given the incentive structure built into defined benefit (DB) occupational pensions. DB occupational pension schemes give a benefit related to final pay earned while a member of the plan and to the number of years' membership of the scheme. This gives individuals an incentive to stay on in employment, and often the scheme rules deter individuals from retiring prior to the earliest potential receipt of benefits. However, once the person has passed the normal retirement age the returns to continuing to work in terms of increasing pension entitlement can be relatively small. This is likely to explain the acceleration in the labour market exit rate after age 55 for those in occupational pensions. One result is that retirement behaviour is considerably more heterogeneous for those without occupational pensions. Retirement ages cover a larger age range and have a broader distribution.

4. Retirement incomes

The state and private pension schemes combine to provide a fairly wide array of alternative income sources for individuals retiring from the labour market. The state pension system is fairly inflexible (compared to the US, for example) with a single age at

which benefits become available.⁶ However, other state benefits (income support and incapacity benefit in particular) provide income for individuals leaving employment before this age. In addition, the UK is characterised by a high level of coverage of private pensions which provide individuals with retirement income before the state pension age.

State pension system

The UK state pension system has two elements – the basic state pension (a flat-rate, contributory benefit) and the state earnings-related pension system (SERPS) which pays a fraction of an individual's earnings (between a lower and upper earnings limit) since its introduction in 1978. Both are paid once individuals have reached the state pension age – currently 65 for men and 60 for women. The generosity of both elements of the state pension system has been cut in recent years. The basic state pension has been up-rated in line with prices rather than earnings since 1981. The generosity of SERPS to people retiring after 2001 has been halved through reductions in the accrual rate and in survivor benefits.

Before state pension age there are a range of benefits available, of which the most important (in terms of number of people claiming) are a contributory unemployment benefit, means-tested income support (which people over 60 can claim without having to seek work) and incapacity benefit (formerly invalidity benefit). Receipt of invalidity benefit or incapacity benefit depends on people being able to show that they are incapable of work. For invalidity benefit this required them to obtain medical certificates from their own doctor every 6 months with possible referral to government medical services. The requirements for incapacity benefit (which replaced invalidity benefit in 1995) have been made stricter with people being assessed on the basis of an 'all work test' with a government doctor. The change from invalidity benefit to incapacity benefit was motivated in part by the huge growth in the number of people claiming invalidity benefit over the last 20 years (see Figure 3).

Private pensions

⁶ Although individuals can choose to defer receipt after this age in return for an increase in pension entitlements which is slightly less than actuarially fair for men (with average mortality), but slightly better than actuarially fair for women.

The UK stands out from the US and the majority of other European countries in the level of coverage of private pensions. More than two-thirds of employees belong to a private scheme – either an occupational pension scheme sponsored by their employers, or a personal pension scheme. In most cases these are alternatives to rather than additional to the secondary state pension, SERPS.

Occupational schemes currently cover around 45% of employees (down from a peak of more than 50% in early 1980s). The majority of occupational pension schemes (80%) are defined benefit schemes (DB), providing a pension based on a fraction of the individual's 'final salary' (the salary at or near retirement) for each year of scheme membership. For example, in the private sector the standard scheme offers a pension equal to one-sixtieth of final salary for each year of scheme membership. However, schemes vary in their definition of final salary, their minimum and/or maximum retirement ages, their integration with the state scheme and the indexation of benefit levels.

Since 1988 employees have also been able to contract out of SERPS into personal pension schemes which are individual defined contribution (DC) schemes. Take-up of personal pension schemes has been rapid – around 25% of employees have a personal pension – although occupational pensions remain the most important private schemes for current and recent cohorts of retirees.

Table 1 summarizes the proportion of men and women receiving income from different sources using data from the Family Expenditure Survey. The most important forms of income for non-workers below the state pension age are private pensions and disability benefits. Receipt of occupational pension income begins a long time before the state pension age – more than one-third of men aged 55-59 receives some occupational income and more than half men aged 60-64. What also emerges from looking at the different sources of income people receive is that the two key sources of income – private pensions and disability benefits – are often not alternative sources of income for different groups of people. More commonly, the same people receive both private pension income and disability benefits from the state. Incapacity benefit (and invalidity benefit before it) is not means-tested, which makes it possible for someone to receive it when they also have occupational pension income. Also, incapacity benefit is not taxed and can be received up until age 70 (65 for women) instead of the basic state pension. This actually creates an incentive for people with reasonably high levels of private

pension income to delay receipt of the basic state pension and claim incapacity benefit instead.

Table 1: Percentage of people with income from different sources, by age

	Unemp Benefit	Income Support	Incapacity Benefit	State Pension ¹	Private Pension ²	People with ICB who have PP
MEN						
50-54	1.3%	5.3%	7.4%	0.0%	9.4%	32.1%
55-59	2.0%	5.6%	13.9%	0.0%	34.3%	59.5%
60-64	2.7%	9.6%	21.0%	0.0%	54.0%	70.5%
65-69	0.0%	5.3%	16.7%	81.2%	74.1%	78.7%
WOMEN						
50-54	0.8%	4.0%	4.0%	5.1%	10.4%	
55-59	0.9%	4.6%	4.0%	8.0%	20.0%	
60-64	0.0%	4.8%	2.4%	79.7%	36.0%	
65-69	0.0%	4.7%	0.0%	95.9%	41.3%	

¹ including widow's pensions

² including income from voluntary annuities

Source: Family Expenditure Survey 1994-95

The increase in coverage of, and levels of, occupational pensions has been extensively documented (see Blundell and Johnson, 1998). Table 2 provides additional evidence on these trends from the Family Expenditure Survey. It shows the proportion of different date of birth cohorts receiving any income from private pensions at different ages, and also the mean amount of pension income received (averaged across non-zeros only) in constant 1996 prices. It shows an increase in receipt of private pension income (and amounts) across the cohorts at most ages. However, there is less of an increase in the proportion of those aged 67 receiving private pension income – suggesting that at least part of the increase at younger ages comes from those with an occupational pension starting to receive income at younger ages, as well as from an increase in coverage. A large part of the trend towards early retirement can be explained by people retiring onto occupational pensions at earlier ages – in many cases as a result of being offered particular, generous early retirement packages.

Table 2: Occupational pension income – cohort profiles

Ave age of cohort	Cohort 1 1911-14	Cohort 2 1915-18	Cohort 3 1919-22	Cohort 4 1923-26	Cohort 5 1927-30	Cohort 6 1931-34
47	—	—	3.7% (£41.94)	4.3% (£35.34)	3.7% (£46.84)	2.8% (£31.91)
52	—	5.2% (£45.13)	6.2% (£43.47)	4.6% (£30.35)	8.1% (£46.53)	14.3% (£59.36)
57	9.9% (£54.80)	9.4% (£56.84)	13.4% (£42.96)	19.6% (£46.81)	26.6% (£77.54)	23.1% (£79.83)
62	24.8% (£57.26)	28.3% (£55.74)	45.6% (£71.64)	50.0% (£81.77)	53.8% (£95.50)	56.1% (£105.80)
67	52.7% (£42.07)	58.1% (£49.72)	63.3% (£74.67)	62.8% (£74.78)	—	—

Income figures are for amount of private pension income per week in constant 1996 prices.

Source: Family Expenditure Survey 1978-96

5. Replacement rates using the UK Retirement Survey

Data from the Retirement Survey can be used to compare the incomes of the same individuals before and after retirement. Around 800 people retired between the two waves of the survey. Average incomes for this group are summarised in Table 3. The definition of income that we use is a measure of ‘usual net weekly income’. This is defined as the total of after-tax income from earnings, pensions, investments and social security benefits (excluding housing benefits). All incomes are expressed in constant 1996 prices. The replacement rate at the mean for individual male incomes during the transition to retirement is 0.79. For those who pass through the state pensionable age (65) and retire during the two waves of the Survey the replacement rate is 0.86. For those who retire before the state pension age the replacement rate is much lower – this is true whether the replacement rates are calculated at the mean or the median. Most of this difference is attributable to the higher average level of pre-retirement income of the younger cohort; the post-retirement incomes of the two groups are broadly similar. However, it should be noted that the post-retirement incomes of the younger cohort will not be their final ones because they will not yet be entitled to the state retirement pension (and not all who are entitled to occupational pensions will yet be receiving

them). In fact, the younger cohort of retirees can expect their post-retirement incomes to increase fairly considerably when they reach the state pensionable age. Looking at men who are retired in both waves of the Survey, those who reach the state pensionable age between the two waves have a real increase in their average incomes of 29% (compared to an average real increase of 4% for those who already reached the state pensionable age). Applying this rate of increase to the post-retirement incomes of those who retired before the state pensionable age, their replacement rate when they reach 65 will be 0.88.

Table 3: Summary of incomes for those who retired between the two waves

	Mean income 1988/9	Mean income 1994	Replacemen t rate	Median income 1988/9	Median income 1994	Replaceme nt rate
<i>Men</i>						
All	193.56	152.38	0.79	169.24	124.18	0.73
55-59	228.93	156.96	0.69	216.85	124.98	0.58
60-64	179.25	153.79	0.86	162.10	125.36	0.77
<i>Women</i>						
All	85.77	82.92	0.97	63.32	67.16	1.06
55-59	98.60	87.70	0.89	74.29	68.01	0.82
60-64	80.85	80.10	0.99	60.65	65.79	1.08

Source: UK Retirement Survey

To illustrate how the sorts of replacement rates that we have described come about, we look in more detail at how the levels and compositions of post-retirement incomes for men vary according to their pre-retirement income and according to their age at retirement. Ranking individuals according to their pre-retirement incomes and their age of retirement, we compare their incomes in the two waves and the balance between receipt of state and occupational pension incomes in 1994. This tells us a number of important things about the way in which incomes change at retirement. First it gives us an impression of replacement rates by income level – is it high or low income individuals who have the highest replacement rates. Secondly it says a lot about the redistributive role of the state – what role do state incomes play in maintaining the pre-retirement incomes of the rich and the poor. And thirdly it gives us more information about the

difference between those retiring early and those retiring at state pension age (although the incomes in 1994 of those who have not yet reached 65 are likely to change as their entitlement to state benefits, and possibly to occupational pensions, changes).

Table 4: Incomes for men who retired from employment between the two waves

a. Aged 60-64 in 1988

1988 quartile	1988 income	1994 income	Replacement rate	Occupational pension in '94	Social security in '94
1 (poorest)	£168	£125	0.74	£18	£90
2	£231	£145	0.63	£32	£93
3	£316	£168	0.53	£64	£84
4 (richest)	£574	£320	0.56	£160	£99

b. Aged 55-59 in 1988

1988 quartile	1988 income	1994 income	Replacement rate	Occupational pension in '94	Social security in '94
1 (poorest)	£182	£131	0.72	£24	£87
2	£282	£160	0.57	£59	£71
3	£404	£211	0.52	£114	£53
4 (richest)	£716	£355	0.50	£167	£38

First consider those who reach 65 between the two waves.⁷ Replacement rates are higher for those in the lower quartiles, though it remains the case that those with higher incomes before retirement also had higher incomes after retirement. The high replacement rates for the lower earners come about almost entirely as a result of benefit receipt – benefits replace more than half of the in-work income of the lowest earners. They include not only the basic pension but also some means-tested benefits, disability benefits and SERPS. The actual level of social security benefits does not appear to vary much by pre-retirement income level, but they clearly play a much less important part in replacing in work income for the higher earners. For them occupational pensions play a very important role, but it is only for the top quartile that they are more important than social security benefits.

The contrast between Tables a and b is interesting. In the first place, while there is substantial inequality within each group, it is clear that the early retirees were significantly better off in work than those who retired later. This may reflect both age and cohort effects in earnings profiles and the self-selection of the sample of early retirees. Both factors are also likely to be reflected in higher receipts of occupational pension income among the early retirees.

Replacement rates were only slightly lower for the early retirees than for the older cohort despite the fact that they would not have been entitled to the state retirement pension. For those with the lowest pre-retirement incomes it is remarkable to note that their social security incomes in retirement were very much the equal of the social security incomes in retirement of the older cohort. The retirement pension was not available, but other benefits – means-tested benefits and disability benefits – were available, and at a similar level. The UK does not have a formal system of state-provided early retirement benefits, but this would suggest that an informal one does operate in practice. State incomes for the higher earners were substantially less than for either the lower earners or the older retirees – but among this group state benefits are likely to increase once they become eligible for the basic pension. This suggests that the inequality between the incomes of this group of retirees is likely to increase over time.

Conclusions

The last twenty years have seen a pronounced trend towards earlier labour market exits and early retirement among men in the UK. Disability benefits and occupational pensions have both been extremely important in providing sources of retirement income for people below the state pension ages. The evidence shows an increase in coverage and levels of occupational pensions and also a trend towards starting to draw occupational pensions at younger ages.

The retirement behaviour of people with and without occupational pensions is quite different. Those with occupational pensions are less likely to leave employment before age 60 than those without, but more likely to leave employment after this age. This difference is consistent with the incentive structures in defined benefit occupational

⁷ Note that the replacement rates in Table 4 are slightly lower than those in Table 3, reflecting the fact that

pension schemes which make it attractive to stay in employment up until the scheme pension age since the level of pension will be linked to final salary. Knowing something about the rules of occupational pension schemes, and the incentives these create for employment is clearly crucial to understanding the retirement behaviour of this group.

There are clearly many important areas for research into the labour market participation of older workers and retirement in the UK. However, compared to the US and to many European countries, the necessary data, with sufficiently large sample sizes on the older age groups has been lacking. In planning a new longitudinal survey on ageing, the lessons from the Retirement Survey are to get the sample sizes right, and also to collect sufficient information on pension scheme rules which are clearly crucial to understanding retirement behaviour.

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A1: Employment trends (%)

Year	Aged 25-49				Aged 50-64 (men)/ 50-59 (women)			
	Full-time	Part-time	Selfemp	Not working	Full-time	Part-time	Selfemp	Not working
Men								
78	83.0	0.8	9.4	6.7	75.7	1.6	6.5	16.2
79	83.3	1.1	9.4	6.2	76.4	1.1	6.5	16.0
80	81.5	1.1	9.7	7.8	75.6	1.6	7.4	15.5
81	76.5	1.5	11.2	10.8	68.0	1.4	7.5	23.1
82	76.1	1.5	10.3	12.1	64.6	1.7	7.8	25.9
83	74.3	1.0	12.1	12.6	58.6	1.3	8.2	31.9
84	73.6	1.3	12.0	13.1	60.1	1.6	7.9	30.4
85	73.4	1.5	11.8	13.3	55.7	1.7	10.3	32.3
86	72.7	1.4	13.0	12.9	55.9	2.1	10.3	31.7
87	72.1	1.3	13.5	13.1	52.9	2.4	11.7	32.9
88	73.4	1.2	15.0	10.4	52.4	3.5	12.7	31.4
89	72.3	1.1	15.5	11.1	53.0	1.8	12.4	32.8
90	72.9	1.0	15.5	10.7	53.4	2.2	14.0	30.4
91	70.4	1.4	15.0	13.2	49.2	1.7	12.9	36.2
92	66.8	1.4	14.5	17.2	48.0	2.0	12.7	37.3
93	66.7	1.7	14.4	17.2	43.5	2.8	13.5	40.2
94	67.8	1.5	14.0	16.6	45.6	3.6	15.2	35.6
95	68.8	1.5	14.5	15.2	41.5	4.2	15.1	39.2
96	68.5	1.4	13.8	16.2	45.5	4.0	13.2	37.3
Women								
78	30.6	28.8	3.4	37.2	30.1	27.0	2.0	40.9
79	30.1	30.0	3.4	36.5	31.9	26.5	2.3	39.2
80	29.3	31.3	3.9	35.6	32.0	27.6	2.1	38.3
81	28.6	29.8	3.8	37.8	28.9	27.9	2.4	40.9
82	27.1	29.8	3.9	39.3	27.0	26.4	2.3	44.3
83	27.1	28.5	4.6	39.7	27.6	27.7	2.9	41.7
84	28.4	30.6	4.0	37.1	25.9	26.6	2.0	45.5
85	30.0	29.4	4.3	36.2	25.6	25.6	2.9	45.9
86	30.9	29.5	3.9	35.7	28.2	24.8	3.8	43.2
87	33.8	27.8	4.8	33.6	24.7	28.8	4.5	42.1
88	33.1	29.0	5.6	32.4	27.0	26.0	4.1	42.9
89	35.6	28.1	5.6	30.7	27.2	27.3	4.6	40.9
90	37.7	28.7	4.7	28.9	24.1	32.3	4.4	39.1
91	37.1	26.7	5.7	30.5	28.3	27.5	3.0	41.2
92	36.4	26.7	5.6	31.4	28.1	26.6	4.0	41.3
93	36.3	25.9	5.2	32.6	27.5	26.9	3.7	41.9
94	36.7	27.2	4.8	31.3	29.6	27.0	4.2	39.2
95	39.5	26.1	4.8	29.6	27.2	25.7	4.9	42.2
96	38.9	26.3	4.3	30.5	27.4	28.0	5.5	39.1

Figure 1: Participation rates

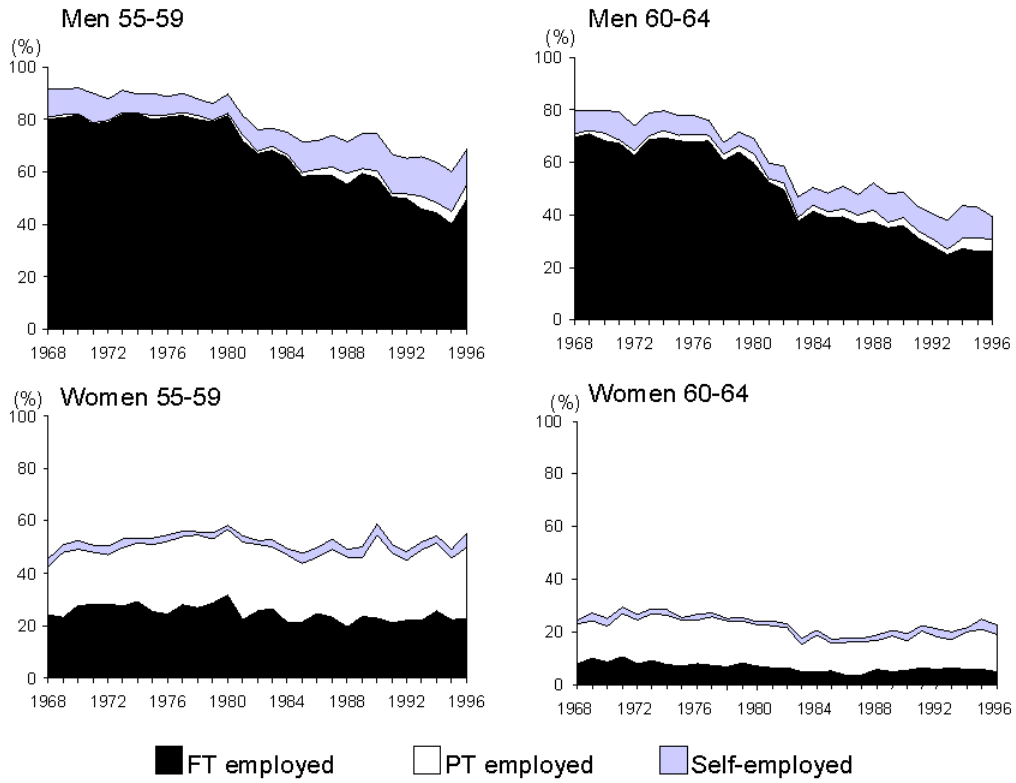


Figure 2: What men out of work are doing

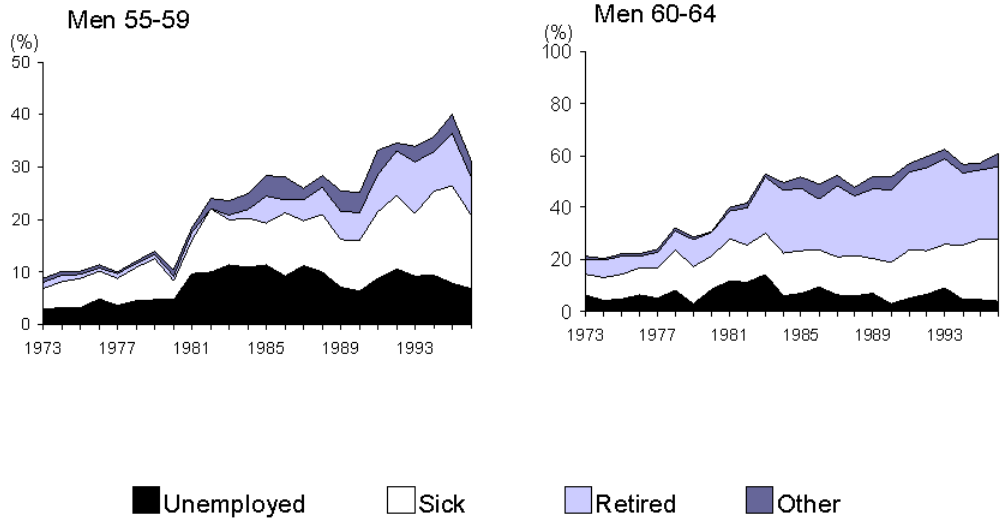
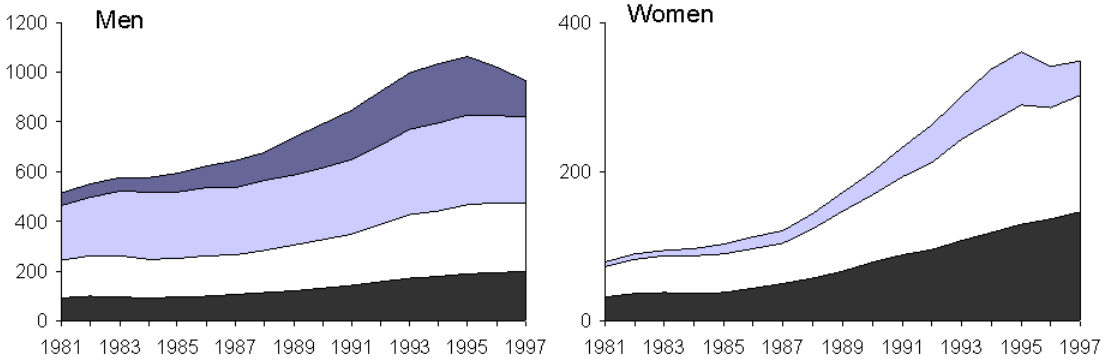


Figure 3: numbers in receipt of invalidity benefit/ incapacity benefit



■ 50-54 □ 55-59 ■ 60-64 ■ 65+

Figure 4: cohort profiles

Men



Women

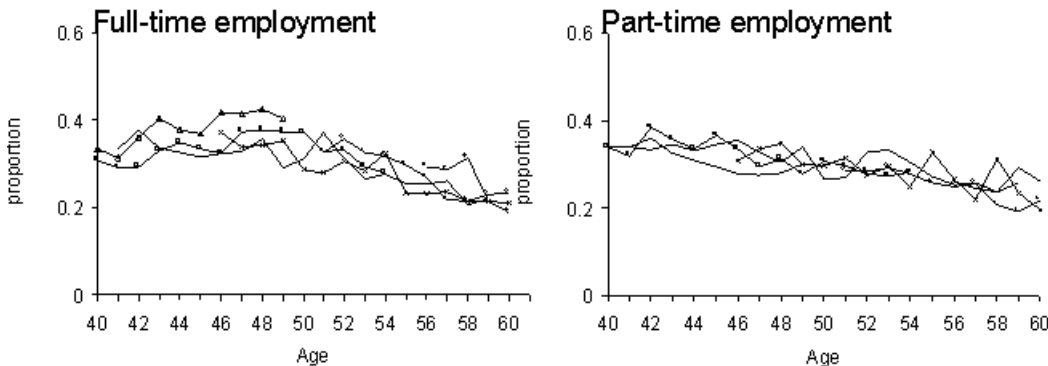


Figure 5: Survival probabilities in work



Figure 6: survival probabilities, by pension status

