

ORIGINAL ARTICLE

Has the participation of older employees in the workforce increased? Study of the total Swedish population regarding exit from working life

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Abstract

Aims: This study investigated: (i) the workforce participation in Sweden among older employees before and after changes in eligibility for sickness absence and unemployment compensation by a social insurance reform; and (ii) absence and early exit mechanisms from the workforce for different professions by looking at sickness benefits, disability pension and unemployment, early statutory pension, employment pension and unregistered economic supply. **Methods:** A register-based follow-up study of the total Swedish workforce population of 55–64-year-olds, measured in 2004 and 2011. **Results:** The total proportion of individuals aged 55–64 in the workforce increased between 2004 and 2011, but the increase was mostly in professions with lower educational requirements, a lower salary and dominated by women. Both in 2004 and in 2011, men in professions with higher educational requirements more often exit working life with an early statutory pension and employment pension. In contrast, professions with lower educational requirements more often absence working life with sickness benefits, disability pension and unemployment compensation than other professions in both 2004 and 2011. **Conclusions:** The change in regulations seems to have contributed to an overall shrinking proportion of individuals within the sickness benefit and disability pension schemes. At the same time the proportion of individuals taking an early pension has increased. The results indicated a tendency of passing on the costs of labour-market exit within different economic compensation arrangements, as well as to the individuals themselves; for example, less sickness benefit, disability pension, but more statutory pension and employment pension earlier.

Key Words: Workforce participation, older worker, retirement, sickness benefit, disability pension, register study

Introduction

Societal development and medical advances during the last centuries have led to more people living to an advanced age in general, and the elderly population is increasing in most industrialised countries. These demographic changes are also mirrored in the workforce population [1–7]. In addition, there was a social insurance reform in 2008 in Sweden.

That affected and decreased the possibility of entitlement to sickness benefits and disability pensions [4]. Europe also experienced the most severe economic crisis in a long time, which strongly impacted labour markets and European citizens. For that reason, we want to study the ways in which the older workforce exits work.

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The overall aim of this study is to investigate if workforce participation increased among employees aged 55–64 in Sweden. The aim was also to study if there was a change in exit patterns from working life before and after the social insurance reform of 2008 in Sweden. The specific research questions were: Is there a change between 2004 and 2011 regarding sickness benefits, disability pensions and unemployment among employees aged 55–64? Is there a change between 2004 and 2011 regarding early statutory pensions, employment pensions and unexplained drops in income among employees aged 55–64? What exit patterns from the workforce are there in the age group 55–64 years for different professions before and after the social insurance reform of 2008?

Background

Despite a better general level of health in the population, there are still differences in health and life expectancy between different groups in the EU. The number of healthy living years remaining at the age of 65 in EU member states in 2012 was on average 8.5 years for men and 8.7 years for women [1]. It was the shortest in the Slovak Republic for both men and women and the greatest in the Nordic countries (Sweden, Denmark, Norway and Iceland) and in Malta. The average age of exit from the workforce in the EU-27 was 61.5 years in 2010 [6]. However, it is difficult to directly compare retirement ages in different countries because every country has its own statutory pensions system and they are not similar to each other. The statutory retirement age in Sweden has been 67 years old since 2000. However, the average retirement age in Sweden, for example, is about 63.9 years, and over 80% of people leave the workforce at the age of 65 or earlier [3]. To cope with the burden of an aging population many countries have proposed reforms to increase working-life participation to a greater age [3,6,7].

Between 2004 and 2011 the Swedish population increased by 5%. At the same time, the total workforce engagement in Sweden increased by 7% (men 8% and women 6%). In the age group 55–64 years the proportion of those engaged in the workforce increased by 4% from 2004 to 2011 (men 5% and women 4%). The total proportion of individuals aged 55–64 engaged in the Swedish workforce was 69% in 2004 (men 71% and women 67%) and 73% in 2011 (men 76% and women 69%). The workforce participation in the age group 20–34 years was 72% in 2004 (men 75% and women 70%) and 74% in 2011 (men 76% and women 71%). In the age group 55–64 of those not participating in the Swedish

workforce the proportion increased from 33% in 2004 (men 34% and women 32%) to 34% in 2011 (men 36% and women 33%).

Earlier research stated that some factors seem to encourage and push people to absence from work, while others attract and pull workers to leave and exit the workforce [8,9]. Good economic compensation in the statutory pension and employment pension could attract and pull older workers to leave working life [10]. Health is described as one of the most important factors for an individual to be pushed to leave working life [2,8–18.]. In addition, a poor working environment, unemployment and economic downturn, austerity policies or other financial circumstances could push individuals out from their working life [8,9]. Sick leave and health insurance has been reformed in many states in the direction of less generous benefit levels in order to maintain social welfare by decreasing the duration of absence hours in the workforce. However, one's personal financial situation, a decreased possibility of benefits for health insurance and a disability pension could force people with poor health to stay at work to an older age. Aging in general makes people physically weaker and the proportion of diagnoses increase within old age [11]. There are middle-aged and older people who are worn out by hard work and who, for health reasons, cannot manage a full working life [3]. The elderly also need more time to recover from sickness. Every employed person needs to be a top performer and, therefore, the elderly could be pushed out from the workforce when times are bad for organisations and enterprises. Educational status is also important to working-life participation and to health. Individuals with only compulsory education have more than five years shorter remaining life expectancy than people with higher education in Sweden [19]. Highly educated elderly people have better health and their health does not decrease as rapidly with increasing age as among those with a limited education [16]. There is also a social gradient and a gender-based difference in withdrawal from working life [3,19,20,21]. The professions with the highest average age for withdrawal, both for men and women, are senior officials, politicians, specialist teachers and specialist nurses [22].

Methods and materials

Study population and design

This study is methodically based on the Swedish population register, data from Statistics Sweden (SCB) and the Swedish national labour statistics, and it includes two groups. The inclusion criterion in

the study was all employees in Sweden who had an occupational definition and who were 55–64 years of age in 2004 or in 2011. The population in the two groups was limited to individuals who in 2001 and in 2004, respectively, were registered as working in the Swedish labour market and were gainfully employed (including self-employed). The individuals included in the study were classified in the age bracket 52–61 in 2001 for the outcome age 55–64 in 2004, and aged 52–61 in 2008 for the outcome age 55–64 in 2011. Data on the individuals' professions came from the Swedish national labour statistics and refers to their main occupation. An individual who was classified as a participant in 2001 or in 2008, but died or emigrated between 2001 and 2004 or 2008 and 2011, respectively, was excluded from the study population. Finally, 773,000 individuals were included in the study population for 2004, and 788,000 for 2011.

The study populations' professions were classified within the Swedish Standard Classification of Occupations (SSYK). This classification includes sub-groups of professions which are classified with numbers down to a three-figure code (SSYK3). Professions included in this study are classified with the first figure in the code as a profession field:

- 1 – Legislators, senior officials and managers;
- 2 – Professionals with theoretical specialist competence;
- 3 – Technicians and associate professionals;
- 4 – Clerks and service management;
- 5 – Service workers, health and care workers, and shop sales workers;
- 6 – Skilled agricultural and fishery workers;
- 7 – Craft and related trades workers;
- 8 – Plant and machine operators, assemblers, transport workers;
- 9 – Elementary occupations and professions without specific occupational education.

Statistical analysis

The date was defined and analysed together with SCB. The outcome variable was individuals aged 55–64 in different professions regarding: (i) "Absence" from working life; and (ii) "Exit" from the workforce. The definitions of these two variables are as follows:

"Absence": Health problems, poor working environment, unemployment and economic downturn, austerity policies or other financial circumstances that could push individuals to absence from their working life [8,9]. In this study, therefore, we investigate the absence from working life in the oldest age group via grouping (i) sickness benefit, (ii) disability

pension and (iii) unemployment, into the variable "Absence". In the oldest age group some individuals could have problems in returning to employment after absence from working life by sickness benefit, disability pension and unemployment. Absence in the oldest age group could, therefore, in reality, be an exit from working life, but within a different social compensations system than retirement. Absence from working life is, therefore, an interesting aspect for fully understanding the idea of an extended working life.

"Exit": Good economic compensation in the statutory pension and employment pension could attract older workers to exit working life; for example, in acting as a pulling factor [8–10]. In this study we investigated the pulling factors by grouping (i) early statutory pension, (ii) employment pension and (iii) unregistered economic supply, into the variable "Exit".

The SBC's definition of the variables we included in the "Absence" and "Exit" variables was:

- (i) Sickness benefit is defined by the number of average days with economic compensation for sickness from the National Insurance Society.
- (ii) Disability pension is defined by the number of average days with economic compensation for disability from the National Insurance Society.
- (iii) Unemployment is defined by the number of days in unemployment or days in labour market policy education or activities that are not considered to be an employment.
- (iv) Early statutory pension is defined by the start of statutory pension at the age of 61–64 years. In Sweden it has been possible to receive statutory pension from 61 years of age since 2000. However, if the individual remains in working life until a greater age the economic compensation in the pension increases. After 67 years of age it is up to the employer to decide if they want the individual to continue in work.
- (v) Employment pension is defined by the commencement of economic compensation from a pension insurance linked to an individual's employment. The employment pension is paid to the retirement system by the employer. The size of this pension will depend on the collective agreements that the trade union, to which you belong, has signed with your employer. However, the employer can also contribute to the employment pension by an individual agreement, that is,

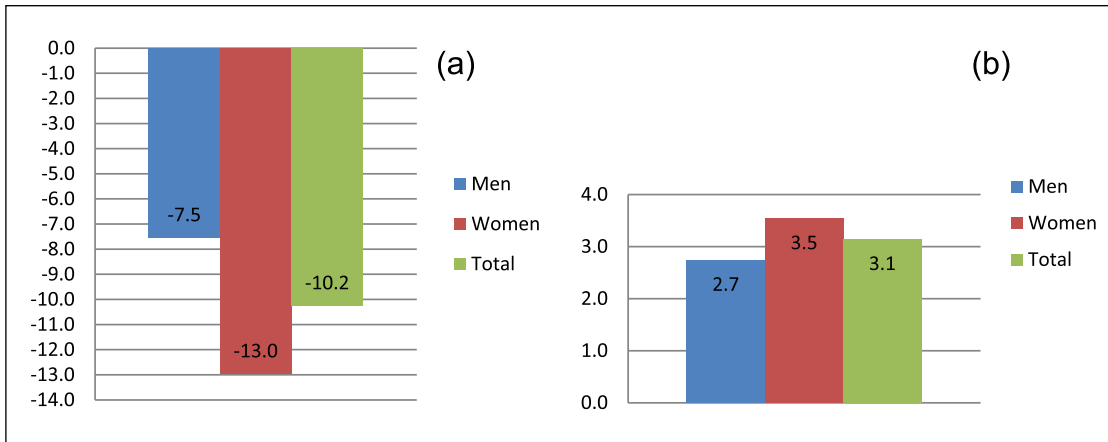


Figure 1. Percentage change, from 2004 to 2011, in the 40 most common professions in Sweden: (a) total average days of sickness benefit, disability pension and unemployment; (b) total percentage of those taking early statutory pension, employment pension or leaving the workforce with an unregistered economic supply.

without collective agreements with any trade union organisation.

- (vi) Unregistered economic supply is defined as unexplained income drop and, over the course of two years before the time of measuring, having no salary or an income of less than 80% of the income earned the year before the time of measuring (without requiring sickness benefit, disability pension, unemployment, early statutory pension or employment pension).

Results

Individuals could leave the workforce in different ways. Sickness benefit, a disability pension and unemployment are mostly out of the individual's control – for example, diseases or labour market problems – and they are mostly associated with older workers being pushed to absence from the labour market. Early statutory pension, employment pension or an unregistered economic supply are mostly associated with if older workers are pulled to exit the labour force or not, by economic incentives reasons. Therefore, the material was clustered into two groups. The analyses showed that the total average number of days involving sickness benefit, disability pension and unemployment had decreased by 10% from 2004 to 2011 in the age group 55–64 (Figure 1).

At the same time, the total percentage of those taking an early statutory pension, an employment pension or having an unregistered economic supply increased by 3% from 2004 to 2011 (Figure 1). The change was greater among women than men.

In the next step a list of the most common professions among men and women aged 55–64 was

prepared, and the 40 most common professions were chosen for the ongoing analysis, to investigate if there was a gender and a profession difference.

Women aged 55–64: average number of days of sickness benefit, disability pension and unemployment

The analyses showed that, on average, 32% of the working days were absence days because of sickness benefit, disability pension or unemployment among Swedish women aged 55–64 in 2004 (Figure 2). By 2011 this had decreased, and 19% of the working days were absence days from working life because of sickness benefit, disability pension or unemployment. There was also a difference among different professions for women in the total average number of days of sickness benefit, disability pension and unemployment. The groups that had the highest average number of absence days from working life due to sickness benefit, disability pension or unemployment in 2004 were: manufacturing labourers; other sales and services elementary occupations; assemblers; and helpers and cleaners. The average number of absence days due to those reasons in those professions had in general decreased by 2011. However, the highest number of absence days was still the highest in those professions in 2011, together with the groups: helpers in restaurants; shop and stall salespeople and demonstrators; stores and transport clerks; and cashiers, tellers and related clerks. Those who had the lowest number of average absence days from work due to sickness benefit, disability pension and unemployment in 2004 were the groups: other specialist managers; college, university and higher education teaching professionals; archivists,

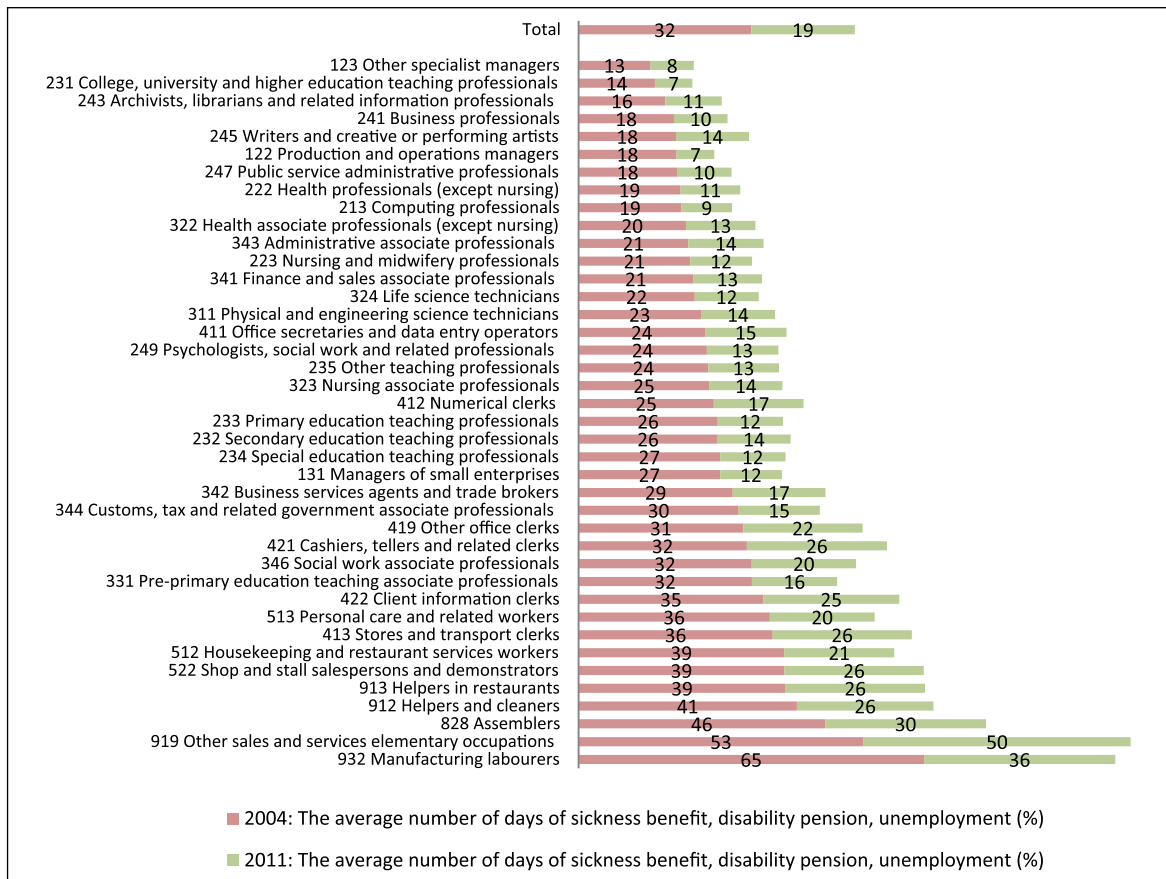


Figure 2. The average number of days of sickness benefit, disability pension, or unemployment in 2004 and 2011, in percentages, in the 40 most common SSYK3 professions for Swedish women aged 55–64.

librarians and related information professionals; and business professionals. These occupations, together with production and operation managers, and computer specialists, also had the lowest number of average absence days from working life for these reasons in 2011.

Proportion of women aged 55–64 who left the workforce with an early statutory pension, employment pension or unregistered economic supply

In the next step the 40 most common professions among women aged 55–64 in 2004 and in 2011 were analysed regarding early statutory pension, employment pension and unregistered economic supply. The analyses showed that, in 2004, there was an average of 9% of Swedish women aged 55–64 who were early statutory pensioners, employment pensioners or who had an unregistered economic supply (Figure 3). In 2011 this had increased, and 13% of the women aged 55–64 had, on average, taken early statutory pension, an employment pension or had an unregistered economic supply.

The highest average number of these women taking early statutory pensions, employment pensions or who had an unregistered economic supply in 2004 were in the following professions: cashiers, tellers and related clerks; finances and sales associate professionals; other specialist managers; and business professionals. In 2011, these professions still had the highest average number of women with an early statutory pension, employment pension or unregistered economic supply, together with the following professions: customs, tax and related government associate professionals; and administrative associate professionals. The lowest number of women with an early statutory pension, employment pension or unregistered economic supply in 2004 was in the following professions: manufacturing labourers; assemblers; social work associate professionals; pre-primary education teaching associate professionals; psychologists, social work and related professionals; personal care and related workers; and life sciences technicians. There was an increase in the percentage of those working in these professions who took an early statutory pension, an employment pension or who had an unregistered economic supply, but

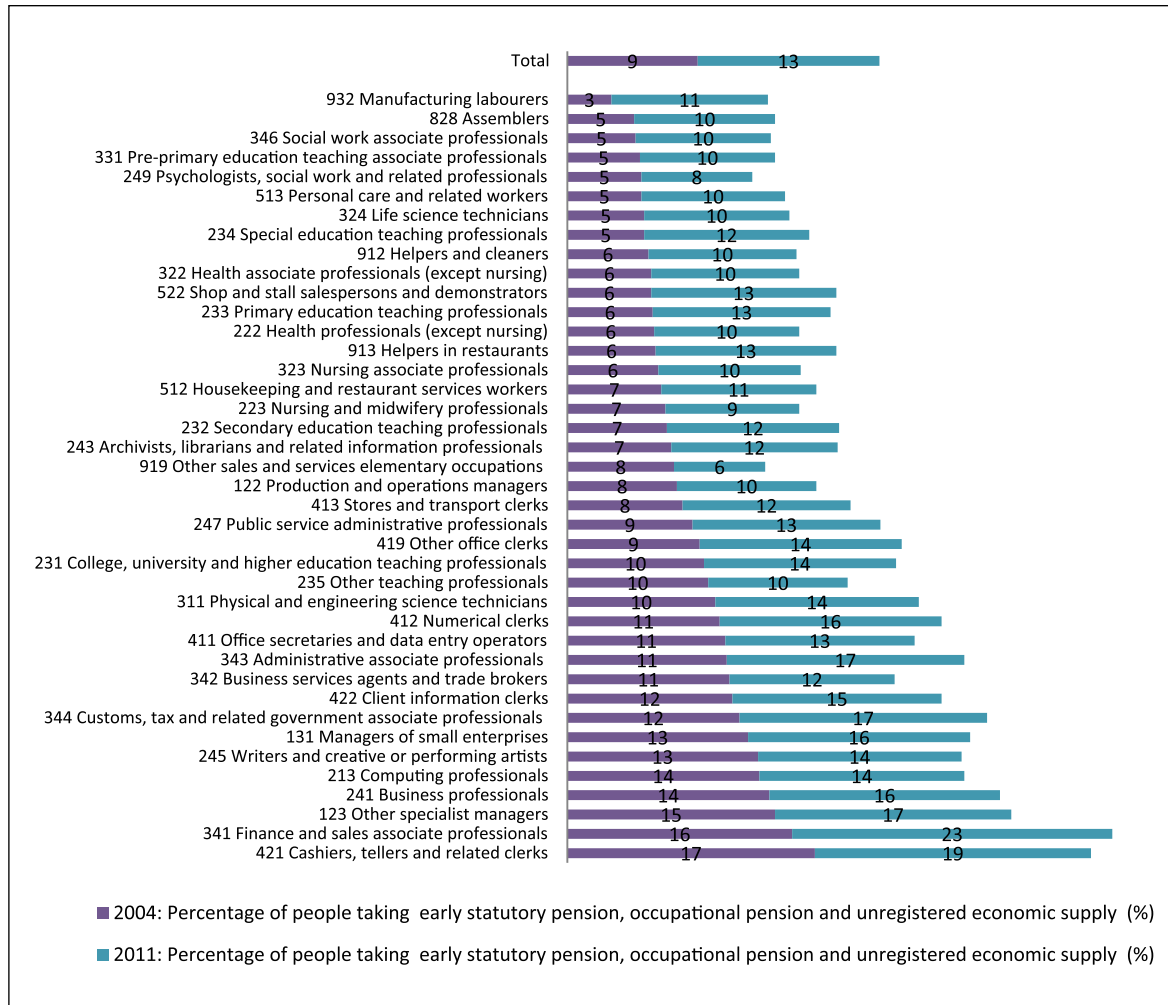


Figure 3. Percentage of people taking an early statutory pension, employment pension or having an unregistered economic supply in 2004 and 2011, in the 40 most common SSKY3 professions for Swedish women aged 55–64.

they were still among the professions with the lowest percentage. There was also one profession with no increase – other teaching professionals. The only profession with a decreased percentage of early statutory pensions, employment pensions and unregistered economic supply were other sales and service elementary occupations.

Men aged 55–64: average number of days of sickness benefit, disability pension and unemployment

In the next step the same procedure was applied for the analysis of men aged 55–64 in 2004 and in 2011. The analyses showed that in 2004 there was an average 22% of working-day absences because of sickness benefit, disability pension or unemployment among Swedish men aged 55–64 (Figure 4). By 2011 this had decreased, and 14% of the working days were

absence days from working life because of sickness benefit, disability pension or unemployment. There was also a difference among different professions in the men’s total average number of days of sickness benefit, disability pension and unemployment. The groups that had the highest average number of absence days from working life due to sickness benefit, disability pension or unemployment in 2004 were: manufacturing labourers; other sales and services elementary occupations; painters, building structure cleaners and related trades workers; other machine operators and assemblers; and metal moulders, welders, metal workers, and related trades workers. The average number of absence days due to these reasons had in general decreased by 2011. Nevertheless, these professions, together with market gardeners and crop growers, still have the highest number of absence days compared with other occupations in 2011. Those who had the lowest average

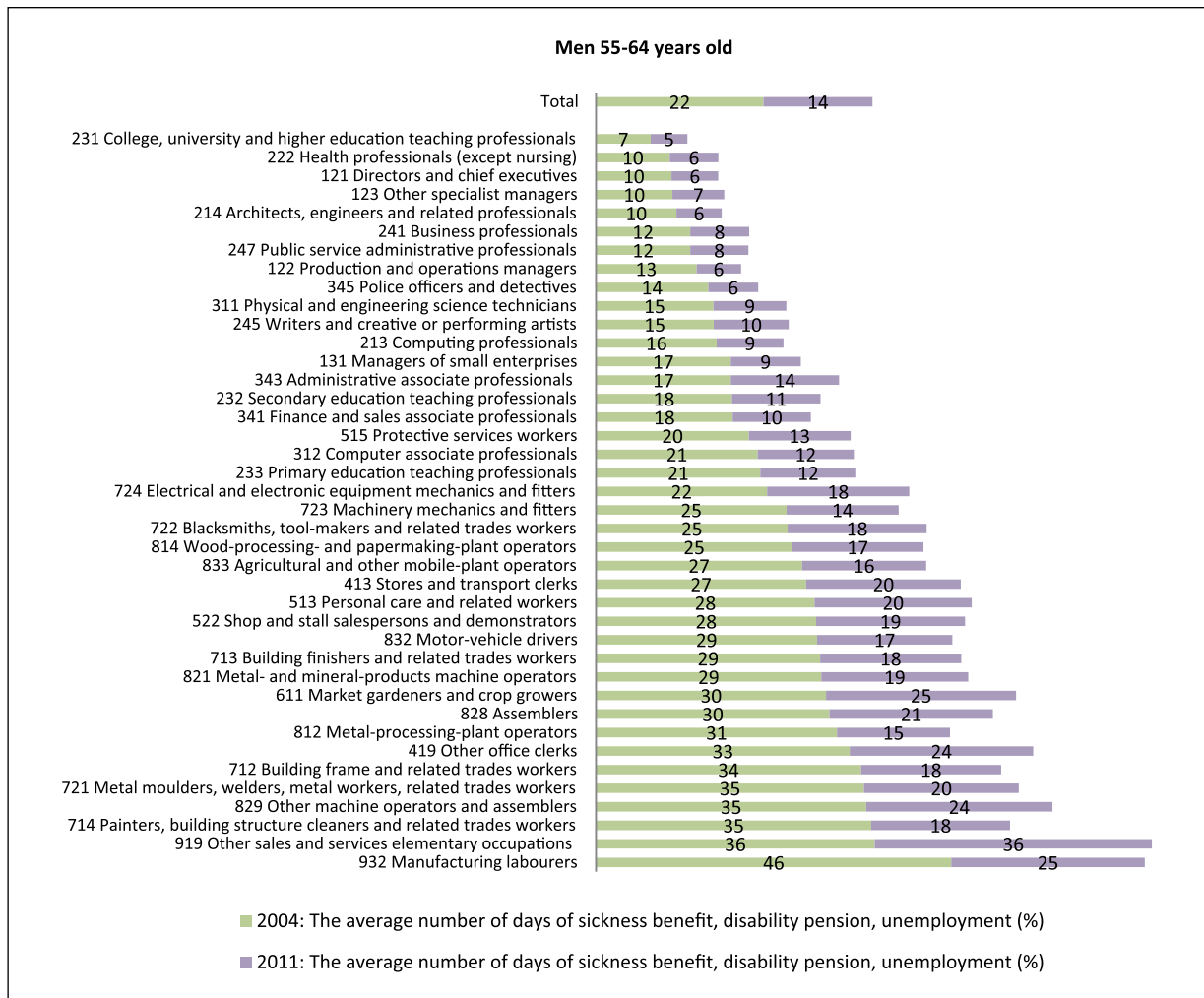


Figure 4. The average number of days of sickness benefit, disability pension, or unemployment in 2004 and 2011, in percentages, in the 40 most common SSYK3 professions for Swedish men aged 55–64.

number of absence days from work due to sickness benefit, disability pension and unemployment in 2004 were: college, university and higher education teaching professionals; health professionals (except nursing); directors and chief executives; and other specialist managers. These professions also had the lowest average number of absence days from working life for these reasons in 2011, together with the following professions: architects, engineers and related professionals; production and operations managers; and police officers and detectives.

Proportion of men aged 55–64 who left the workforce with an early statutory pension, employment pension or unregistered economic supply

In the next step the 40 most common professions among men aged 55–64 in 2004 and 2011 were

analysed regarding early statutory pension, employment pension and unregistered economic supply. The analyses showed that, in 2004, there was an average of 12% of Swedish men aged 55–64 who were early statutory pensioners, employment pensioners or who had an unregistered economic supply (Figure 5). By 2011 this had increased, and an average of 14% of men aged 55–64 had taken early statutory pension, employment pension or had an unregistered economic supply.

The highest average number of men with an early statutory pension, employment pension or unregistered economic supply in 2004 was in the following professions: directors and chief executives; managers of small enterprises; business professionals; and protective services workers. By 2011, these professions still had the highest average number of men with an early statutory pension, employment pension or an unregistered economic supply, together with police

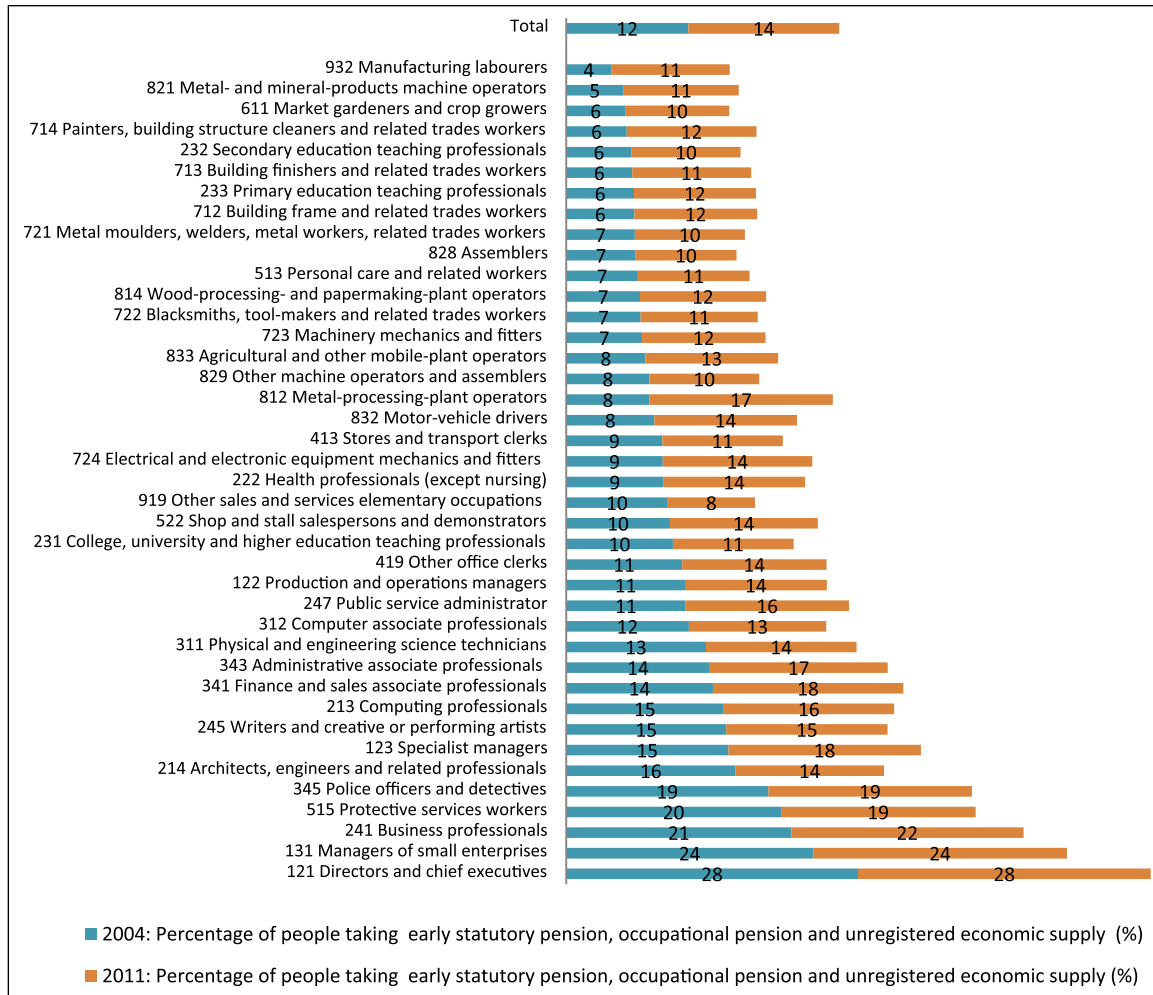


Figure 5. Percentage of men with an early statutory pension, employment pension or unregistered economic supply in 2004 and 2011, in the 40 most common SSK3 professions for Swedish men aged 55–64.

officers and detectives. The lowest number of men taking an early statutory pension, employment pension or with an unregistered economic supply in 2004 was in the following professions: manufacturing labourers; and metal- and mineral-products machine operators. By 2011, these professions had an increased percentage of men with an early statutory pension, employment pension or unregistered economic supply, but they were still among the professions with the lowest percentage, together with the following professions: market gardeners and crop growers; secondary education teaching professionals; metal moulders, welders, metal workers, related trades workers; assemblers; and other machine operators and assemblers. In the profession metal-processing-plant operators, there was mostly an increase in the average number of men with an early statutory pension, employment pension or unregistered economic supply between 2004 and 2011. Other sales and services elementary occupations were the only

professional group with a decrease in the number of men with an early statutory pension, employment pension or unregistered economic supply between 2004 and 2011.

Discussion

Many countries have proposed a general postponement of the retirement age to cope with the burden of the aging population on the social system [3,5–7,23]. The overall aim of this study was to investigate if there was a change in workforce participation for employees aged 55–64 from 2004 to 2011 in Sweden. Although workforce participation increased more in the oldest age group from 2004 to 2011 compared to the youngest age groups. This was also during the time of a social insurance reform in 2008, for instance. However, the proportion of people in the age group 55–64 in the total number of those not participating in the workforce was greater in 2011 than it was in 2004.

Consequently, the workforce participation in this oldest age group was not as high as among the youngest age groups. The change in regulations by the reformed sick-leave process for increased return to work in 2008 contributed to an overall shrinking proportion of individuals within the sickness benefit and disability pension schemes between the years [4]. The results stated less sickness benefits and disability pensions from 2004 to 2011, but more early statutory pensions and employment pensions. This indicated a passing on between different social economic compensation arrangements between those years. Whilst the proportion of absents decreased, individuals' exits increased. In the Swedish pension system, an early pension means a lower pension, which is most problematic to those with the lowest salary. There is a threshold in the system and those with the highest salary do not receive as high a pension compensation as their salary. Our results indicated that managers and highly educated professionals were more often attracted to an exit from working life and were pulled out of it by an early statutory pension and employment pension. You can also take early pension whilst continuing to work and subsequently get a higher pension. At the same time, the results indicated that professionals with a lower level of education were more often caused to exit working life as a result of sickness benefit, disability pension and unemployment.

Earlier studies have stated that health problems, a poor working environment, unemployment and bad times for organisations encourage and push older workers to leave the workforce. Push factors such as sickness benefit and disability pension, together with unemployment, are described as mostly out of the individuals' control [9,10]. On the other hand, pull factors, such as early statutory pension and employment pension, are more feasible for the individual to regulate. However, if the possibility of getting statutory sickness and disability compensation is regulated in order to increase work participation among people inside those compensation systems, some individuals who do not think they can work or who do not want to work will maybe choose other compensation possibilities to withdraw from a problematic working life.

This study observed no change regarding the variances in working-life exit patterns in relation to education and hierarchical position in the organisation from 2004 to 2011. Earlier studies also noted this educational and hierarchical difference [19,20,21]. However, there was, in general, a greater decrease regarding sickness benefit, disability pension and unemployment in professions with lower educational requirements. Therefore, this study would appear to conclude that factors which encourage or "push"

individuals out of the workforce seem mostly to concern professions with a lower level of education and a lower salary.

Health is one of the most important factors for inclusion in working life, but an early exit age from working life can only, to a certain extent, be explained by differences in health [8–18]. Despite social development in general, there are still differences in health and life expectancy between different socio-economic groups. These differences have also increased slightly since 2000 [3]. Moreover, individuals who are 30 years and older with only compulsory education have more than five years shorter remaining life expectancy than people with a higher level of education [19]. On the other hand, highly educated older workers have better health and their health does not decrease as rapidly with increasing age as among those with a limited education [24]. The analysis found that the total average number of days of sickness benefit, disability pension and unemployment had decreased by 10.2%. The proportion of people aged 55–64 with good health had also increased during this time period, but only by six percentage points [25]. However, this could also indicate that many individuals had to go to work despite their health problems after the social insurance reform in Sweden, which made it more difficult for workers to get sickness benefit and disability pension. In addition, some may have had to pay themselves for the working-life demands on their health after the social insurance reform. We do not know how this contributes to the number of people taking an early pension, which has increased rapidly for those in professions that had previously received sickness benefit and a disability pension.

The total percentage of people with an early statutory pension, employment pension or an unregistered economic supply had not decreased; instead, it had increased by 3.1% from 2004 to 2011. A paradox was that the professions with a lower number of people taking an early pension were, in general, those working in highly physically demanding work environments. These professions also have, in general, a lower level of education and, therefore, in general, also an earlier entrance into the workforce; that is, they have worked for a longer time. At the same time, the professions with the highest number of people taking earlier statutory retirement were mostly those with a higher level of education and a higher average salary. After the reform, the number of people taking an early pension increased the most among those with a lower level of education. However, these numbers still do not reach the level of people taking an early pension among managers and professions with a higher level of education. Accordingly, despite a longer time in working life, those with less education

do not take an early pension as often as those with more education. This paradox can partly be explained by limited possibilities to take economic risks in lower socio-economic groups [10,14,26]. The Swedish statutory pension system is partly a result of individuals' income levels and it is possible to take one's pension from 61 years of age, but it provides a higher economic benefit if retirement is delayed until 67 years of age. Those with a lower salary could, therefore, receive a low statutory pension and would have to decrease their economic standards if they leave and take early retirement, while those professions with a higher salary are not in such an exposed economic situation.

Those professions with the highest amount of sickness benefit and disability pension in 2004 had decreased this amount by 2011, but the number of those taking early statutory retirement had increased. The trend of how to finance withdrawal from working life seems to shift between 2004 and 2011. In addition, those who dislike their work make greater financial sacrifices if they intend to retire early [27–30]. However, to polarise the exit from the workforce between “push” and “pull” seems to be too rudimentary. Retirement is not only about personal economic planning and, consequently, it is of importance to research this further in a future study, to explain the decrease in sickness benefit and disability pension in the age group 55–64 years and the possibility of working until a later age. Earlier research has stated that factors affecting one's retirement decision are more complex and include: personal health in relation to the work environment/situation; personal economics; social inclusion in a particular context; and the motivation at work and for the tasks required [11,15,18,21]. Therefore, a further study is planned, to analyse if the demands of work and the working environment changed for the better between 2004 and 2011. It would also be interesting to research the difference between those who are employed in the private or public sector and those that are self-employed.

Many countries have proposed a general postponement of the retirement age to cope with the aging population burden on the social system. However, this study has indicated that the workforce participation in the age group 55–64 years increased mostly in professions with a lower level of education, and more for women, with the tendency as a result of the social insurance reform. Promoting an extended working life is not about how to pass people on between economic compensation arrangements. It is becoming significant to have an awareness of what a delayed retirement may risk for other economic compensation systems and for the individuals' personal

economics. Factors that promote individuals being able to and wanting to work in an extended working life need to be considered. It is also important that conditions are stimulated so that managers in organisations and enterprises can and want to keep the older workforce to a higher age. A cohesive, sustainable work policy is needed for all ages to promote a sustainable working life until an older age in the future; a cohesive, sustainable working life is in the interests of society, the organisation/enterprise and the individual.

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Conflict of interest

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