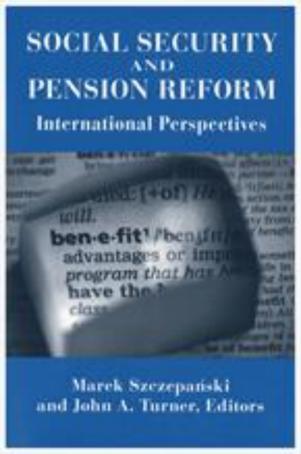
Upjohn Institute Press

Social Security and Pension Income in Sweden



Gabriella Sjögren Lindquist
Trinity College Dublin

Eskil Wadensjö
Swedish Institute for Social Research

Chapter 4 (pp. 63-100) in:
Social Security and Pension Reform: International Perspectives
Marek Szczepański and John A. Turner, eds.
Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2014
DOI: 10.17848/9780880994705.ch4

Social Security and Pension Reform

International Perspectives

Marek Szczepański
John A. Turner
Editors

2014

W.E. Upjohn Institute for Employment Research
Kalamazoo, Michigan

Library of Congress Cataloging-in-Publication Data

Social security and pension reform international perspectives / Marek Szczepanski, John A. Turner, editors.
pages cm
"This book is based largely on the 2012 conference of the European Network for Research on Supplementary Pensions (ENRSP), held at Poznan University of Technology, Poznan, Poland, on September 13-14, 2012"—Preface.
Includes index.
ISBN 978-0-88099-467-5 (pbk. : alk. paper) — ISBN 0-88099-467-3 (pbk. : alk. paper) — ISBN 978-0-88099-468-2 (hardcover : alk. paper) — ISBN 0-88099-468-1 (hardcover : alk. paper)
1. Social security. 2. Pensions. 3. Pensions—Government policy. I. Szczepanski, Marek, 1959- II. Turner, John A. (John Andrew), 1949 July 9-
HD7091.S5865 2014
331.25'22—dc23
2013043011

W.E. Upjohn Institute for Employment Research
300 S. Westnedge Avenue
Kalamazoo, Michigan 49007-4686

Cover design by Alcorn Publication Design.
Index prepared by Diane Worden.
Printed in the United States of America.
Printed on recycled paper.

4
Social Security and Pension Income in Sweden

Gabriella Sjögren Lindquist
Swedish Institute for Social Research, Stockholm University

Eskil Wadensjö
Swedish Institute for Social Research, Stockholm University, and Stockholm University Linnaeus Center for Integration Studies

From an international perspective, the poverty rate among pensioners in Sweden is low. This is explained by both the pension system, especially by the guarantee pension, and housing allowance for pensioners, as well as other parts of the Swedish welfare system. According to a comparative study of 15 European countries (van Vliet et al. 2011), Sweden has the lowest proportion of poor among the elderly, along with Luxembourg and the Netherlands. However, in Sweden many retirees have a vulnerable position with a standard only slightly above the guidelines for when social assistance may be granted. The disposable income at the 20th percentile is only slightly above the norm for social assistance. Mainly older retirees (aged 75 and older) are in this group. In the first half of the 1990s, more and more people were under the poverty line, which is defined as those who have an income of below 60 percent of the median income, but since 1998, poverty measured in this way has decreased (Gustafsson, Johansson, and Palmer 2009).

Thus, even though pensioner poverty is rare, there are good reasons for investigating who the poor pensioners are, why they are poor, and how they are likely to do in the future. The future development of pensions depends strongly on the transition that Sweden, like many other countries, has gone through from defined benefit to defined contribution pensions in both the social security pension system and the occupational pension system. This means that pensions depend on an individual's work and labor income history to a greater extent than before. To be able to receive a high pension, working in Sweden for many years is required. Concern for future pensions is also due to the fact that economic growth affects defined contribution pensions in different ways. Not least, there is concern about the fate of pensions that are based on individuals' choices of pension funds. In some other countries, this has led to a considerable reduction of the pensions for people who have already left the workforce for retirement, and some people have returned to work because of economic necessity.

In this chapter, we outline the Swedish pension system, the changes in employment among those aged 60 years and older, definitions of retirement, the data used, and the measures we use to study income differences. We then examine how the income distribution differs between pensioners and those of working age, and whether and how the difference has changed over time, and we discuss the differences in pensioner income distribution among different cohorts and men and women, and why the income gaps between pensioner groups have increased. Pension income is the main source of income for those aged 65 and older, but many also have substantial income from labor or capital, and many have assets primarily in their homes, which we also report. We then study how the level of pension income is influenced by the individual's work history, record of self-employment, and number of years in Sweden. In the last sections, we study in more detail some groups with low pension incomes. We end with a summary and offer some conclusions.

THE SWEDISH PENSION SYSTEM

To understand the income differences and their changes over time among retired people in Sweden, we give a short introduction to the structure of the Swedish pension system.[1] The Swedish pension system is a three-tier system consisting of social security pensions, occupational pensions, and personal pensions. As the system has changed a great deal since the 1990s, different cohorts belong to different pension systems, and some cohorts have pensions from different generations of pensions systems.

Social security pensions were introduced in Sweden 100 years ago in 1913. The retirement age when benefits first could be received was

67. After some minor changes to the system in the 1920s and 1930s, a major change followed in 1948, when a non-income-tested and non-income-dependent pension was introduced. This basic pension (*folkpension*) was the same for everyone except that married pensioners got a lower pension than those who were not married. An earnings-related additional pension (ATP), a defined benefit system, was introduced in 1960 and was based on the 15 years with the highest income. There was a ceiling regarding the income included for the calculation of the pension per year in the ATP system. The ATP pension required that a person work for at least 30 years in order to obtain a full pension; with fewer years of work, the pension was proportionally reduced. The normal pension age was lowered from 67 to 65 in 1976, but it was possible to take a reduced pension earlier or postpone the take-up and receive an enhanced pension at an older age. The pension benefits were price indexed.

A new social security pension system—a defined contribution system—was decided on in two steps by the parliament in 1994 and 1998 and implemented from 1999 onward. The pension contribution rate is 18.5 percent of the worker's income up to a ceiling, 16 percent of which is allocated to a notional defined contribution system, and 2.5 percent of which is for an individual account system (called the premium pension), where each individual can choose between many investment funds. The pension derived from the notional defined contribution is income indexed. Pension benefits from the notional defined contribution system can be received starting at age 61 but are higher the later they are taken (it is an actuarially fair system with respect to benefit receipt at different ages).

For those who have had no income or a low income, there is a guarantee pension. Qualification to receive this pension is based on the benefit levels from the income-related social security pension. To receive a full guarantee pension, 40 years of residence in Sweden is necessary, otherwise it is proportionally reduced. The guarantee pension is price indexed. Those aged 65 or older who have a low pension or other low levels of income and have taken up their entire social security pension may be eligible for a housing allowance.

There has been a gradual change from the old to the new social security pension system. Those born in 1937 or earlier are completely in the old system. Those born in 1938 are to 4/20 in the new system, those born in 1944 are to 10/20 in the new system and those born in 1954 are totally in the new system.[2]

When the ATP system was introduced, those employed in the public sector and white-collar workers in the private sector were already covered by occupational pension plans. These plans deliver additional income replacement for income under the ceiling and a high replacement for income over the ceiling in the social security pension system. Blue-collar workers in the private sector achieved an agreement concerning occupational pensions in the 1970s. After the pension reforms in the 1990s, the occupational pension plans were changed so that many are defined contribution plans, but there are still important defined benefit elements in all systems, with the exception of blue-collar workers in the private sector. Sweden has high occupational pension coverage of its workforce, as around 90 percent of all wage-earners are employed at workplaces with collective agreements and thus are covered by occupational pension plans.

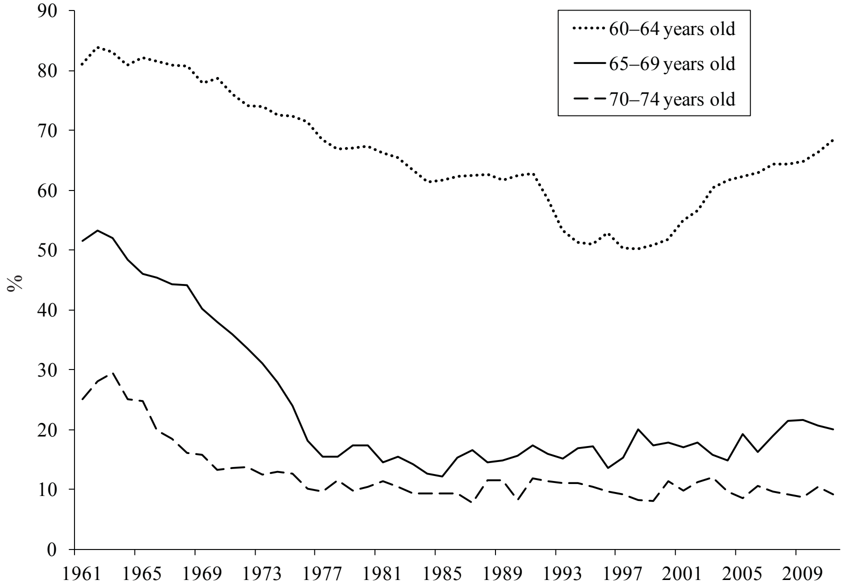
Many people also have personal pensions. There are tax reductions for savings for personal pensions, but the maximum tax reduction has gradually been reduced.

The Law of Employment Security (LAS) covers people up to age 67. Mandatory retirement under age 67 has not been allowed since 2003 (before 2003, this age was 65). In some sectors, 67 is becoming the normal age of retirement.

CHANGES IN EMPLOYMENT AMONG OLDER PEOPLE IN SWEDEN

In Sweden, it is possible to follow labor force participation and employment in labor force surveys for over 50 years. Statistics Sweden carried out its first labor force survey in 1961, after the Labor Market Board (AMS) had conducted pilot studies in 1959 and 1960. In 1961, the male employment rate was high for those aged 60–69, but this gradually declined in the mid-1990s for those aged 60 and older. The male employment rate has increased since the mid-1990s for those aged 60–64, and since 2003 for those aged 65–66. It is, however, still much lower than it was in the early 1960s (Figure 4.1).

Figure 4.1 Employment Rate for Men, 1961–2011



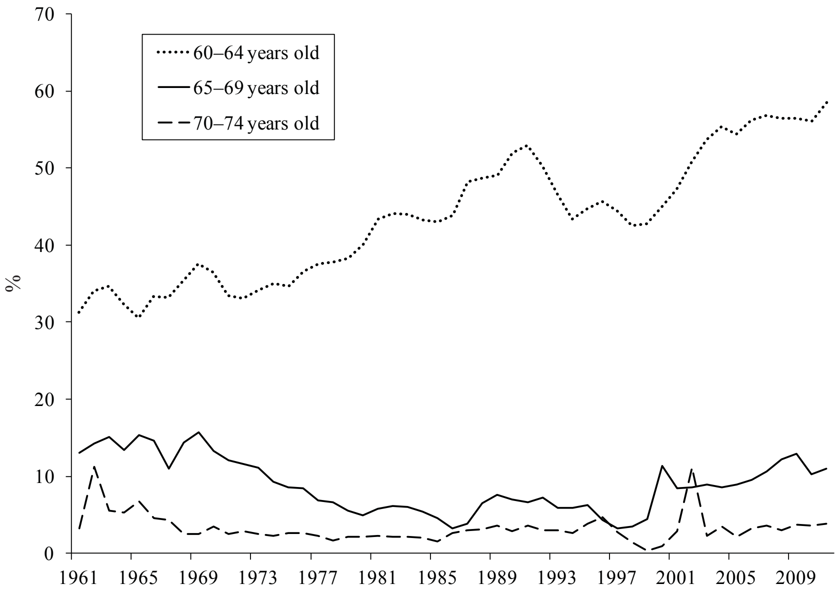
SOURCE: Updated from Wadensjö (2011).

The female employment rate was low in the early 1960s, when it was common for women to be housewives, but for those under age 65 it has gradually increased since then with some business cycle variations (Figure 4.2). The employment rate is still higher among men than women in all age groups, but the difference has gradually decreased with new cohorts and also within each cohort.

WHO HAS RETIRED?

This study deals with income distribution among pensioners. The line between being retired and being in the labor force, however, is in many cases unclear, and retirement age varies widely among individuals. Taking a pension and retiring is not the same thing. When someone

Figure 4.2 Employment Rate for Women, 1961–2011



SOURCE: Updated from Wadensjö (2011).

takes a pension it does not mean that he or she leaves the labor force—a pension from the social security system can be taken while working, and the pension is not means-tested against other pension, other income, or wealth. One definition is that someone is retired when his or her pension income exceeds the sum of labor income and unemployment benefit or other social insurance benefits.

The Swedish Pensions Agency uses four different measures of retirement in its analysis (Karlsson and Olsson 2012). The first measure is the Average Exit Age, which is the age that a person leaves the workforce, given that he or she was working at age 50. The other three measures are different average pension age measures. Average Pension Age I is the average age for taking an old-age pension (not only the individual account premium pension), Average Pension Age II includes those who receive a disability pension (taken up from age 30 or older), and Average Pension Age III also includes those receiving a disability pension, but only when they are 50 or older. Average Pension Age III is more in line with the definition of the Average Exit Age, which also has 50 as an age limit. Occupational and personal pensions are not included in the definition of pension income.

According to the Swedish Pensions Agency, in 2011 the Average Pension Ages I, II, and III were 64.6, 62.5, and 63.9, respectively.

Age limits in the pension system and in the Employment Protection Act (LAS) influence when someone leaves the workforce. The social security pension can be claimed at age 61, but the guarantee pension cannot be taken before age 65. In the next few years, it is expected that about 25 percent of new retirees will receive the guarantee pension. In 2008, 778,000 individuals had a guarantee pension, of which 180,000 (15 percent) had a full one. Of those who received a guarantee pension, 80 percent were women (Olsson 2011). Nearly half of female pensioners aged 65–69 received a guarantee pension in 2008. Housing allowances for older persons may be granted from age 65 if the full social security pension is drawn. The Employment Protection Act, on the other hand, covers employees up to age 67.

In addition to these age limits, occupational and personal pension plans have different age limits. Personal pensions and occupational pensions from the private sector (ITP and SAF-LO) and the defined contribution component of the pensions for municipal and county employees (KAP-KL) can be claimed from age 55. Employees in the public sector can take their pensions from age 61. Occupational pensions should, according to collective agreements, be taken out for retirement purposes.

In our analysis of patterns of income receipt among older persons, we chose to draw the line at age 65 for several reasons: the majority take their pensions at age 65, a guarantee pension can first be granted at age 65, the age limit for unemployment insurance and disability pension is 65, and special rules apply to those 65 years and older regarding sickness benefit and compensation from work injury insurance. In the labor market policy programs, there are no formal age limits, but those aged 65 and older are in practice not assigned to labor market programs. In addition, many (wrongly) think that the retirement age in the social security pension system is 65.

MEASURING INCOME DISTRIBUTION

When studying the income distribution and how it changes, we can use several different kinds of income measures. The most common one is the household's disposable income, that is, household market income minus taxes plus transfers (see, for example, Björklund and Jäntti [2011]). When we compare the income distribution for those who are under 65 with the incomes of those who are older, we can use both the disposable income per individual in the household and the individual household member's own disposable income. When we look more closely at the income distribution for those aged 65 and older, we can analyze different types of income and the distribution of those incomes. Here, in addition to average disposable income per person in a household, we analyze individual disposable income, pension income from the social security and occupational pension systems, and income from capital. We also study the distribution of wealth. The information on disposable income, pensions, and capital income is derived from the Longitudinal Income Database (LINDA) for the years 1982–2009 (see Kruse [2010]). LINDA consists of register data of a representative sample of the population, including information regarding the person's family. The data on wealth come from HEK (the incomes of the households), which is an annual telephone survey of a representative sample of the population (see Rosén Karlsson [2011]).

In this study, we use percentile ratios when we look at income inequality and how it has changed over time. We chose this measure rather than the often used Gini coefficient because of its simple interpretation, and because by using percentile ratios, we can investigate both the lower and the upper sections of income distribution.[3]

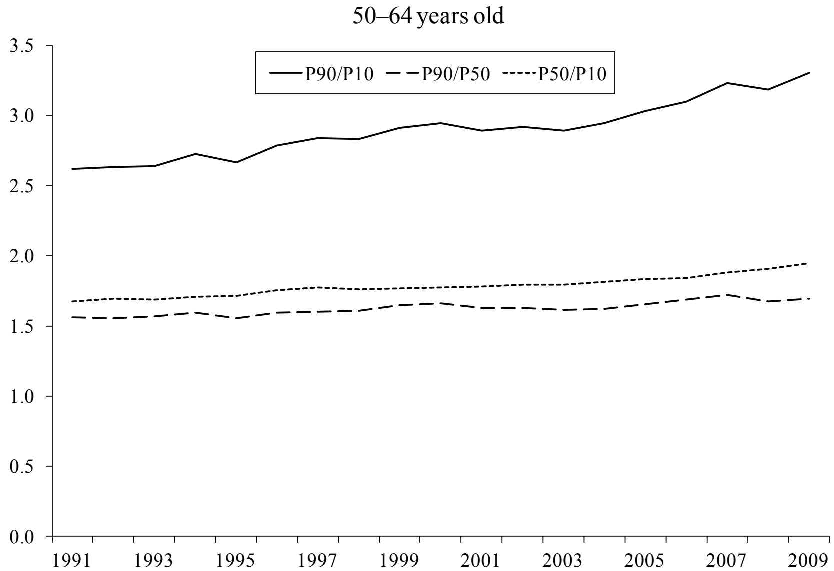
The ratio between the 90th percentile and the 10th percentile (P90/P10) shows how many times higher the income of a person with the 90th percentile income is compared to the income of a person who has the 10th percentile income. If the ratio is 2, the person with the 90th percentile income has twice as much in income as the person with the 10th percentile income.[4]

In order to investigate those with high incomes and those with low incomes, we compare the 90th and 10th percentiles with the median, P90/P50 and P50/P10, respectively. By using percentile ratios as a measurement of wage dispersion, one can examine whether income inequality increases or decreases from year to year. The measure is not influenced by general income growth.

DOES THE INCOME DISTRIBUTION DIFFER BETWEEN OLDER AND YOUNGER PERSONS?

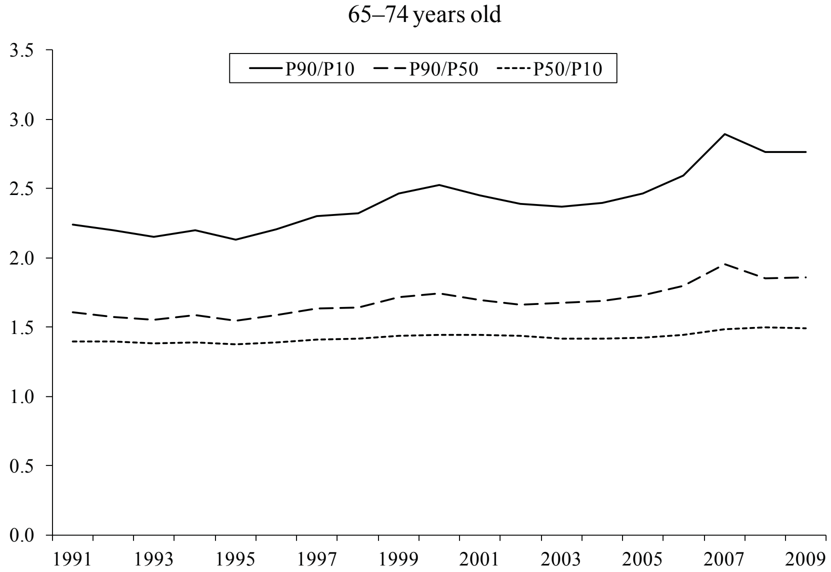
Disposable incomes are lower for those aged 65 and older than for those aged 55–64. Those aged 75 and older have particularly low incomes. Figure 4.3 shows household disposable income per person for different income groups. Income inequality has increased for those aged 50–64 and 65–74. For those aged 75 and older, the income differences have been more or less the same until the last few years. Many in this age group only receive the basic pension from the old pension system, which leads to a compressed income structure. Over the past

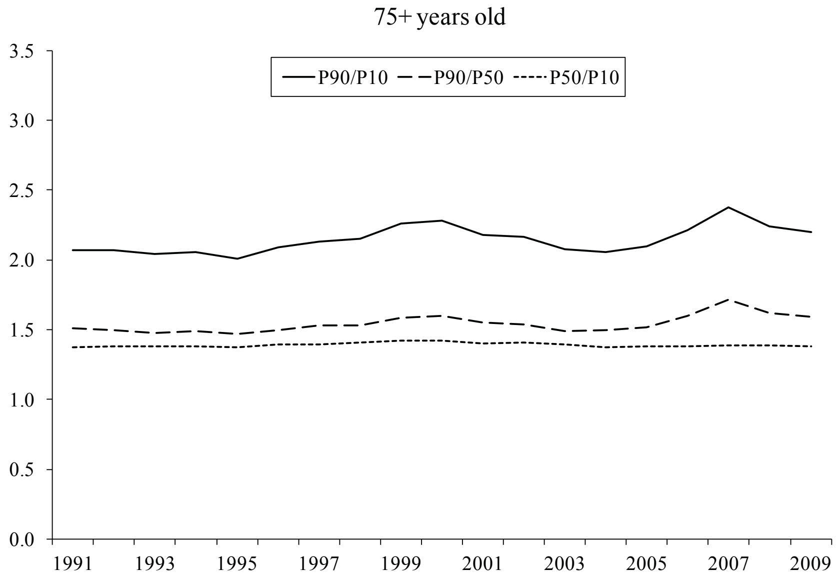
Figure 4.3 Development in Disposable Income per Person in the Household, 1991–2009



(continued)

Figure 4.3 (continued)





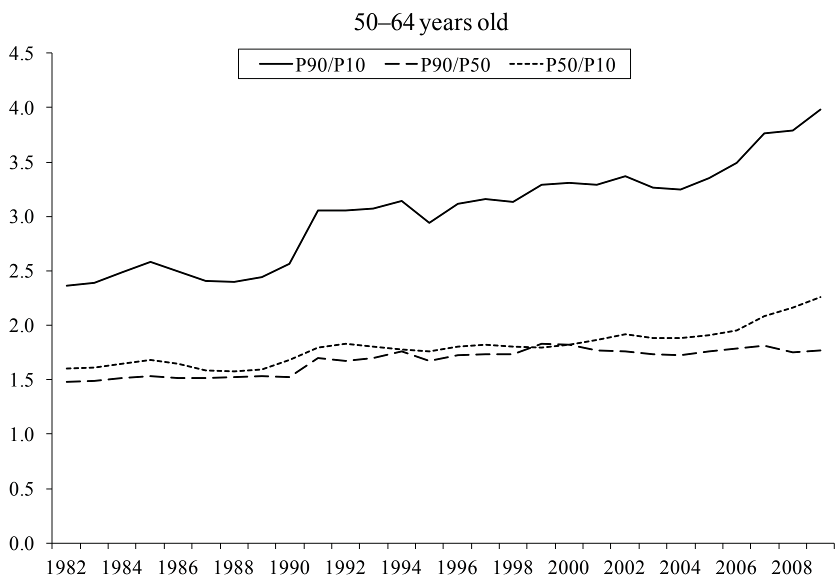
SOURCE: LINDA.

few years, however, income inequality has first increased and then decreased slightly. The share of this age group with income-related social security pensions and occupational pension systems has increased.

Having already demonstrated the changes over time in income inequality among households, Figures 4.4 and 4.5 show the disposable incomes of men and women. Income inequality for men aged 50–64 and 65–74 has increased sharply. In recent years, the trend has been particularly pronounced among those who are aged 50–64. For those aged 65–75, the income gap has mainly grown in the upper part of the distribution (P90/P50).

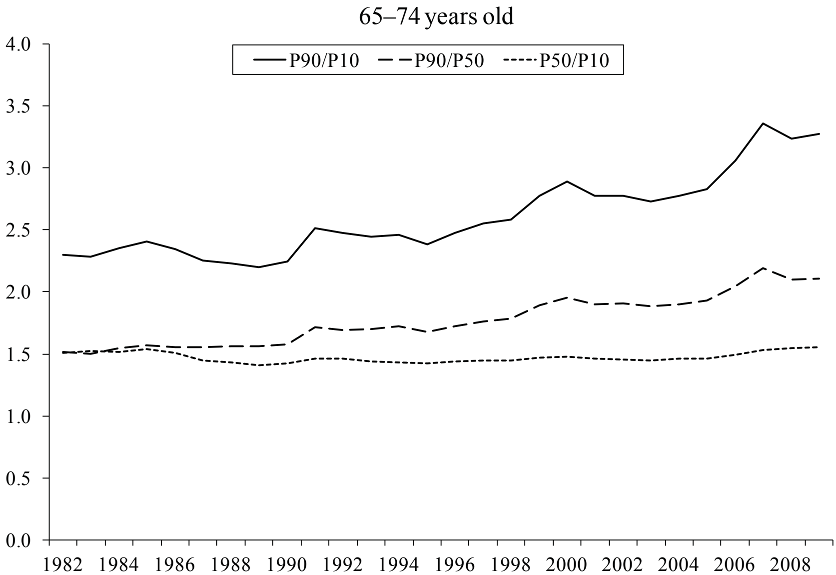
Figure 4.5 shows that income inequality among women aged 50–64 was high in the beginning of the 1980s. Many women were not employed, and many of those employed worked part time, often short part time. As women gradually entered the labor market, income inequality among women aged 50–64 decreased strongly. Among women 65 and older, in contrast, income inequality increased, especially in the upper part of the distribution. More women now have income-related

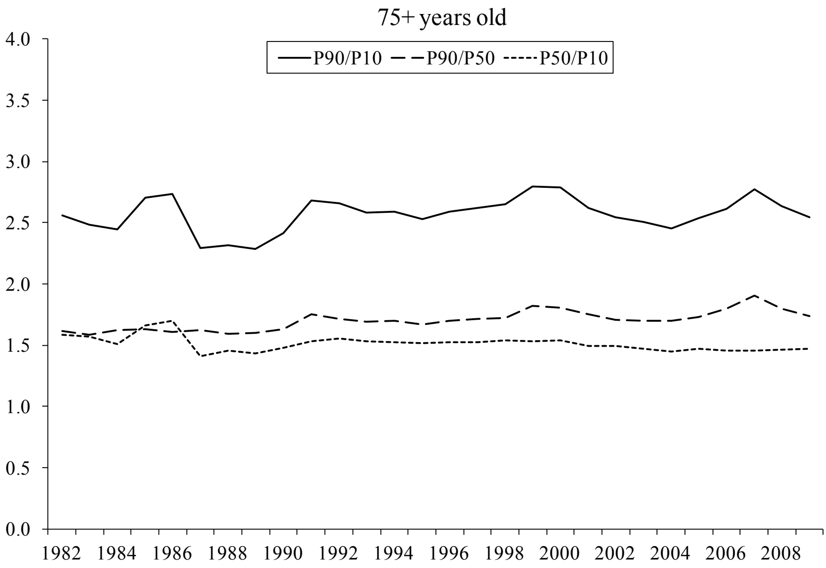
Figure 4.4 Development in Disposable Income for Men, 1982–2009



(continued)

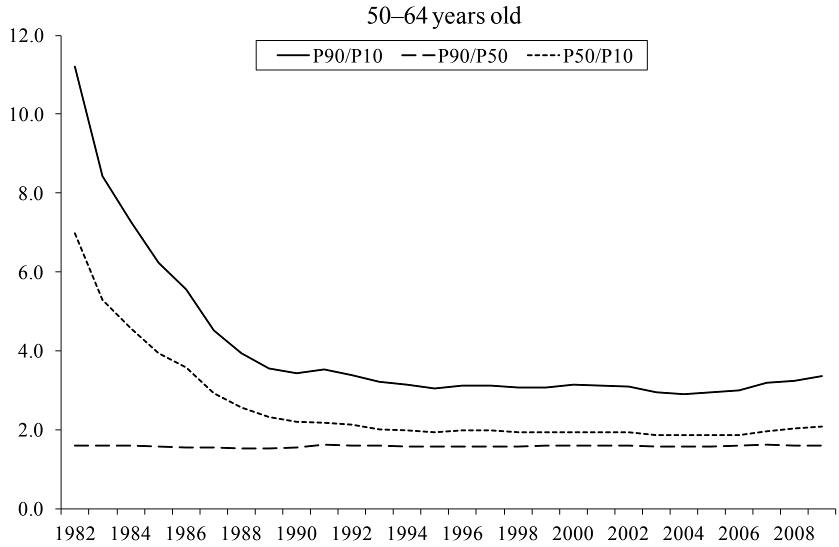
Figure 4.4 (continued)

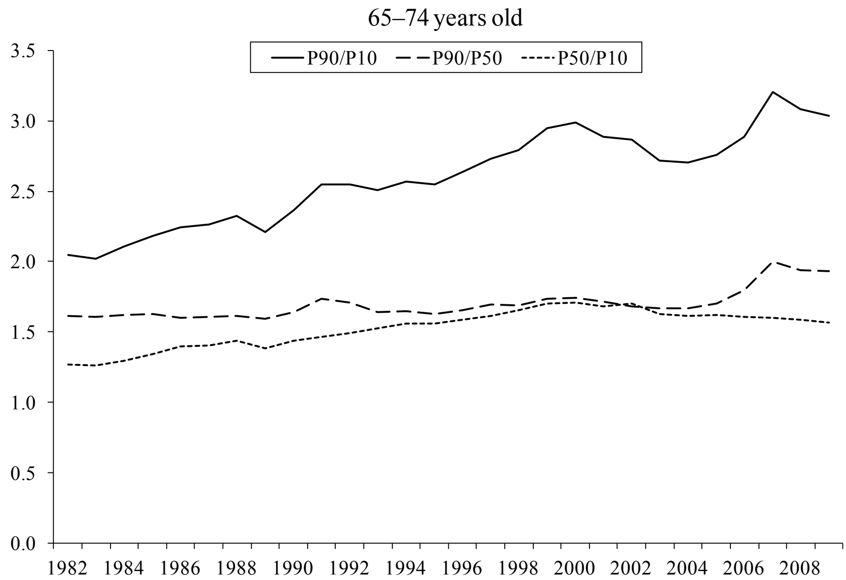




SOURCE: LINDA.

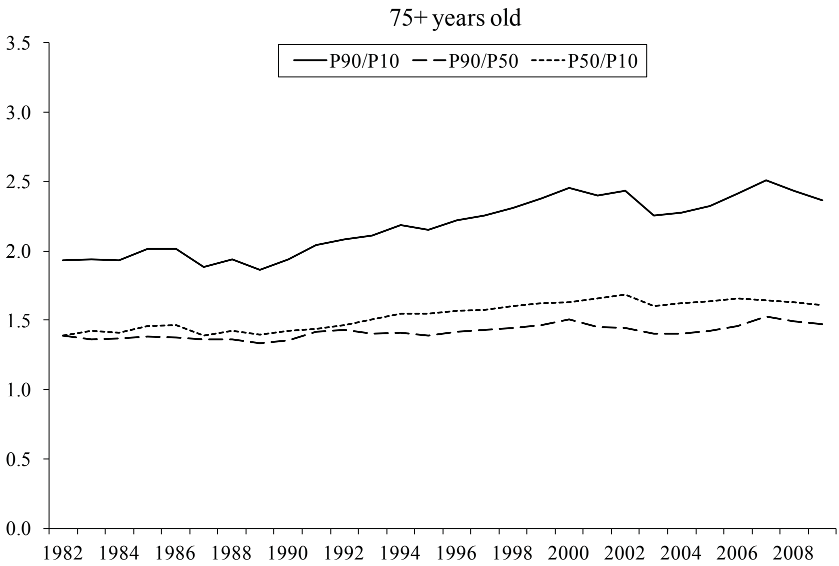
Figure 4.5 Development in Disposable Income for Women, 1982–2009





(continued)

Figure 4.5 (continued)



SOURCE: LINDA.

pensions, but many still have a guarantee pension only or one that is combined with a low-income pension.

Has income inequality increased or decreased? The main tendency is that it has increased significantly among both men and women aged 65–74 and also among women 75 and older. This applies particularly to those with high incomes (P90), who now have much higher incomes than those in the same age with low incomes (P10). In the lower part of the income distribution, the changes are much smaller (P50/P10).

THE DISTRIBUTION OF INCOME AMONG OLDER PEOPLE IN SWEDEN

We now compare further the incomes of men and women and foreign born and native people, respectively. Here, we estimate the percentile distribution separately of each of those four groups and then compare them. There are a number of reasons for conducting these two comparisons. Women have had and still have a weaker labor market attachment than men, and pensions are based on earned income over the years. In the old pension system, 30 years of earnings were required for a full pension, and the best 15 years counted for the calculation of the pension. In the new system, the income for all years is counted. Women more often have had career breaks and are more likely than men to have worked part time. This leads to lower pensions for women than for men in the new system. This means that women often receive a guarantee pension, which, unlike the income pension, is not indexed to income growth in the economy but is price indexed. This situation will probably lead to a gradual reduction of the average economic standard for women compared to that of men.

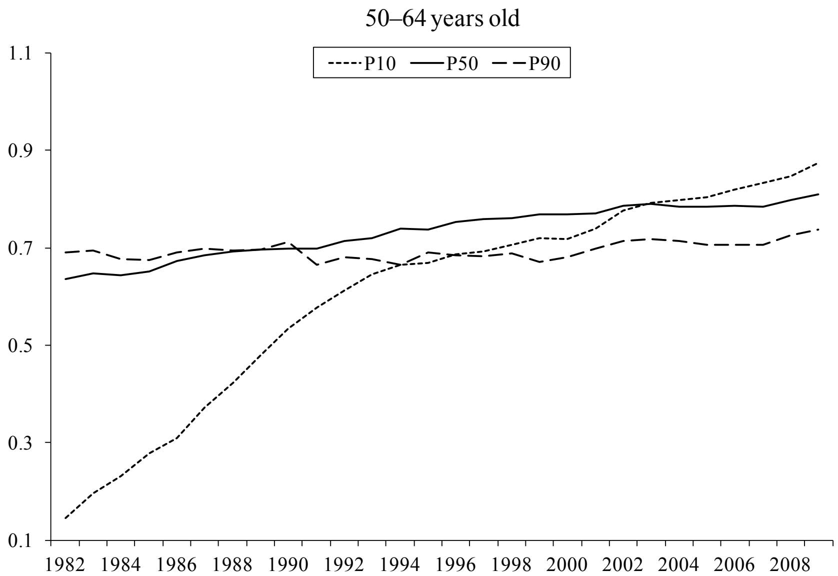
The foreign born in many cases have a weak labor market attachment. They often are not in the labor force or unemployed, more so than natives, and many of those who are employed have low incomes. Coming to Sweden as an adult can also lead to a low pension—it is often difficult to enter the labor market, and therefore many have few years with a contribution to the pension system. Those who immigrate after age 25 cannot reach the 40 years' residence in Sweden needed to receive a full guarantee pension at age 65.

The foreign born in Sweden are a heterogeneous group. Those who come from other Nordic countries and other countries in Western Europe have generally had a much better situation on the labor market before their retirement than those from countries outside Europe. The rules for pensions also differ depending on country of origin due to the existence of various international agreements. The rules are different for those coming from other Nordic countries, other EU/EEA countries, other countries with which Sweden has a pension agreement, and countries with which Sweden has no agreement regarding social security pensions.

COMPARING THE INCOMES OF WOMEN AND MEN

Figure 4.6 shows that women's disposable incomes are lower than men's. This applies to all three age groups—50–64, 65–74, and 75 and

Figure 4.6 Disposable Incomes for Women as a Share of the Disposable Incomes for Men at the 10th, 50th, and 90th percentiles, 1982–2009



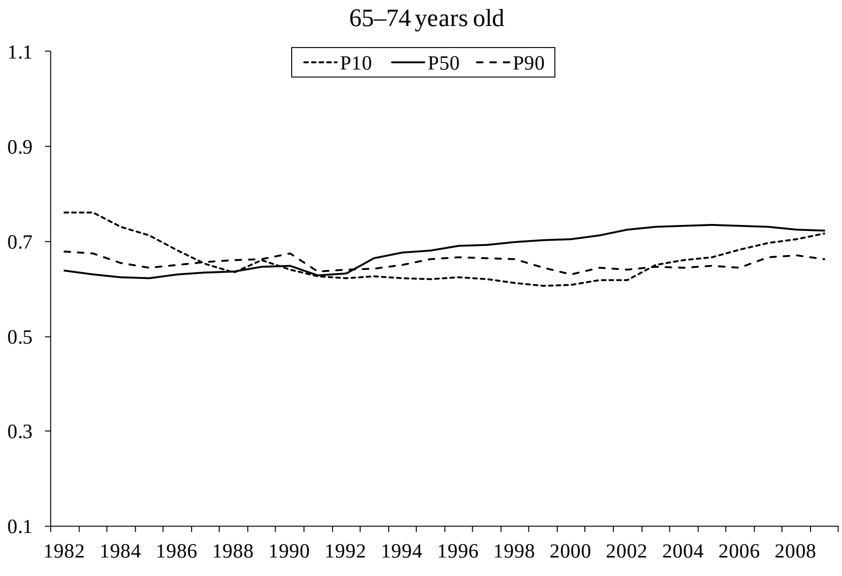
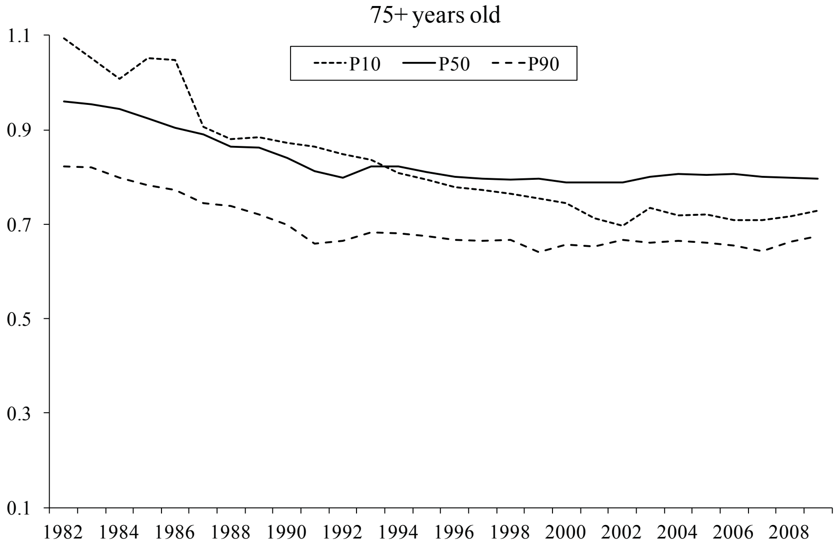


Figure 4.6 (continued)



SOURCE: LINDA.

older—and all three percentiles that we report—P10, P50, and P90. However, there are some differences. Women aged 50–64 in the 10th percentile had low incomes at the beginning of the period compared to men in the same percentile. It was a period when many women were not employed; housewives were common. Women's relative earnings later increased among those in the 10th percentile. Since the mid-1990s, women's disposable incomes have been 70–80 percent of men's incomes in all three percentiles for those aged 50–64. For those aged 65–74, women's incomes have fluctuated between 65 and 75 percent of men's incomes for the three percentiles over the past 27 years.

Among those 75 and older, women's incomes declined relative to those of men throughout the period. During the 1980s, income differences were small in this age group. Among those with the lowest incomes (P10), women even had slightly higher incomes than men. This is explained by the fact that women more often than men are not married (including widows) in this age group, and that a single person received a slightly higher pension than a married person according to the rules of the basic social security pension. In the late 2000s, the income differences between men and women were large in all three percentile groups. The difference was largest for those with high incomes (P90), where women's incomes were only about 65 percent of men's.

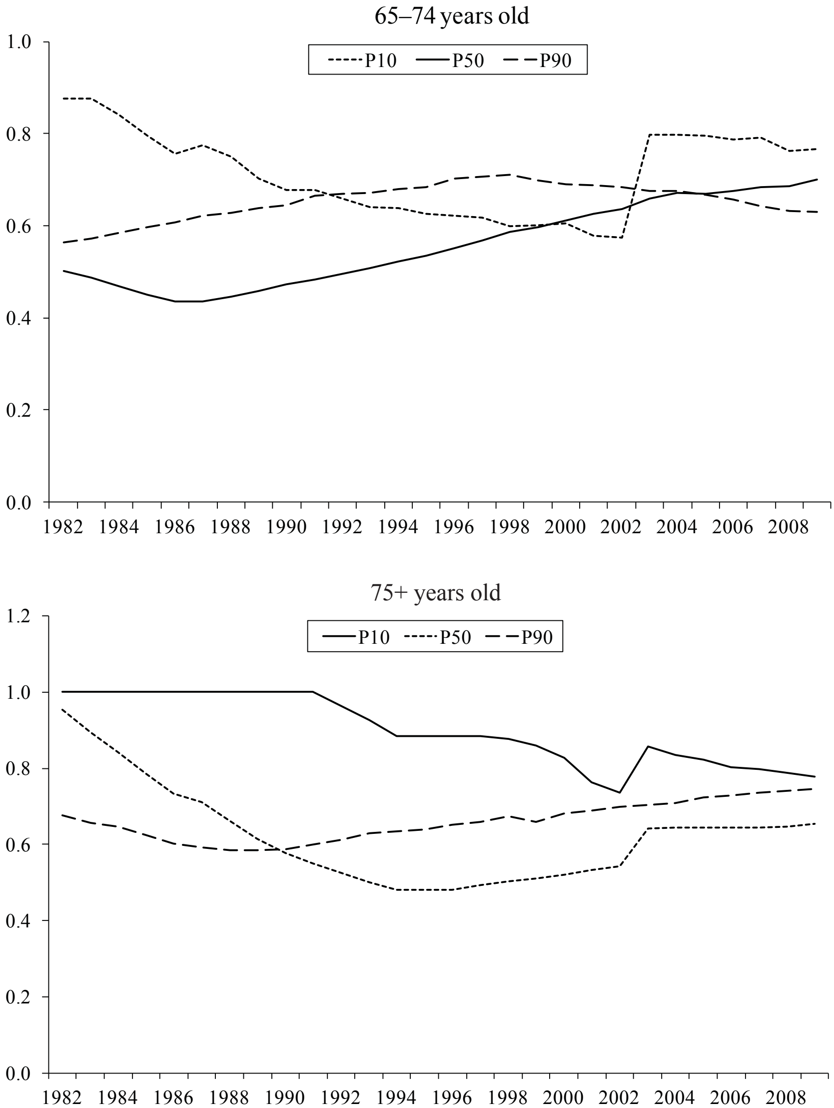
The next step is to compare the pensions of women and men aged 65–74 and 75 and older in the same percentiles as before—P10, P50, and P90 (Figure 4.7). There was a large sudden change in pensions between 2002 and 2003. This is explained by the fact that payment from the new pension system started in 2003. The basic pension and the pension supplement were replaced by the guarantee pension in that year. In the statistics for 2002 and earlier, only the basic pension and the ATP pension, but not the pension supplement, were included as parts of the pension income. The graphs in Figure 3.1 outline disposable income, including pension supplements and housing allowances for pensioners. This explains why we do not see large sudden changes in the graphs in Figure 3.1.

We finally show the pension income distribution for women and men aged 65–74 and 75 and older (Figure 4.8). Pension income inequality increased for female pensioners, both for those 65–74 and for those 75 and older, but the differences in pensions are slightly lower for the older group. For women aged 65–74, income inequality decreased in the upper part of the distribution.

For the oldest women, pension income inequality increased. At the beginning of the 1980s, a large majority of the oldest women only had a basic pension. Therefore the pension income distribution was compressed. As more women in that age group received income-related social security pensions and occupational pensions, they pulled away from those with only a basic pension, and pension income inequality increased.

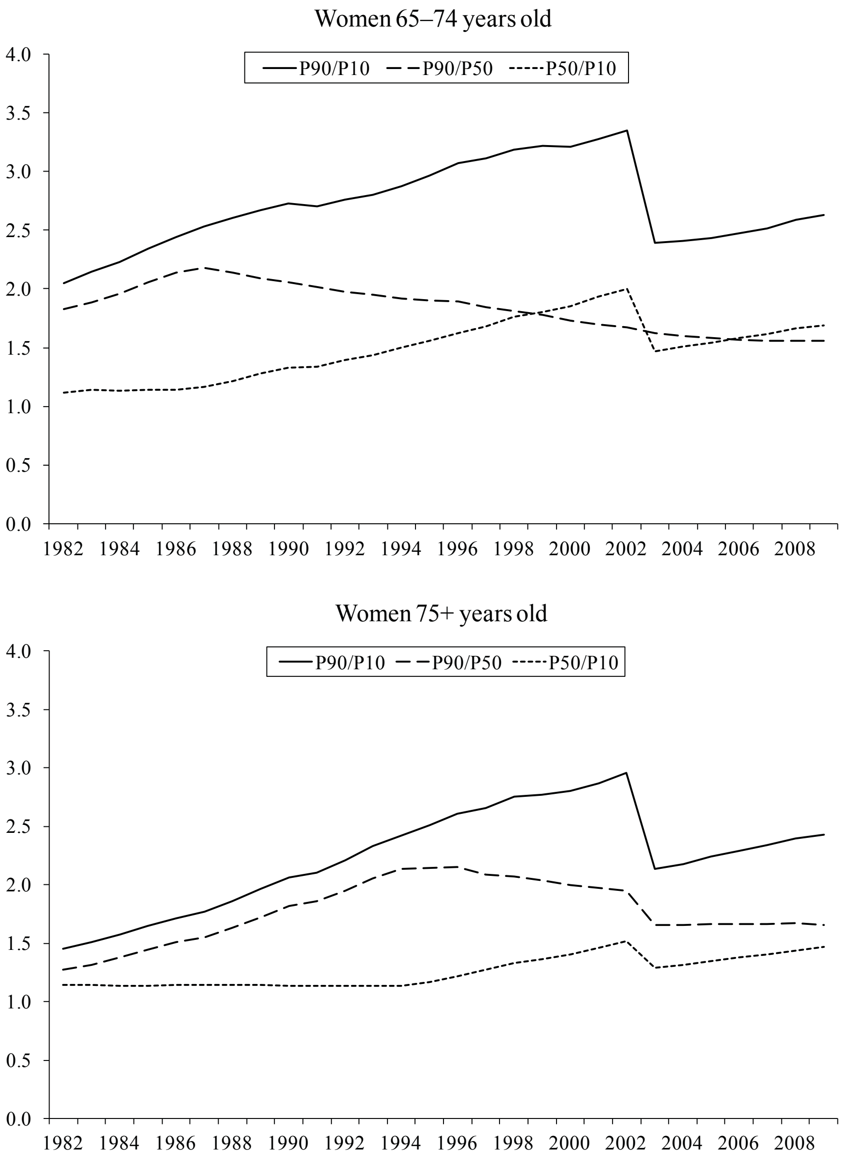
For men aged 65–74, pension income inequality has remained fairly constant. The exception is the P90/P10 ratio. This ratio first declined for some years and then rose for several years. However, there are larger changes for those aged 75 and over for P90/P10 and P50/P10. A marked rise in the ratio P90/P10, and to a lesser extent P50/P10 is followed by a jump down and then stabilization.

Figure 4.7 Pension (Social Security and Occupational) Incomes of Women as a Share of the Pension Incomes of Men at the 10th, 50th, and 90th Percentiles, 1982–2009



NOTE: Only those with a social security pension are included.
SOURCE: LINDA.

Figure 4.8 Changes in Pension Incomes (Social and Occupational) for Women with a Pension in Different Age Groups, 1982–2009



SOURCE: LINDA.

INCOME FROM CAPITAL

Income from capital has become an increasingly important part of pensioners' income and now represents one-fifth of the income of those aged 65 and older. It is unevenly distributed between pensioners, and mainly concentrated on those with the highest incomes. The fact that capital income has risen sharply for those with the highest incomes has contributed the most to increased income inequality among pensioners (Gustafsson, Zaid, and Franzén 2007).

Those who are 65 and older have on average about the same financial assets but lower debt and higher real assets (property) compared to those under 65 (Flood 2004). This means that their net wealth is high, especially when compared to those below age 50. On average, the net wealth is SEK 1.2 million for those 65 and older, and slightly lower for those 75 and older. The net wealth of men 65 and older is on average half a million SEK higher than for women the same age.

Flood (2004) examines the total net assets in different age groups in 2000 and establishes that wealth is greatest at age 56 and remains at a high level to about age 65. Those 65 and older had less wealth, and their levels of wealth declined even more as they got older. This corresponds with the theory of redistribution of income over the life cycle—you save when you are of working age and use the savings when you have retired. The differences could also be partly explained by differences in the cohorts' wealth positions when they reach retirement age. It is important to note that the data in Flood's study are from a cross-section, and individuals are not followed over several years.

Many banks provide "senior loans" with the home of the retirees as security. Homeownership can thus contribute to increased consumption. The share of those who owned a house was almost as great among those aged 65–74 (41 percent) as among those aged 30–65 (46–49 percent) (Table 4.1). A quarter of those 75 and older owned a house. On average, the value of the house was slightly higher for those 65 and older than for younger age groups. The share of those 65 and older who owned a house was higher among men compared to women. The houses men own are also somewhat more valuable than the houses women own.

Table 4.1 Average Real Assets for Women and Men in Different Age Groups, 2007

			House[a]		Building society flat		Summer house	
Gender/age	Share with value (%)	Mean value for those with a value (thousand SEK)	Share with value (%)	Mean value for those with a value (thousand SEK)	Share with value (%)	Mean value for those with a value (thousand SEK)	Share with value (%)	Mean value for those with a value (thousand SEK)
Women and men	44.0	1,381	29.0	1,165	12.0	944	7.0	761
0–19	0.4	697	0.1	677	0.2	641	0.1	429
20–29	24.0	950	8.0	730	14.0	1,017	2.0	572
30–49	63.0	1,297	46.0	1,128	15.0	1,035	8.0	718
50–64	69.0	1,559	49.0	1,206	16.0	951	15.0	785
65–74	64.0	1,507	41.0	1,262	18.0	811	14.0	785
75 +	49.0	1,287	24.0	1,245	21.0	787	7.0	804
Women	42.0	1,260	26.0	1,132	13.0	951	7.0	757
0–19	0.4	676	0.1	660	0.2	615	0.1	424
20–29	24.0	940	9.0	720	14.0	1,063	1.0	561
30–49	62.0	1,218	45.0	1,112	14.0	1,028	7.0	703
50–64	66.0	1,396	44.0	1,173	17.0	966	15.0	781
65–74	56.0	1,316	31.0	1,202	20.0	828	13.0	791
75 +	41.0	1,173	17.0	1,228	21.0	824	5.0	816
Men	46.0	1,492	31.0	1,193	12.0	937	8.0	765
0–19	0.4	721	0.1	694	0.2	676	0.1	434
20–29	24.0	959	7.0	741	15.0	978	2.0	582

30–49	64.0	1,370	46.0	1,143	15.0	1,041	8.0	732
50–64	73.0	1,705	54.0	1,233	15.0	935	15.0	789
65–74	73.0	1,665	51.0	1,300	16.0	790	16.0	780
75 +	61.0	1,407	36.0	1,257	20.0	726	10.0	795

[a]A house with one or two (semidetached house) homes.
SOURCE: Statistics Sweden's wealth statistics.

WHAT CAUSED THE INCOME GAP BETWEEN PENSIONERS?

Pension income is the main income of those aged 65 and older. In this section, we examine the importance of labor income, labor market attachment, disability pension, the sector they retired from, self-employment, marital status, sex, country of birth (grouped level), and the age for retirement with regard to the probability of belonging to the groups of low- and high-income pensioners. We investigate the probability of belonging to the 10 and 20 percent group with the lowest pension income and the 20 or 10 percent group with the highest pension incomes for those who retired between 2005 and 2008. Our measure of pension income includes social security and occupational pensions. Being retired is defined here as receiving a pension income (social security and occupational pension) that exceeds labor income. We use the pension income for the year after retirement when we examine the likelihood of persons being low- or high-income pensioners. The analysis includes only those whom we have information for at least five years before retirement.

Table 4.2 summarizes the results of probit estimates. Marginal effects are reported. Men are less likely to belong to the group of pensioners with the lowest pensions and more likely to belong to the group with the highest pensions. Being married has no effect on the pension income group to which a pensioner belongs.

The later persons retire, the lower the probability of their belonging to the group of pensioners with low incomes. However, the retirement age does not matter for the probability of belonging to those with the highest pension incomes. This is a result of effects working in different directions. Those with high pensions can better afford to take their pensions early, so that many with high pensions leave the workforce early. On the other hand, the pensions for those who leave the workforce late will be higher given their earlier incomes, as pensions are based on previous incomes, and the incomes will be higher if the pension is taken up at a higher age (fewer years with a pension are expected). The estimates show that the higher the income is five years before retirement, the lower the probability is of being among those with a low pension.

One group with low pensions, which we return to later, is the self-employed. Those who were self-employed five years before retirement belong more often to the group with the lowest pension incomes and are less likely to belong to the group with the highest pensions. Those leaving the labor force with a disability pension are another group with low pensions.

We have also included a variable for those who have a weak labor market attachment five years before retirement. This group includes those who did not have any income from work (either as an employee or as self-employed). Among those who belong to this group, some have low pensions and others have high pensions. These mixed results suggest that this group includes both those with a poor labor market attachment, due to difficulties in getting a job, and the wealthy who choose to not work but five years later receive a good pension.

The risk of being one of those with the 10 percent lowest incomes is higher for those born outside Sweden. Being born in another Nordic country has a negative effect on the probability of belonging to those with the highest pension incomes. However, there is no difference between natives and those born outside the Nordic countries with regard to the probability of being in the group with the highest pensions.

Even if pension income is the main income for pensioners, other sources such as other income transfers, labor income, and capital income are important parts of the retirees' incomes.[5] The share belonging to the group with the 10 percent lowest pension incomes who belongs to the group with the 10 percent lowest disposable incomes is 43 percent. Of those with the 20 percent lowest pension incomes, 57 percent belong to the group with the 20 percent lowest disposable income. We see a similar pattern for those with the highest pensions. Of those with the 20 percent highest pensions, 61 percent belong to the group with the 20 percent highest disposable incomes, and of those with the 10 percent highest pensions, 53 percent belong to those with the 10 percent highest disposable incomes. In Table 4.3 we show probit estimates for the probability of belonging to the group of those with the lowest and highest disposable incomes.

Those who have a weak labor market attachment five years before retirement more often belong to the group of those with the lowest pensions but less often to the group of those with the lowest disposable incomes. One explanation may be that those who have had a weak labor market attachment receive other income transfers, and that the group

Table 4.2 The Probability of Belonging to the Group with 10 or 20 Percent Lowest and Highest Incomes from Pensions (Social Security and Occupational Pensions), among Those 65 and Older

	10% lowest pension	20% lowest pension	20% highest pension	10% highest pension
Men	−0.018***	−0.099***	0.103***	0.036***
	0.003	0.006	0.007	0.004
Married	−0.003	0.006	0.012	0.009
	0.003	0.006	0.008	0.004
Age at retirement	−0.013***	−0.021***	0.001	0.001
	0.001	0.001	0.001	0.001
Annual labor income/10,000	−0.002***	−0.007***	0.013***	0.004***
five years before retirement	0.000	0.000	0.000	0.000
Self-employed five years	0.058***	0.270***	−0.110***	−0.046***
before retirement	0.010	0.019	0.009	0.003
Disability pension	0.061***	0.074***	−0.081***	−0.024***
	0.006	0.008	0.008	0.004
Weak labor market attachment	0.063***	0.086***	0.357***	0.217***
five years before retirement	0.011	0.015	0.030	0.027
Born in Sweden	Ref.[a]	Ref.[a]	Ref.[a]	Ref.[a]
Born in another Nordic country	0.017**	0.004	−0.064***	−0.015*
	0.009	0.013	0.012	0.007
Born in EU15 and OECD6	0.037***	0.028	−0.032	−0.014
	0.017	0.023	0.021	0.010
Born in other countries	0.076***	0.166***	−0.030	−0.008
	0.017	0.028	0.019	0.010

Number of observations	13,286	13,286	13,286	13,286
LR chi2(10)	2,097.65	3,331.56	5,064.41	2,050.18

[a] Reference category.

NOTE: *significantly different from zero at the 0.10 level; **significantly different from zero at the 0.05 level; ***significantly different from zero at the 0.01 level. The EU15 and OECD6 countries are Australia, Austria, Belgium, Canada, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Portugal, Spain, Switzerland, UK, and the United States. The annual labor income is divided by 10,000 to facilitate the reporting of the estimates.

SOURCE: LINDA.

Table 4.3 The Probability of Belonging to Different Deciles of Disposable Incomes among Those 65 and Older

	10% lowest income	20% lowest income	20% highest income	10% highest income
Men	−0.052***	−0.117***	0.074***	0.023***
	0.004	0.006	0.007	0.005
Married	0.018***	0.032***	−0.015*	−0.009
	0.003	0.005	0.009	0.006
Age at retirement	−0.002***	−0.003***	0.000	0.000
	0.000	0.001	0.001	0.001
Annual labor income/10 000 five years	−0.004***	−0.010***	0.011***	0.005***
before retirement	0.000	0.000	0.000	0.000
Self-employed five years before retirement	0.030***	0.019**	0.115***	0.054***
	0.007	0.011	0.019	0.014
Weak labor market attachment five years	−0.007***	−0.058***	0.318***	0.187***
before retirement	0.004	0.006	0.026	0.024
Disability pension	−0.015***	−0.018***	−0.038***	−0.016**
	0.003	0.006	0.010	0.006
Born in Sweden	Ref.[a]	Ref.[a]	Ref.[a]	Ref.[a]
Born in another Nordic country	0.005	0.025*	−0.052***	−0.029***
	0.007	0.014	0.015	0.009
Born in EU15 and OECD6	0.017	0.033	−0.006	0.001
	0.013	0.023	0.026	0.017
Born in other countries	0.076***	0.131***	−0.046**	−0.008
	0.017	0.025	0.020	0.014

Number of observations	13,286	13,286	13,286	13,286
LR chi2(10)	2,040.15	3,240.44	3,238.41	2,050.18

[a] Reference category.

NOTE: *significantly different from zero at the 0.10 level; **significantly different from zero at the 0.05 level; ***significantly different from zero at the 0.01 level. The EU15 and OECD6 countries are Australia, Austria, Belgium, Canada, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Portugal, Spain, Switzerland, UK and the United States. The annual labor income is divided by 10,000 to facilitate the reporting of the estimates.

SOURCE: LINDA.

may also contain some of those with a strong economic position who have chosen to stop working early.

Many of those with low and high pensions have low and high disposable incomes, respectively, but there are some differences. The self-employed have low pensions on average, but a higher probability of belonging to the groups of those with the lowest and highest disposable incomes. This reflects the heterogeneity among the self-employed. While some people have been able to save for old age, others have not.

GROUPS AT RISK FOR LOW PENSIONS AND LOW INCOME

Self-employed

The income differences among self-employed workers are large. Many have low incomes, and many do not have a supplementary pension of the same type employees tend to have. The number of self-employed is large and growing, making it important to study this group. Many of the self-employed are foreign born.

Employees who become self-employed have different backgrounds. Those who take into account characteristics such as education have low labor income as employees and those who have a high labor income as employees are overrepresented among those becoming self-employed (Andersson Joona and Wadensjö 2013). The latter group is doing considerably better than the first one in being self-employed, which indicates that the conditions for being self-employed vary greatly, as do the opportunities and knowledge of how best to prepare financially for life as a pensioner.

More than half of small business owners pay into pensions for themselves, but a quarter of the self-employed have no retirement savings; they save neither privately nor through their firms. Of the self-employed who save, 45 percent save less than 2,000 SEK per month. In order to receive the same pension that their employees receive from occupational pensions, the self-employed have to save 5 percent of their gross incomes from age 25 until retirement. If they start to save later, the annual savings required are higher (Svärdman 2011). The main reason the self-employed give when asked why they are not saving for a pension for themselves is that they cannot afford it. Other reasons are that they do not see any need, as their incomes as retirees are guaranteed by other means; they do not know how it works with occupational pensions; and they do not have time to gain an understanding of pension issues (Burreau 2011).

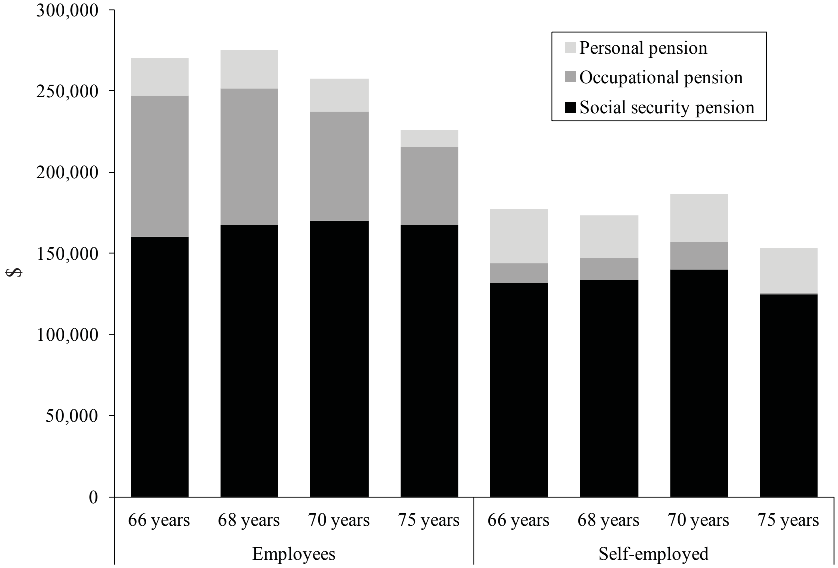
Today's retirees who have been self-employed have significantly lower pensions than those who have been wage earners. Both men and women who were self-employed five years before retirement had on average a total pension (social security, occupational, and personal) corresponding to about 70 percent of the average total pension for those who were wage earners five years before retirement in the period 2005–2009.[6]

Figures 4.9 and 4.10 show how much the average social security, occupational and personal pensions are for those who were wage earners or self-employed. Those who were wage earners had higher social security and occupational pensions but lower personal pensions than those who were self-employed. The social security pensions of the self-employed were about 75–80 percent of the social security pensions of wage earners for both men and women. For self-employed women, the occupational and personal pensions together constitute about 45–55 percent of the pensions of women who are wage earners, with an exception for self-employed women aged 75 and older who had occupational and personal pensions that were higher than those for wage earners. The corresponding figures for men are between 40 and 50 percent.

Guarantee Pensioners, Those without Occupational Pensions, and the Foreign Born

Some groups other than the self-employed have low pensions, such as those who have had low or irregular earnings and therefore receive a guarantee pension. The guarantee pension is only price indexed and not income indexed like the income pension. The group may therefore lag behind in income growth compared to those receiving an income pension. For the next few years it is expected that about 25 percent of new retirees will receive a guarantee pension. In 2008, 778,000 individuals received a guarantee pension, of which 180,000 (15 percent) received a full one. Of those who received a guarantee pension, 80 percent were

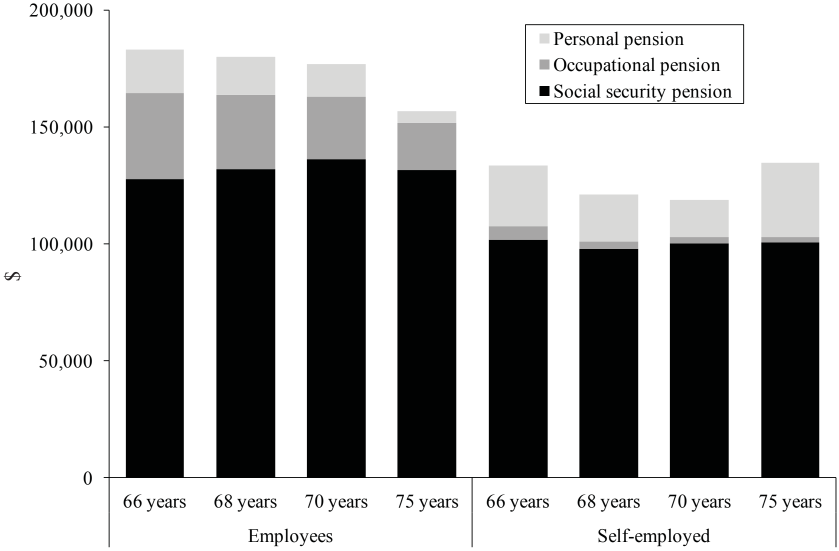
Figure 4.9 Pension Incomes for Men, 2005–2009



NOTE: Employees are defined as those who had their main incomes from employment five years before retirement. Self-employed are those with their main income from self-employment five years before retirement. Someone is defined as retired when pension income from social security and occupational pension exceed labor income.
SOURCE: LINDA.

women (Olsson 2011). Nearly half of female pensioners aged 65–70 received a guarantee pension in 2008. Among women aged 70 and older, it is even more common to receive a guarantee pension, as the older cohorts have had low labor force participation. For example, just less than 60 percent of women aged 70–75, over 80 percent of those aged 80–85, and over 90 percent of those aged 90 and older receive a guarantee pension. The proportion of men who receive a guarantee pension is much lower. In the age group 65–70, only slightly more than 10 percent receive a guarantee pension. Among men aged 80–85, a quarter receive a guarantee pension, and among those 90 and older, half receive a guarantee pension.

Figure 4.10 Pension Incomes for Women, 2005–2009



NOTE: Employees are defined as those who had their main income from employment five years before retirement. Self-employed are those with their main income from self-employment five years before retirement. Someone is defined as retired when pension income from social security and occupational pension exceed labor income.
SOURCE: LINDA.

Employees not covered by collective bargaining labor agreements are a second group at risk for low pensions. Occupational pension is most important for those who have had incomes above the ceiling in the income pension system, but it is important not just for them. Most receive their occupational pensions through a collective agreement. Over 90 percent of employees are employed in workplaces covered by collective bargaining agreements and thus have occupational pensions. Those who lack an occupational pension are primarily those who work in firms with few employees, those with the highest and lowest wages, and the self-employed and unemployed. Only a third of small business owners have signed up for an occupational pension. Employers without a collective agreement may pay for an occupational pension plan for their employees and at the same time for themselves. Of businesses without a collective agreement, 40 percent have a pension plan. Among those not covered by a collective agreement pension, approximately 60 percent have signed up for a separate personal pension (Svärdman 2011).

The foreign born are a third group at risk for low pensions. This is a group with large income differences and includes many low-income earners. Flood and Mitrut (2010) have written a report for the Social Council on immigrants coming from non-OECD countries and their pensions. The pensions of this group of foreign born are predicted to be low. Between 1992 and 2007, the foreign-born men's earnings were about 75 percent, and foreign-born women's earnings were about 60 percent of native-born men's earnings. This can be compared with the native-born women's earnings, which were about 70 percent of the earnings of native-born men.

The growth of earnings has important implications for future pensions. Between 1992 and 2007, this was slower for the foreign born from non-OECD countries than for natives. As an example we take the cohort born in 1960–1964. The income growth (among those who had earned income) was 62 percent for native men, 72 percent for native women, 47 percent for foreign-born men, and 49 percent for foreign-born women.

Labor force participation among the foreign born is lower than among natives even after taking into account differences in education, age, gender, etc. This leads to lower pensions for the foreign born than for natives. It should be emphasized that there are significant differences depending on country of origin. Low wages, low labor force participation, high unemployment, and fewer years in Sweden lead to lower pensions. Probably only a few foreign born from non-OECD countries have pension rights from their country of origin that can be transferred.

Forecasts of future social security pensions show that foreign-born people from non-OECD countries will have much lower pensions than natives. Foreign-born men born between 1946 and 1970 will receive about 60–65 percent of the native men's social security pension. The corresponding figure for foreign-born women is about 55 percent of the native men's social security pension.

The foreign born from non-OECD countries have significantly lower incomes and wealth than natives. Native-born men had in 2007 three to four times higher real assets than foreign-born men. The same relationship applies to the wealth of native- and foreign-born women.

Also, assets in personal pension savings are much smaller for the foreign born from non-OECD countries than for natives. For the cohort born 1945–1949, this amounted to one-third for both men and women compared to native men in the same cohort. For younger cohorts, the difference was even greater. For example, for the cohort born 1960–1964, the foreign-born personal pension wealth was 18 percent of that of native men in the same cohort, and for the cohort born 1970–1974 it was only 11 percent.

CONCLUSION

In this section, we summarize our results and mention some areas where we lack essential knowledge.

One important result is that some groups aged 65 and older have low pensions and other low incomes compared to others the same age. Women 65 and older on average have lower incomes and pensions than men the same age. The main reason for this is that working-age women have had a greater responsibility for unpaid housework than men. This does not mean that all of them live in households with low incomes as they get older. Many are married to men who have high pensions or other forms of income, but older women are often single. Women live longer than men, and women are on average younger than the men they marry. This means that women are more likely to be widowed than men. In addition, divorce is common, and pension wealth is not distributed in full upon divorce. Many women thus become single with a low pension. The long-run solution is a more equal division of labor between men and women both in the household and in the market. However, it can take a long time before such a change takes effect. Pensions are based on earnings over a lifetime or for many years (some of the occupational pensions). There are good reasons for reviewing the rules on pension plans.

The foreign born are another group that on average has low pensions. This is because many have a weak labor market attachment and many have lived for less than the 40 years in Sweden required at 65 for a full guarantee pension. The long-term solution is a stronger labor market attachment, but there are good reasons to review the rules for pension plans, particularly the rule about the number of years of residence required for a full guarantee pension.

The self-employed is a third group that often has low pensions. One explanation is that they have not paid for a pension corresponding to the occupational pensions for employees; another is that many of the self-employed have low incomes. A solution may be that more information could be given about the pension plans for self-employed, but there may be other ways of bringing this about.

A fourth group, which largely coincides with the three previously mentioned, consists of those who for various reasons have had a weak attachment to the labor market over a number of years. Also, after age 65 they usually have a weak attachment to the labor market, and they receive a low social security income–based pension and a price-indexed guarantee pension.

It is important to investigate different ways to improve the situation for those four mentioned groups who often have low incomes and pensions after age 65, that is, to improve the conditions for women, foreign born, self-employed, and those who for prolonged periods have had a weak attachment to the labor market. Different types of solutions may be required for the various groups.

Notes

We thank participants at the TrefF seminar in Oslo on May 31, 2012; the Swedish Fiscal Policy Council conference in Stockholm on June 18, 2012; and the ENRSP Conference in Poznan on September 13–14, 2012. We also thank Christer Gerdes for helpful comments on an earlier version.

1. See Sjögren Lindquist and Wadensjö (2011) for a more detailed presentation.
2. There is a gradual change from one system to another. For those who are born in 1938, 4 parts of 20 are calculated according to the new system (and 16 parts of 20 according to the old system). In 1944, 10 parts of 20 are calculated according to the new system (and 10 parts of 20 according to the old system).
3. For a discussion of different measures of income inequality among pensioners, see Johnson and Stears (1999).
4. van Vliet et al. (2011) use P80/P20 to measure the income distribution among older people in 15 European countries. They find that the ratio is lowest in the

four Nordic countries included in their study—Denmark, Finland, Norway, and Sweden.

5. See also Sjöström and Örnhall Ljung (2011) and Klevmarken (2010) for an analysis of who is working after 65.
6. Retirement is defined here as the first-year pension income from social security and occupational pension exceed labor income.

References

Andersson Joona, Pernilla, and Eskil Wadensjö. 2013. "The Best and the Brightest or the Least Successful? Self-Employment Entry among Male Wage-Earners in Sweden." *Small Business Economics* 40(1): 155–172.

Björklund, Anders, and Markus Jäntti. 2011. *Inkomstfördelningen i Sverige*. Stockholm: SNS Förlag.

Burreau, Britta. 2011. *Småföretagarna väljer bort tjänstepensionen*. Stockholm: Nordea.

Flood, Lennart. 2004. "Vilka pensioner får framtidens pensionärer?" *Ekonomisk Debatt* 32(3): 16–30.

Flood, Lennart, and Andreea Mitrut. 2010. *Ålderspension för invandrare från länder utanför OECD-området*. SOU 2010:105.

Gustafsson, Björn, Mats Johansson, and Edward Palmer. 2009. "The Welfare of Sweden's Old-Age Pensioners in Times of Bust and Boom from 1990." *Ageing and Society* 29(4): 539–561.

Gustafsson, Björn, Asghar Zaid, and Eva Franzén. 2007. "Financial Poverty." *International Journal of Social Welfare* 16(suppl. 1): 67–90.

Johnson, Paul, and Gary Stears. 1999. "Pensioner Income Inequality." *Fiscal Studies* 16(4): 69–93.

Karlsson, Hans, and Hans Olsson. 2012. *Medelpensioneringsålder och utträdesålder 2011*. Stockholm: Pensionsmyndigheten.

Klevmarken, Anders. 2010. *Vem arbetar efter 65 års ålder? En statistisk analys*. SOU 2010:85.

Kruse, Daniel. 2010. Longitudinell individatabas (LINDA). Beskrivning av statistiken, BV/EV. 2010-08-18. Stockholm: SCB.

Olsson, Hans. 2011. *Pensionsåldern*. Statistik och utvärdering. Stockholm: Pensionsmyndigheten.

Rosén Karlsson, Karin. 2011. Hushållens ekonomi (HEK), Beskrivning av statistiken, BV/EV, 2011-10-28. Stockholm: SCB.

Sjögren Lindquist, Gabriella, and Eskil Wadensjö. 2011. "A Viable Public-Private Pension System." In *Varieties of Pension Governance: Pension Privatization in Europe*, Bernhard Ebbinghaus, ed. Oxford: Oxford University Press, pp. 240–261.

Sjöström, Magnus, and Sara Örnhall Ljungh. 2011. *Efter 65 – inte bara pension. En analys av de äldres ekonomiska situation*, Ds 2011:42.

Svärdman, Håkan. 2011. *Småföretagande = små pensioner?* Stockholm: Folksam.

van Vliet, Olaf, Jim Been, Koen Caminada, and Kees Goudswaard. 2011. "Pension Reform and Income Inequality among the Elderly in 15 European Countries." Research Memorandum 2011.3. Leiden, Netherlands: Department of Economics, Leiden University.

Wadensjö, Eskil. 2011. "De äldres återkomst till arbetsmarknaden – ett långsiktigt perspektiv." In SCB, *Arbetskraftsundersökningarna (AKU) 50 år. Fyra forskarperspektiv på arbetsmarknaden*. Bakgrundsfakta 2011:3. Stockholm: SCB.