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Composition of the expected income of future pensioners in the
Netherlands

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Composition of expected income of future pensioners in the Netherlands

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Summary: The pension system in the Netherlands consists of three formal pillars and an informal one. Statistics Netherlands is collecting micro data on the pension rights in the different pillars from pension funds, insurance companies and other sources. This provides a comprehensive insight into the total pension rights of the Dutch population in the ages of 15 to 64, at the individual level. In this paper we describe the achievable pension claims of the Dutch employees in the different pillars to determine the expected income of population groups after retirement. Differences between the sexes and between native and immigrant employees are shown in our figures, in our quest for potentially vulnerable groups. The focus is on the first and the second pillar, since these are the most important pension schemes for employees.

Besides the absolute achievable pension claims, a replacement rate is used to identify the groups of individuals that can expect a drop in income after retirement. This replacement rate relates the achievable annual pension rights to the annual fiscal income of people.

The most important result is that immigrants, those born abroad, have a shortfall in pension rights compared to native Dutch of the same age and sex. The replacement rate for male natives in the ages age between 50 and 55 years is 72%, and the first generation immigrants of the same age have a replacement rate of 42%. This is the result of lower number of years of living and working in the Netherlands, which is required for participating in respectively the first and second pillars schemes. The children of these immigrants, the so-called second-generation immigrants, who are employed differ far less from the native Dutch of their generation than the first generation immigrants.

Women generally have a lower build-up pension in the second pillar than their male counterparts. This is caused by a lower labour participation of females in Netherlands, where many females work part-time, or not at all. Some of these shortfalls will be compensated for within a household.

For the third and fourth pillar, there are less data available. The data of these pillars are used to check for potential, additional sources of income after retirement for the identified group. Based on the data available, it is provisionally concluded that first generation immigrants have no substantial additional means in the either the third or fourth pillar.

1. Introduction

The Dutch population is aging due to an increased life expectancy and a lower birth rate. The average population age is predicted to peak in 2038. By this time 25% of the Dutch population will be over 65. Policymakers are interested in the implications of this aging process on future welfare.

Statistics Netherlands is developing statistics on the accumulated pension claims of the Dutch labour force and others. Also new figures are developed to provide insight on the expected post-retirement income situation of the population between 15 and 64 years of age. These statistics are based on data provided by pension funds, insurance companies, social security and tax authorities. As these data are collected at micro level it is possible to provide a comprehensive insight of the total pension at the individual level. This is a rather unique and important feature of these new statistics.

The statistics and the micro data are made in such a way that policymakers now have the opportunity to analyse previous policies and make new policies, to provide benchmark information for the pension sector and to provide material for academic research.

In this paper, we will discuss the results of the accumulated pension claims of employees. The situations of the self-employed or the unemployed are not covered in this paper, because the focus is on the labour-related pension claims that are of little importance for these groups.

Special attention is paid to specific demographic groups, for example immigrants, who may experience a substantial drop in income when they reach retirement age. The change in income after retirement is measured by a replacement rate.

The combined pension rights within a household are not yet computed. Some of the shortfalls in individual pension accrual of employees may be compensated by other household members. Other deficits lead to a decrease in prosperity and possibly an increased demand on social security funds.

The first chapter explains the structure of the Dutch pension system and contains information on the data sources used. The next chapter shows the results of the first and the second pillar. The third chapter discusses the possible additions in the third and fourth pillar. This paper ends with some conclusions and a preview of further work to be done in this field.

2. The Dutch pension system

First, we will briefly describe the Dutch pension system. After this, we will list the data sources for each pillar. This system consists of three pillars:

The first pillar The first pillar is a defined-contribution public pension scheme called AOW based on the Old Age Pension Act, with a fixed retirement age of 65¹. This scheme is financed through a pay-as-you-go system, meaning that the working generation pays taxes to finance the benefits for the retired generation. Anyone aged between 15 and 64 living in the Netherlands is accumulating 2 percent of the pension rights each year. Full pension rights can be accumulated in 50 years. The benefits are linked to the minimum wage and depend on the household situation of the retiree. A single person with full AOW rights receives approximately €1,000 before tax per month in 2008 and a couple approximately €1,400 between the partners.

The second pillar of the Dutch pension system is a job related pension on corporate and/or sector level, to which employees and employers contribute. The second pillar is widespread: it covers over 90 percent of the labour force. Participation is mostly arranged through collective labour agreements. The system can be either defined benefit or (collective) defined contribution, and the retirement age varies between pension funds or contracts. In recent years, the Dutch government has restructured legislation for this pillar in order to improve the employment rate of older generations.

The third pillar is a private pension scheme, intended for those who do not build up pension rights in the second pillar and/or for people with a pension deficiency in the first and/or second pillar. This pillar is important to the self-employed who generally, do not participate in the second pillar schemes. The third pillar consists of individuals making private arrangements, like (life) annuities, with insurance companies. Under conditions, favourable tax regulations apply. Both the second and the third pillar are fully funded.

The first and second pillar are the most widespread and important pillars. The first pillar contains about 50%² of the computed present value of the total pension claims in the three pillars. The second pillar holds 45% and the remaining 5% are individual annuities in the third pillar

In addition to the three pillars, wealth is often considered the fourth pillar. This pillar comprises sources that may be used as a provision for old age, but are not

¹ The Dutch government is currently discussing plans to increase the pension age of the first pillar scheme gradually to 67.

² The first and second pillar present values are based on the collected pension rights and the accounting principles prescribed for the transfer of pension rights. The third pillar is based on the collected present value of life annuities.

specifically destined for that purpose unlike the first three pension pillars. Examples are endowment policies, saving accounts and real estate.

The data sources used for each pillar are briefly explained in the next section. The reference date of the data used for this paper is 31 December 2005.

2.1 Data sources

The first pillar information is based on the Dutch Municipal Base Register (GBA) and the registrations of the social security bank (SVB), the organisation that implements the old age pension act. These registers provide build-up pension rights in the first pillar.

No integral registers are available for the second pillar. Statistics Netherlands is collecting individual claims from a sample of Dutch pension funds and insurance companies. The data collection is in progress; the share of data collected so far is shown in figure 1. The participants are distributed unevenly over the pension funds. Although only a small percentage of the number pension funds are participating, these funds contain over 60% of the active participants.

An expansion method has been applied in order to adjust the pension claims for the funds excluded from the sample, and for non-response. This method is based on comprehensive data which the national bank (DNB) collects for financial surveillance purposes.

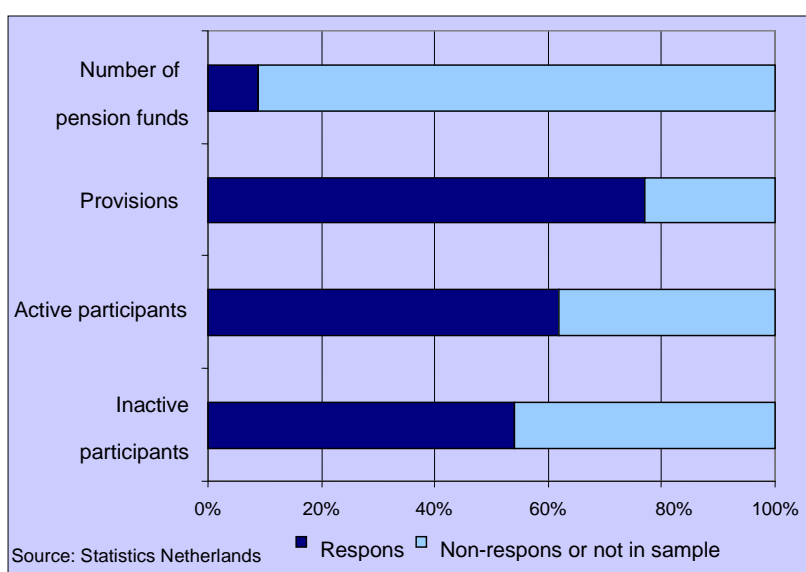


Figure 1: Share of employment pension claims collected by Statistics Netherlands

The data collection for third pillar products from insurance companies is currently in progress at Statistics Netherlands. The results presented are based on a small number of insurance companies with a combined market share of 12%.

The tax authorities supplied the data used for the fourth pillar. Major fourth pillar capital items are savings and property. In this research the fourth pillar is restricted

to savings over the tax-free limit of €20,000 and private home-ownership. Savings below this threshold do not need to be reported to the tax authorities by the taxpayer. The value of home ownership is defined as the estimated value (for tax purposes) of the property minus the outstanding mortgage.

3. Expected income of future pensioners

In this chapter, we will discuss the achievable pension³ and income replacement rate of employees. The emphasis is on differences between the sexes, between the origin of different population segments, and between generations. The number of employees present in these subgroups is shown in table 1.

Table 1. Number of employees (x1000) in the Netherlands, 31 December 2005 (Source: Statistics Netherlands)

		Natives	Immigrants				Total
			Western		Non-western		
			1st generation	2nd generation	1st generation	2nd generation	
Men	25-35	656	24	41	63	23	807
	35-45	839	30	55	80	6	1010
	45-55	753	28	45	43	1,5	871
	55-65	395	20	23	13	0,5	452
Women	25-35	607	29	39	49	23	747
	35-45	702	29	46	54	5	836
	45-55	588	28	36	33	1,2	686
	55-65	232	13	14	8	0,4	267
Total		4771	200	300	343	60	5674

By examining these subdivisions we expect to identify vulnerable groups of employees⁴ who will have a pension below the Dutch minimum wage, below the Dutch social security threshold for individuals or employees who will experience a considerable drop in income after retirement.

The Dutch social security threshold for a single person in 2005 was € 807.77 gross per month, approximately € 9,700 per year. Individuals, living in the Netherlands, who have an income below this threshold, and who are not financially supported by a partner, receive social security. This is a supplementary benefit provided by the government to make sure every single citizen has an income of at least € 9,700 gross per year.

³ Achievable pension: the annual old age pension benefits achieved at the retirement age as calculated by pension funds under the assumption that the current work contracts are continued.

⁴ Someone is considered an employee if wages form the largest share in his or her income in the month of reference.

The Dutch minimum wage in 2005 was € 1,264.80 gross per month. This means that every individual, with a 40 hours contract, working in the Netherlands receives at least € 15,178 gross per year.

3.1 Results

The statistics on achievable pension are based directly on the material provided by pension funds and insurance companies. They report both the achieved pension rights as well as the achievable pension when the employee continues his current employment until the age of 65.

Looking at the employed population in the Netherlands, there is a large difference between men and women over 35 (figure 2) in the sum of achievable old age pension and employment-related pension (first and second pillar pension). For younger women and men the predicted income after retirement is comparable. Young generations of men and women have equally paid jobs and there is less difference in the participation on the labour market between these groups than in older generations. For women over 35 the increase of the achievable pension slows down, whereas that of men continues to increase to more than €33,000 per year for men aged 50-55. For men over 55 it drops to just over €25,000 per year. A substantial number of male employees retire early, presumably mostly the ones with the higher pensions. Therefore, the average achievable pension of the remaining group of employees (seems to) decrease.

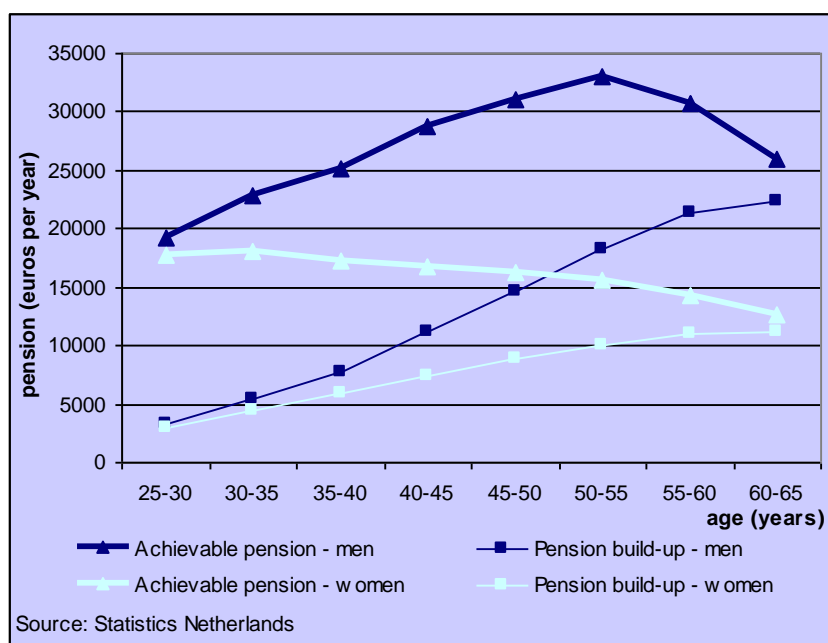


Figure 2: Build-up and achievable pension (first plus second pillar) of employees in the Netherlands, 31 December 2005

The drop in the women's pensions can be explained by the current generations of women over 35 who, compared to men, work in part-time jobs more often or have not been active on the labour market for some period, as a result of which their achievable pension also lags behind.

Although the average achievable pension for all generations of women is considerably lower than that of men, the average is still higher than the minimum wage income for most age classes. Only the averages for women aged 55- 65 are lower, so these groups are to be considered as potentially vulnerable groups.

Looking at the differences in achievable pension between the different origin groups in the Netherlands, we see that native men can expect a pension that is far higher than that of immigrants (figure 3) for all age categories. The difference between native Dutch and non-western immigrants⁵ is particularly large. The achievable pension of native Dutch men, for most age categories, is one-and-a-half to over two times as high. The differences are smaller between native men and western immigrants⁶, only fifteen to twenty-five percent.

The differences between women of different descent, both absolute and relative, are much smaller. Western female immigrants have an almost identical achievable pension as native Dutch women (figure 4). The difference is at most five to six percent except for the youngest age categories. The differences in achievable pension between non-western and native women run up to a maximum of twenty-five percent.

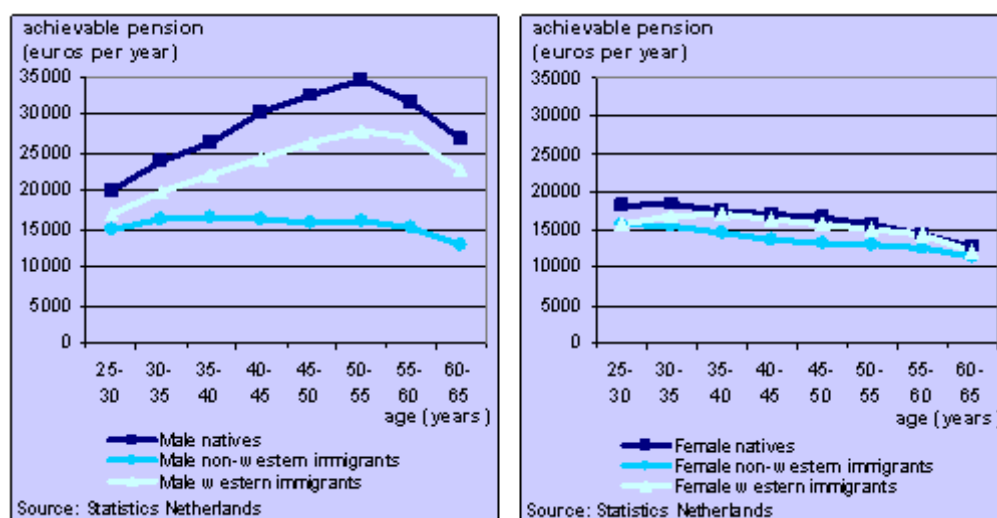


Figure 3 and 4: Achievable pension (1st plus 2nd pillar) of male respectively female employees in the Netherlands, 31 December 2005

Furthermore, there is also a striking resemblance between the achievable pension of non-western male immigrants and non-western female immigrants. Where the difference for the different age categories for natives incurs up to well over 120 percent, the differences between non-western male and female immigrants is at most twenty-three percent.

According to these figures the potentially, vulnerable groups (groups with an achievable pension below the minimum wage) in the future are particularly the

⁵ Non-western immigrants: immigrants from a country in the continents of Asia (except Japan or Indonesia), Africa, or Latin-America, or from Turkey.

female non-western immigrants. The achievable pension of this group lies below the minimum wage of just over €15,000 (for all age brackets above 35). Also older (55+) native and western immigrant women, and older male non-western immigrants end up below this threshold, and after retirement they may face financial difficulties, especially when they are or become single.

The relatively low achievable pension of immigrants is found predominantly within the first generation immigrants⁷. The second generation immigrants⁸, both western and non-western, have an achievable pension similar to that of the native Dutch (figure 5). This can be explained by the age at which the first generation arrived in the Netherlands. As a result, they had a late start in building up their old age state pension. They also had a late start in building their labour-related pensions, often in low paid jobs. Possible additional pension rights held abroad by these immigrants are not known.

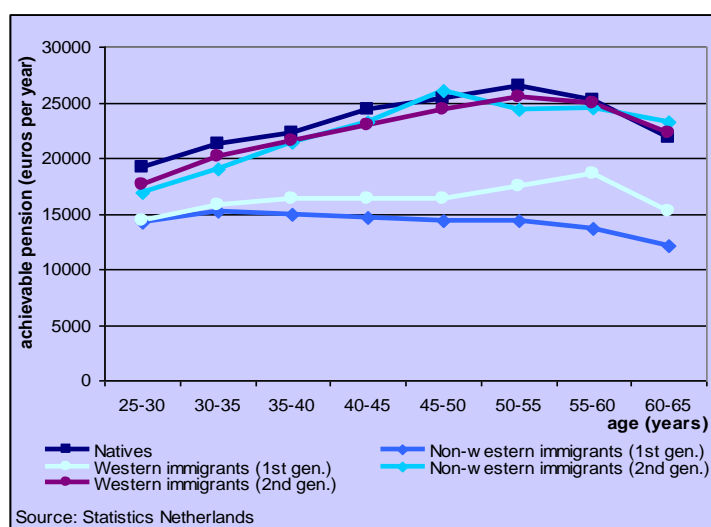


Figure 5: Achievable pension (1st plus 2nd pillar) of different generations of employees in the Netherlands, 31 December 2005

Second generation immigrants are born in the Netherlands and start to build up old age state pension, like natives, from the age of 15. Their pension rights resemble those of natives. This may also be because the second generation is better educated and holds better jobs than the first generation immigrants. So the shortfall in achievable pension of the immigrants in the Netherlands is a problem of people entering the Netherlands unable to make up arrears with their age group.

Mostly the first generation non-western immigrants will experience financial problems after retirement because their achievable pension is below the minimum wage boundary. Therefore, they are to be considered as a potentially vulnerable group.

⁶ Western immigrants: immigrants from Japan, Indonesia or a country in the continents of Northern-America, Oceania or Europe (except Turkey)

⁷ People born outside the Netherlands.

⁸ People born in the Netherlands of whom a least one parent was born abroad

3.2 Replacement rate

In the Netherlands, the first and second pillar cover respectively 100 and 91% of the working population. These are the highest rates in Europe. The achievable pension of an individual may be small or large; the most important question is whether the receiver will be able to maintain his or her habitual standard of living. The concept of replacement rate was introduced to allow comparisons of this kind.

Theoretical replacement rates have been developed to measure the extent to which pension systems enable workers to preserve their previous living standard when changing from employment to retirement⁹. The replacement rate given here is calculated as the ratio of a given population's average achievable pension at the age of 65, and the average income in the year of reference (2005). The measure of income used is the amount of taxable salary. This replacement rate disregards any third pillar pensions. Furthermore pension contributions stop at 65, but some insurances become more expensive. Until recently a 70% replacement rate based on gross salary¹⁰ was expected to be sufficient to retain purchasing power. With the transition from final pay to average pay pension systems this guideline is no longer universally used.

The calculated replacement rates for men are, in general, lower than for women (figure 6). The variance in the replacement rates of men is due to a combination of causes. The contribution of the first pillar pension is high for young men but decreases to 19% from 40 years onward. The contribution of the second pillar rises from 25 to 50 years and decreases thereafter. The two effects combined result in the sinusoid below.

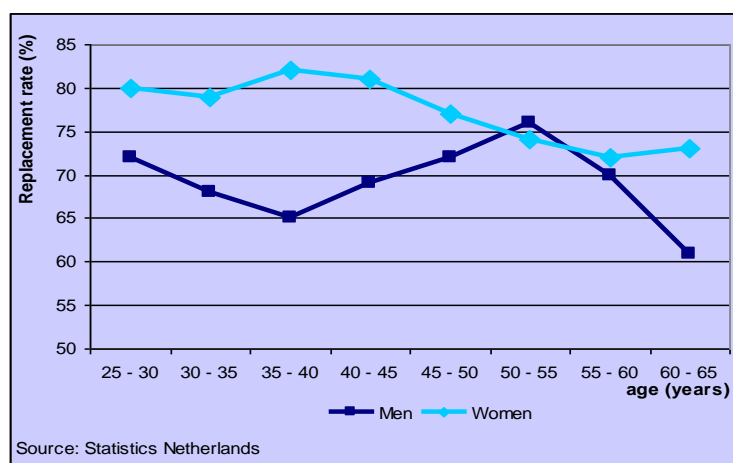


Figure 6. Replacement rate of employees in the Netherlands, based on achievable pension and taxable salary, 31 December 2005

⁹ Current and Prospective Theoretical Pension Replacement Rates. Report by the Indicators Sub-Group (ISG) of the Social Protection Committee (SPC)- May 19th 2006

¹⁰ The main differences between gross salary and taxable salary are pension premiums and unemployment insurances premiums

Being the sum of two pension pillars, the resulting replacement rate depends amongst others on changes in income and pension build-up. A career move that results in a sharp rise in income causes a decrease in the replacement rate. The same goes for an interruption of pension build-up by recent unemployment, prior to current employment. In case of reducing working hours¹¹, for example by a woman who combines work with raising children, the replacement rate increases, but of course the actual achievable pension will decrease. Finally changes in legislation with respect to the second pillar, which apply differently to different age groups, may affect the outcomes. New statistics for 2006 and onwards may provide additional insights in these effects.

It has been shown that the achievable pension for immigrants is lower than for natives, especially for men. The same applies to the income replacement rate (figure 7). However, for young women up to 30, the replacement rate is similar between natives and immigrants (figure 8). The replacement rate of older western immigrants follows the rate for natives, but is ten to fifteen percent lower. For older non-western immigrants the replacement rate drops with older age categories, resulting in a twenty to twenty-five percent difference with natives at retirement age.

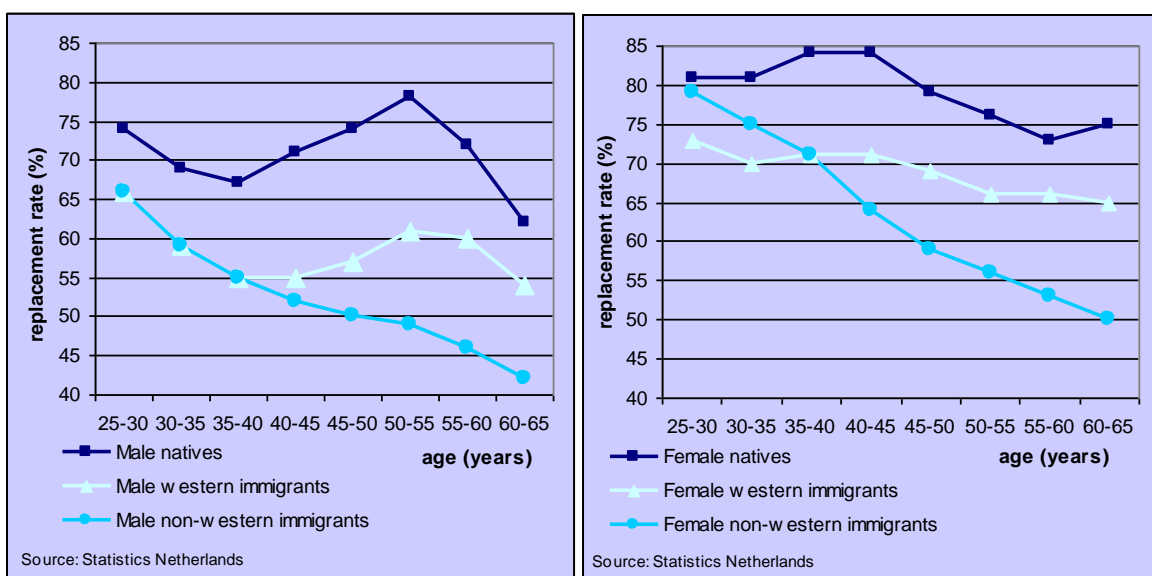


Figure 7 and 8. Replacement rates of male respectively female employees of different origin, 31 December 2005

The sharp decline in replacement rate of non-western immigrants is illustrated in figure 9. The replacement rate of first generation immigrants is low and decreases gradually with older age categories, but the second generation of immigrants, which is born in the Netherlands, has a less pronounced decline in the replacement rate.

¹¹ For more information on the influence of the course of life on pension rights in the Dutch system we refer to “Course of life and pension rights” by M. van de Grift and W. de Rooij (IARIW conference paper, 2008).

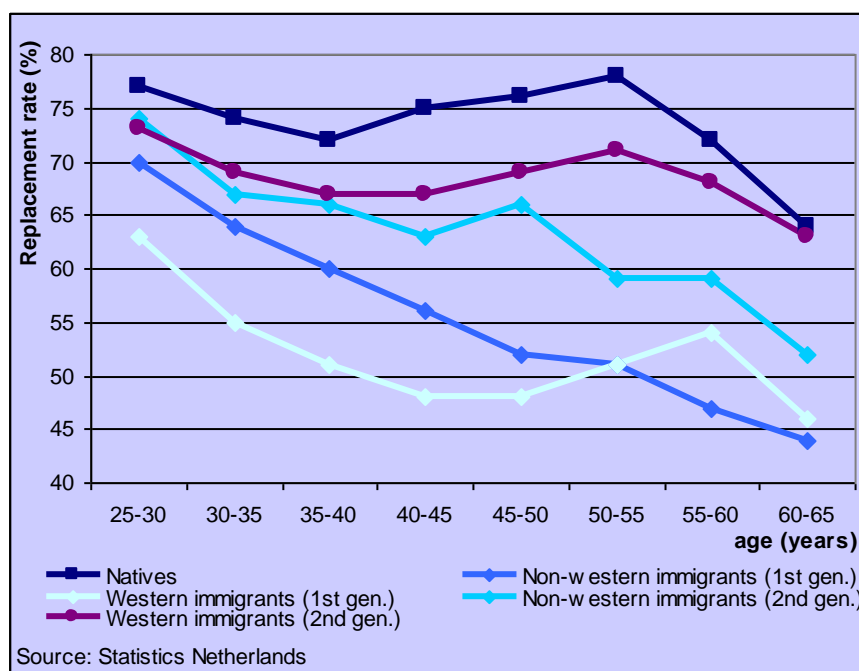


Figure 9. Replacement rate of different generations in the Netherlands, 31 December 2005

3.3 Conclusions

Based on figures on the achievable pension of employees, there are some groups who could experience a serious shortfall in income after retirement. Although none of the groups of employees have an average achievable pension below the Dutch social security threshold, there are some groups that on average have an income below the minimum wage.

The first group is the group of female employees over 55 years of age. They have an average achievable pension of approximately €14,000, which is below the minimum wage threshold of €15,178 gross per year. However, at household level the small pensions of women do not need to be a problem. This can often be compensated within a household with the relatively higher pensions of men, if they are or were married.

Other potentially vulnerable groups are female non-western immigrants. Because of the relatively low achievable pension of male non-western immigrants, the female pensions can often not be compensated within a non-western household.

Immigrants in general have low replacement rates. The first generation immigrants, and especially the older ones, may have a considerable drop in income after retirement and are therefore considered as a potentially vulnerable group.

In the next chapter we will examine if the groups that have a low achievable pension or a low replacement rate can expect income from third pillar annuities or if they have sufficient property or capital to compensate for their low first and second pillar achievable pension or low replacement rate.

4. Additional sources of old-age pensions

4.1 Third pillar pensions

Only a small part of the annuities that form the third pillar are currently available to Statistics Netherlands. The table below is based on insurance companies with a combined market share of 12%, based on the premiums paid. Despite the amount of records available, it is unknown how representative the data are since they are not the result of a random sample of participants in third pillar scheme.

It appears that there is only a little third pillar build up among non-western employees (table 2). While this group constitutes 8 percent of the active labour force in the Netherlands, they hold only 2 percent of the available annuities. In the figure shown, policies taken out by two people are split evenly between them.

As this is a work in progress, no final conclusion should be based upon these results. Reliable and final statistics will be developed when more data of insurance companies become available. The presented results make sense though despite their limitations, since people earning a higher income with some knowledge of more complex financial products will be more inclined to arrange a third pillar product.

Table 2. Distribution of third pillar annuities of insurance companies among employees in the Netherlands, 31 December 2005, (Source: Statistics Netherlands).

	Natives	Non-western immigrants	Western immigrants
Male employees	73%	1%	6%
Female employees	18%	1%	2%
Total	90%	2%	8%

4.2 Fourth-pillar pension: capital for retirement

As stated in the previous chapter there are some groups of employees, who will experience a considerable drop in income after retirement or whose income will fall below the minimum wage threshold. By examining these groups have capital or property that can be used as extra income after retirement, it can be determined if these groups are in actually vulnerable or not. Someone is said to have capital or property (a fourth pillar pension) if he or she has more than €20,000 in savings or if he or she is a homeowner.

According to the Dutch Ministry of Housing (VROM)¹² home ownership differs between origin groups (table 3).

¹² VROM 2006. Kenmerken van woningen naar etnische herkomst bewoners.

Table 3. Home ownership of dwellers from different origin in the Netherlands, January 2006,
 (Source: the Dutch Ministry of Housing (VROM)).

	Natives	Non-western immigrants	Western immigrants
Home owner	60%	46%	56%
Renting	40%	54%	44%

One of the groups identified as potentially vulnerable are female non-western immigrants. In figures 10 and 11 the percentage of employees with fourth pillar pensions within each age group is noticeably small for the female non-western immigrants. So only a small part (approximately 30 percent) of these women can compensate their possible low achievable pension the property they own or their savings. Based on these figures, female non-western immigrants are to be considered as a potentially vulnerable group.

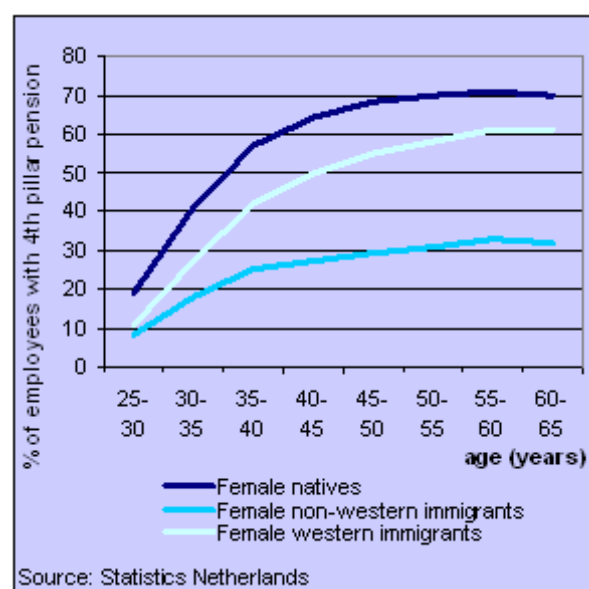
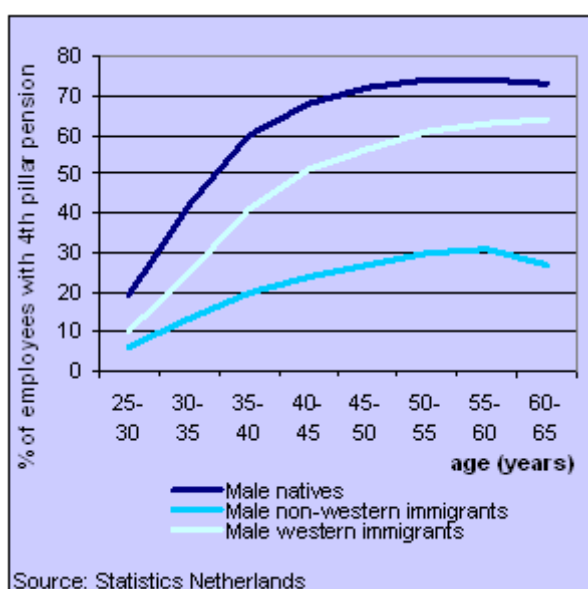


Figure 10 and 11: Percentage of male and female respectively employees with a fourth pillar pension in the Netherlands, 31 December 2005

Many in the over 55 groups of native Dutch and western immigrant women have a fourth pillar pension and may compensate their low achievable pension with this. Only a small percentage of the male non-western immigrants has fourth pillar pension. The group of female non-western immigrants cannot compensate for its low first and second pillar pension with a fourth pillar supplement.

Looking at another potentially vulnerable group, the first generation of non-western immigrants, the percentage that can compensate for their low achievable pension is also very low (figure 12). So many employees within this group can still expect a considerable drop in income after retirement.

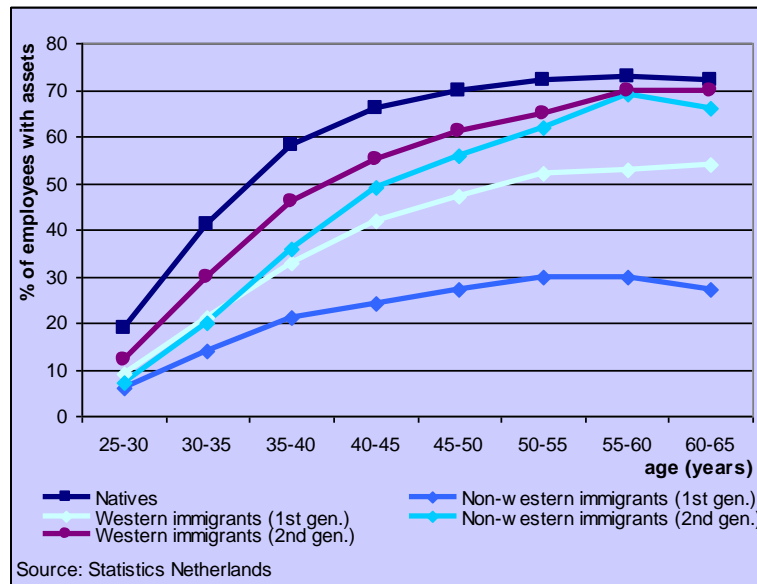


Figure 12: Percentage of employees with a 4th pillar pension in the Netherlands, 31 December 2005

Because of the relatively high percentage of women with a fourth pillar pension, female employees in general are not to be considered as a vulnerable group. Of the women over 40, at least 60 percent has enough capital or property to compensate for their low achievable first and second pillar pension.

4.3 Third and fourth pillar pensions as supplements

The data presented in this chapter are less evident than the data of the first and second pillar. We have insufficient data yet to state with complete confidence that the identified vulnerable groups have indeed no third pillar pension. However, it is rather obvious that employees in lower paid jobs have only a limited amount of money to spend on supplementary pension products.

In some cases third pillar products are not restricted to old age, and may be used prior to retirement to compensate for income reduction or to buy luxury goods.

When capital sources, other than private home-ownership and savings, would be made available, Statistics Netherlands could further improve the fourth pillar statistics. Capital formed by bonds and shares or luxury consumption goods could be included.

5. Conclusions and future developments

With the cooperation of the pension sector it has been possible to develop new statistics on pensions of Dutch employees. As data is collected and computed at individual level it is possible to provide a complete insight in the total pension of each individual. This is not only interesting for statistical purposes and for policymakers, but also for academic research based on micro-data.

In this research paper, population groups have been identified that have a low achievable pension or whose income will decrease considerably after retirement. Non-western men and women on average have the lowest achievable first and second pillar pensions among employees. This applies mainly to employed first-generation immigrants. The position for unemployed first-generation immigrants will be even less positive.

Third pillar pension products or fourth pillar capital could compensate this low achievable pension. However, non-western immigrants have a low participation rate in the third pillar and only less than one third of the non-western immigrants have sufficient property in the fourth pillar to compensate for shortfalls

The average income of non-western employees is lower than the income of native and other western employees. For non-western men, the average income is €24,900 (66% of their western counterparts), for female non-western employees, it is €18,400 (92%, compared to western women). This means that a large part of these vulnerable groups will fall below minimum wage or social security level after retirement. This may lead to an increased demand on social security funds or to an increase in remigration of non-western pensioners from the Netherlands to motherlands where price levels are lower.

However, we cannot yet draw this final conclusion, as the data used for the third pillar may be biased, and the data for the fourth pillar is not yet sufficiently quantified. Furthermore, the household position is not taken into account. In the near future Statistics Netherlands will aggregate the individual pension rights for a household statistic in order to show the combined rights of partners.

Besides this, figures of self-employed and unemployed individuals between 15 and 64 years of age will be produced. While employees generally participate in compulsory second pillar schemes, the self-employed have to make their own arrangements. The emphasis for this group is likely to be more on the third and fourth pillar. Unemployed people will be more dependent on the State's old-age pension or on their partners.