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Decent old-age incomes for all? A microdata analysis of poverty among older adults in the Netherlands

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Abstract

The fact that a considerable number of people in rich societies do not have the means to obtain the minimum necessities raises legitimate questions for policy. Older adults are especially vulnerable because of deteriorating health, rising costs of medical care and loss of labour income. We use administrative panel data over the period 2012–2021 and a budget-based poverty line to estimate the extent of poverty among Dutch citizens aged 50 years and older. Our results show that old-age poverty is low compared to poverty among younger age groups, especially among the over-65s. Moreover, it is more prevalent, more frequently occurring and more persistent among first-generation immigrants than among natives. Second-generation immigrants are also more vulnerable, but their disadvantage is much smaller and limited to people who have not yet reached retirement age. These results point to the importance of the Dutch state pension scheme in preventing poverty among older adults.

KEYWORDS

ageing, minimum income support, old-age income, poverty, reference budgets, state pension

INTRODUCTION

Poverty remains an important social problem within the context of both poor and rich societies. It occurs among all ages, but older adults are especially vulnerable for at least three reasons (Niimi & Horioka, 2023). First, not all of them have access to an adequate state pension or social safety net. Second, they are faced with a decline in their labour income due to deteriorating health, and formal and informal rules regarding retirement. Third, they are more likely to be confronted with rising costs of medical care. Because of their higher risk, effective social policy requires a good understanding of poverty among older cohorts of the population. The purpose of this article is to contribute to that understanding within the context of rich societies with extensive welfare states. We focus on the Netherlands because of the availability of detailed and complete administrative microdata.

Poverty is part of the broader concept of social inequality, which involves not only differences in income, but also disparities in employment, education, health, financial assets and social connections, among other things (Grusky & Hill, 2018). A considerable part of the inequality literature focuses on differences between social groups, for example by age, ethnicity, gender, race or socioeconomic status (Grusky & Hill, 2018). Some studies argue that social disadvantages can reinforce each other and that being part of several disadvantaged groups can therefore generate larger adverse effects on social outcomes than the simple sum of the individual group

effects. This phenomenon, often referred to as intersectionality (Crenshaw, 1989), implies that disadvantages are best studied together rather than separately. Following this line of reasoning, we not only look at old age as a stand-alone dimension of vulnerability to poverty, but also study its interaction with other sources of vulnerability. Given the important role of the state pension in preventing old-age poverty, we look in particular at two factors that influence how much state pension people receive, namely their country of origin and their age in relation to the statutory retirement age.

Poverty has many causes, related to political, structural and behavioural factors (Brady, 2019). Political explanations focus on the process through which power and institutions shape collective decisions about the redistribution of income. Within the context of Dutch income support for older adults, the most important example is the state pension scheme, which provides a decent social safety net for a vast majority of the older population. Despite the relative generosity of this scheme, there are still concerns about specific groups of older people not being able to make ends meet. Examples include people who do not qualify for a full state pension, people who have not yet reached the state pension age, and people for whom the state pension is inadequate because they face unusually high expenses.

Structural explanations for poverty emphasise the importance of demographic, economic or social developments, for example. Two demographic developments in particular contribute to current concerns about old-age poverty in the Netherlands. The first is the sharp increase in the inflow of immigrants in recent years (Statistics Netherlands, 2024a). Since most of them will not be able to meet the residency requirement for accruing a full state pension, it is anticipated that an increasing share of older adults will be dependent on social assistance in the future.

The second demographic trend that adds to concerns is the process of population ageing, caused by declines in fertility and increases in longevity. This is because the Dutch state pension scheme is financed on a *pay-as-you-go* basis (Dutch Federation of Pension Funds, 2024), which means that the rising share of older people (Statistics Netherlands, 2023a) places a growing financial burden on younger generations, despite the gradually increasing retirement age. This growing burden raises doubts as to whether the generosity of the scheme can be maintained in the future.

Old-age poverty is the subject of a large empirical literature (Ebbinghaus, 2021; Niimi & Horioka, 2023). Objectives include identifying the determinants and consequences of poverty, documenting the challenges or strengths of poor adults, and, closest to our analysis, estimating the prevalence of old-age poverty (Kwan & Walsh, 2018). Most studies use cross-sectional surveys among a selected number of households. While this is understandable, given that population-wide data based on tax registries are generally not available, it limits the possibilities of studying poverty from a dynamic perspective and among subgroups of the older population. Country estimates are therefore typically limited to aggregate statistics, such as the overall prevalence of poverty.

Our main contribution is that we use administrative panel data for almost the entire Dutch population over the period 2012–2021. This allows us to study old-age poverty in more detail and more accurately than previous studies (Meyer & Mittag, 2019). We also contribute to the literature in other ways. First, building on work by Vrooman et al. (2020) and Human Resources and Social Development Canada (2006), we apply a budget-based poverty line that directly indicates what people in Dutch society need as a minimum to provide for their livelihood. Second, we take into account out-of-pocket medical expenses, which are usually not reflected in people's disposable income, but are important in determining whether they should be classified as poor, and are more common among older adults. Third, we study not only the annual prevalence and intensity of poverty, but also its persistence and multiyear frequency. This is important because poverty is a dynamic condition and not a static one, and the chronic poor may have different needs than the transitory poor. It also matters because annual poverty rates may underestimate the number of people struggling with poverty in 1 year or another.

This article also relates to other literature. First, it fits in with studies on the measurement of poverty (Silber, 2023). Second, it relates to the literature on demography and the sustainability of public pensions. A central question in this line of work is how public pension systems, against the backdrop of ageing populations, can be designed in such a way that they are financially sustainable but also do justice to fundamental principles of fairness and intergenerational equity (e.g., Fouejieu et al., 2021). Third, this article is connected to studies that use administrative data to analyse the evolution of poverty over time (Alm et al., 2020; Larrimore et al., 2022; Notten et al., 2023; Statistics Netherlands, 2023b). While most are based on repeated cross-sections, a few uses large panel data sets to analyse poverty at the national level (e.g., Larrimore et al., 2022). While these studies use data sets similar to ours, they differ in terms of their geographical focus, the scope of their analysis, the methods they employ and/or the research questions they address.

POLICY CONTEXT

The introduction of the state pension ('AOW') in 1957 and the minimum income scheme ('bijstand') in 1965 laid a solid floor in the Dutch income distribution, which became more generous during the 1960s and 1970s (Vrooman & Wildeboer Schut, 2013). Deteriorating economic conditions, a more negative attitude towards state intervention, and concerns about fiscal sustainability led to spending cuts in subsequent decades. As a consequence, the income security of the working-age population declined after 1990. For people above retirement age, however, it continued to improve (Vrooman, 2016).

The state pension remains the main form of public income support for older adults. It is a basic, non-means-tested provision paid by the government to everyone living in the Netherlands, once they have reached the statutory retirement age. For decades, this age was 65 years, but in recent years it has been raised by a few months a year. As of 2024, it stands at 67 years and can increase annually, whereby each additional year of life expectancy will result in an 8-month higher state pension age (Dutch Federation of Pension Funds, 2024).

The amount of a full state pension and its half-yearly adjustment are derived from the statutory minimum wage. How much an individual receives varies with household composition and depends proportionally on the number of years lived in the Netherlands in the 50 years prior to retirement. The total state pension budget is financed on a *pay-as-you-go* basis, that is, from capped income taxes of individuals younger than the retirement age. While important, the state pension represents only the first pillar of the Dutch pension system (Dutch Federation of Pension Funds, 2024). Most recipients also receive an occupational (second pillar) or private (third pillar) pension. During the period from 2012 to 2021, on average 99% of all individuals aged 65 and over received a state pension, while on average 77% received an occupational or private pension (Statistics Netherlands, 2024b).

Older adults who are not eligible for a (full) state pension ('AOW'), and who have little income and assets, may be entitled to social assistance. In particular, the Dutch minimum income scheme provides a last-resort safety net that tops up existing income, if any, and provides monthly support up to the *social minimum*. This represents the government's norm for a minimum level of subsistence. The amounts depend on age and living situation, and are derived from the statutory minimum wage. For individuals above retirement age (67+), minimum income support is provided through the supplementary income provision for the older population ('AIO'). Older individuals below retirement age (50–66) instead depend on social assistance for people of working age ('bijstand'). In 2021, the average net monthly amounts for a single person were €1077 ('bijstand'), €1198 ('AIO') and €1290 ('AOW') (Rijksoverheid, 2020, 2021; SVB, 2024a). Scholte and Lammers (2017) previously showed that households living on 'bijstand' or 'AIO' in 2014 fell below the poverty line of Statistics Netherlands, while those with a full 'AOW' did not.

Older adults may also be entitled to various income and assets tested allowances.[1] Examples include the housing allowance ('huurtoeslag'), which supports households in paying the rent, the healthcare allowance ('zorgtoeslag'), which contributes to the cost of mandatory health insurance, and special social assistance ('bijzondere bijstand'), which compensates households in the event of unexpected expenses. These provisions are part of the wider range of targeted benefits, allowances and tax credits that characterise the Dutch tax and benefit system. While intended to provide income support in a cost-effective manner, this system is increasingly criticised for being too complex (Goderis & Vlekke, 2023).

In comparison to other countries, the Dutch tax-benefit system was among the best performers in 2013 when it comes to lifting people over 65 out of poverty (Caminada et al., 2019). By comparison, it did less well for people of working age, and even worse for children. In recent years, the Dutch government has successfully reduced poverty, especially among children (CPB, 2024). It also introduced comprehensive support packages to mitigate the impact of the global pandemic and energy crises (e.g., Adema et al., 2021). Our findings suggest that, as a result, poverty in fact became less prevalent after 2019.

Dutch residents accrue 2% of their state pension for each year they live in the Netherlands prior to retirement, regardless of their income or employment status. As a result, foreign-born immigrants on average receive lower amounts than native-born individuals. Lössbroek et al. (2024) document how much entitlement the 20 largest retired immigrant groups had accrued in 2020. This ranged from an average of 96% of a full state pension for retired Indonesian immigrants (close to the 99% for native-born pensioners) to less than 30% for Iraqi and Afghan pensioners. Only in exceptional circumstances, Dutch residents do not accrue state pension, such as when they work for an international organisation or embassy (Lössbroek et al., 2024; SVB, 2024b). The

[1]Income and assets tests are typically carried out at the household level, including all fellow residents (Ministry of Finance, 2024). Tests for the healthcare allowance are carried out at the individual level but also take into account the income and assets of a possible allowance partner and the assets of minor children living at home.

reported differences reflect considerable variation in the age at which retired immigrants came to the Netherlands. While immigrants from nearby countries Belgium, France, Germany and the United Kingdom had already built up pension rights in their country of birth, this was much less the case for immigrants from other countries, and in fact very rare for immigrants from outside Europe, with the exception of Aruba and Curaçao (Lössbroek et al., 2024). Due to the large influx of immigrants in recent years (Statistics Netherlands, 2024a), the share of older adults with incomplete Dutch state pension accrual is expected to rise in the future. To the extent that these people have no supplementary income or assets, an increasing number of people will depend on the supplementary income provision for the older population ('AIO').

There are also concerns about the impact of population ageing on the financial sustainability of the Dutch state pension scheme. The share of people over 65 grew from 11% in 1980 to 20% in 2024, and is expected to rise further to 25% in 2040 (Statistics Netherlands, 2023a). By then, this age group will have 5 million individuals, a threefold increase from 1980 (Statistics Netherlands, 2023a). Since the working age population (those aged 20–64) grows at a much slower pace, the old-age to working-age ratio is gradually increasing: from one in five in 1980 to one in three in 2024 to (nearly) one in two in 2040 (Statistics Netherlands, 2023a). These numbers are comparable to the average of OECD member states (OECD, 2023).

To keep the *pay-as-you-go* state pension scheme affordable for future generations, the retirement age is being gradually raised since 2013, although now at a slower pace than initially agreed. While this helps to reduce the financial pressure on the working-age population, the ratio of state pension recipients to individuals of working age increased from 20% in 1980 to 31% in 2024 and is expected to rise to 41% in 2040 (Adema & Van Tilburg, 2019). By then, the current number of 3.6 million recipients is projected to have grown to 4.6 million (SVB, 2023). As a consequence, it may prove difficult to keep old-age poverty at its current level.

Given the importance of the state pension scheme in preventing old-age poverty, we study old age not only as a stand-alone dimension of vulnerability to poverty, but also in conjunction with two factors that influence how much state pension people receive. The first is people's age in relation to the statutory retirement age. If a full state pension typically guarantees an income above the poverty line, whereas social assistance for people of working age does not, then poverty may be higher for old-age cohorts that have not yet reached the retirement age than for cohorts that have. The second factor corresponds to people's country of origin. Given that the amount of state pension depends on the number of years lived in the Netherlands, old-age poverty may be higher for foreign-born than for native-born individuals.

METHODS AND DATA

We use the *generalised reference budget approach* developed by the Netherlands Institute for Social Research (SCP) and used since 2007 to measure poverty in the Netherlands (Vrooman et al., 2020). This approach classifies individuals as poor when they consistently lack the means to acquire the goods and amenities that are considered to be the minimum necessary in Dutch society. For a number of years now, it has formed the basis for the Dutch government's monitoring of progress in poverty reduction (House of Representatives of The Netherlands, 2024). The approach can be described using the three steps involved in measuring poverty: determining the poverty line, defining an indicator of welfare, and aggregating micro information on the poverty of individuals into macro indicators that capture the magnitude of poverty in society (World Bank, 2005).

Determining the poverty line

The poverty line is based on a reference budget that indicates what a single person in Dutch society needs as a minimum to provide for its livelihood. This *modest-but-adequate* budget includes basic needs such as food, clothing, housing, transport, insurance, internet access and personal care, supplemented by minimal spending on recreation and social participation. In 2017, the budget-based poverty line amounted to €1135 per month for a single person. A detailed overview of the contents of the budget can be found in Goderis et al. (2018) and Vrooman et al. (2020). The items and amounts were taken from the Budget Handbooks of the National Institute for Family Finance Information (Nibud, 2008, 2017). The only exceptions are the amount for rent, which was based on a large housing survey (BZK and CBS, 2016), and the amount for insurance, which excluded the premium for basic health insurance because it is already subtracted from income by Statistics Netherlands (Goderis et al., 2018). Nibud is an independent foundation with detailed knowledge of household expenses and a long history of publishing budget handbooks with minimum

norm amounts. These norm amounts are determined on the basis of expert knowledge (e.g., on the minimally required quantity and quality of food, and the corresponding prices), and data on the actual consumption of low-income households. In addition, the *modest-but-adequate* budget has been validated through the use of consensual focus groups (Vrooman et al., 2020). In these groups, citizens from different backgrounds assessed which items are minimally required for a life free from poverty, and what budget is needed to acquire them.

The budget-based poverty line for a single person was translated into poverty lines for larger households by applying an adjusted version of the equivalence scale of Statistics Netherlands (Siermann et al., 2004; Statistics Netherlands, 2020). This scale was developed using budget research in which household expenditures were decomposed into a large variety of items, each of which was attributed to one or more household members, differentiating between adults and children (Siermann et al., 2004). The information was then used to compute household-specific micro equivalence factors. To aggregate these into macro equivalence factors for the most common household types, they were subsequently regressed on a number of household characteristics, including income and age profile. Equivalence factors for other household types were determined by non-linear extrapolation (Siermann et al., 2004). An important advantage of this approach is that the additional costs of individual household members are determined on the basis of the actual spending of the household in question, and not on the basis of a comparison between different households. This makes the equivalence scale more robust than other scales, including the OECD modified scale—which does not take into account economies of scale other than vis-à-vis single households, and the OECD square root scale—which does not differentiate between adults and children. Incidentally, the equivalence scale is reasonably in line with the relative minimum expenditures estimated by Nibud for different types of households. It has the advantage that it is easier to apply and less sensitive to annual fluctuations than constructing a separate budget-based poverty line for each household type (Vrooman et al., 2020).

While a new budget could be compiled every year, this process is labour-intensive and risks considerable year-to-year variability due to changes in the composition of the budget. Instead, the *generalised reference budget approach* uses an indexation mechanism, based on the recommendations of Citro and Michael (1995). This mechanism adjusts the poverty line annually in such a way that it not only reflects changes in the consumer price index but also rises proportionally with a moving average of real basic spending on food, clothes and housing.[2] Updating the poverty line in this manner means that it does not represent a constant level of purchasing power but increases, less than proportionally, with the general level of prosperity in society. This is because people with higher incomes usually spend a smaller proportion of their income on basic items. The mechanism reflects the notion that poverty depends on the social context in which people live, and that poverty lines can therefore vary across countries and over time (Sen, 1985; Smith, 1909[1776]). Using a moving average makes the poverty line more robust to short-term fluctuations. It also fits well with the observation that perceptions of minimum needs generally respond with some delay to socioeconomic developments (Vrooman et al., 2020).

The annual indexation of the poverty line allows the content of the reference budget to be rebased less frequently, every 5–10 years. This rebasing involves reviewing and updating the basket of goods and amenities so that it reflects the prevailing norms for minimum necessities in Dutch society. So far, SCP has rebased the *modest-but-adequate* budget in 2008 and 2017 (Goderis et al., 2018; Soede, 2011). A new rebase and revision were being carried out at the time of writing this article (see Van den Brakel et al., 2024). On both occasions, this task was carried out as part of a broader revision of the approach to measuring poverty. In this article, we use the poverty line of 2017, and adjusted poverty lines for the years 2018–2021 and 2012–2016, based on forward and backward indexation. Over the entire period, the poverty line for a single person rose from €1069 per month in 2012 to €1293 per month in 2021. SCP publishes these amounts in its regular poverty reports (e.g., Hoff et al., 2019). From 2025 onwards, Statistics Netherlands will take on this responsibility (Van den Brakel et al., 2024).

The budget-based poverty line is not the only threshold for measuring poverty in the Netherlands. Statistics Netherlands uses the *low-income threshold* (Statistics Netherlands, 2023b). This poverty line reflects the level of social assistance in 1979, when it was most generous, and is annually adjusted for consumer price inflation so as to keep it constant in purchasing power terms. The European Commission adopts a fully relative definition

[2]The moving average is constructed as follows. First, for each year, average basic spending on food, clothes and housing per equivalent single-person household is collected for that year and the four preceding years from the national accounts (Statistics Netherlands, 2023c), using the equivalence scale of Statistics Netherlands. Second, the data for each of the four preceding years is expressed in current year's prices, using the official consumer price index (Statistics Netherlands, 2023d, 2023e). Finally, for each year, the data for the current year and the four preceding years are averaged.

of poverty. Its main estimates are based on the *at-risk-of-poverty* (*AROP*) *threshold*, which corresponds to 60% of the median equivalised disposable household income (Maquet & Stanton, 2012). The OECD adopts a similar approach but applies a stricter threshold of 50% (Förster & Mira d'Ercole, 2012).

The literature on the advantages and disadvantages of different types of poverty lines is beyond the scope of this article (see Darvas, 2019; Datt & Lanjouw, 2023; Menyhért et al., 2021; Penne et al., 2020; and Vrooman et al., 2020, for recent contributions). A common criticism of poverty lines that represent a constant amount of purchasing power is that they fail to recognise the contextual nature of poverty (Sen, 1985). Standards for a minimally decent life change when a society becomes richer. According to some, poverty lines should therefore be allowed to vary across countries and over time, in order to properly reflect such changes. Fully relative poverty thresholds are often criticised for essentially measuring income inequality rather than poverty (Darvas, 2019). They also raise objections of principle. In an entirely relative approach to poverty, there is no direct connection to the actual minimum needs that people have to meet in their society (Vrooman, 2009). Budget-based poverty lines are not without problems either. One objection is that they rely on experts to define the standards, which could lead to personal biases and preferences affecting poverty estimates (Vrooman, 2009). All things considered, the poverty line based on the *modest-but-adequate* budget is our preferred threshold. It has two advantages over other methods. First, it applies a poverty line that directly reflects what people in Dutch society need as a minimum to provide for their livelihood, and explicitly takes into account changes in these societal norms over time. Second, it is relatively robust to short-term business cycle fluctuations.

Defining an indicator of welfare

We next assess whether people have sufficient resources to purchase the items in the reference budget. A common approach is to measure welfare in terms of consumption or income (World Bank, 2005). While consumption data become available every 5 years for a sample of Dutch households, income data are annually available for (almost) the entire Dutch population since 2011 (Statistics Netherlands, 2024c). SCP therefore uses annual household income as its indicator of welfare, and compares this to the (annualised) poverty line to classify individuals as poor or non-poor.

The income concept that we use corresponds to all money and near-money income that households actually have at their disposal to acquire the items in the *modest-but-adequate* budget, and is inspired by the approach to measuring poverty documented in Citro and Michael (1995). This represents two improvements over using gross income. First, all non-discretionary expenditures on items other than those in the budget are deducted, including taxes, out-of-pocket health expenditures, and spending on items that are necessary to generate income from work, such as childcare. Second, near-money or in-kind benefits that households have available to purchase the goods and amenities in the reference budget are added to their income. In practice, we operationalise this income concept by using an adjusted version of the measure of disposable household income made available by Statistics Netherlands.[3] This measure is based on the theoretical income concept of Hicks (1946). Hicks defines income as the maximum value that people can freely consume in a given period in the expectation of being as well off at the end of the period as they were at the beginning. This means that someone has not withdrawn or saved, so that his assets have remained unchanged. In this view, people's free spending possibilities determine their income. In concrete terms, disposable household income consists of the following components (Statistics Netherlands, 2016, 2024c):

- primary income (labour and capital income) (+);
- social security benefits (social insurance and social provisions);
- tied transfers such as rent allowance (+);
- incoming income transfers (i.e., received partner alimony) (+);
  - income tax (-);
  - social security contributions (-);
  - outgoing income transfers (i.e., paid partner alimony) (-);
  - health insurance premiums (including average expenditure on deductible) (-).

The vast majority of the income data comes directly from income tax returns, collected by the Dutch Tax Authority (Statistics Netherlands, 2024c, 2024d). Income that is not reported, such as informal income, income from criminal activities, and unreported income from abroad, is not included. Due to missing data, local income support by municipalities is also not included. The temporary support measures introduced to dampen the impact of the global

[3]We use the variable 'INHBESTINKH' from the file 'INHATAB' of Statistics Netherlands, which we access via remote access.

pandemic and energy crisis (including the energy allowance) are included.

Following Citro and Michael (1995), SCP makes three adjustments to the measure of disposable income of Statistics Netherlands (Goderis et al., 2018). First, it uses the rent allowance that households would receive if they would pay a monthly rent that equals the reference amount in the reference budget (adjusted for household size and composition), all else being equal. This means that we do not use the rent allowance that people actually receive, but the rent allowance that fits the reference home in the budget. This is in line with the notion that poverty is determined on the basis of people's resources, and not on the basis of their actual spending. It also avoids the counterintuitive scenario of people 'lifting themselves out of poverty' by moving to a more expensive home and receiving more rent allowance. Second, SCP deducts actual, non-reimbursed medical expenses from households' disposable income, based on information from the Dutch tax authority. This is because the use of one norm amount in the reference budget would not do justice to the large heterogeneity in health care expenditures between people and the inescapable nature of these expenditures (Citro & Michael, 1995). Since Statistics Netherlands already deducts health insurance premiums and average expenditures on deductibles, SCP deducts only the additional expenses that people incur. Examples include compulsory personal contributions and expenses that are not reimbursed by health insurance companies, insofar as these are tax deductible, exceed the threshold for deduction, and are declared in people's tax returns. The relevant data are collected by Statistics Netherlands at the request of SCP, and are based on information from the Dutch Tax Authority. To account for medical expenses that do not exceed the threshold for tax deduction, SCP deducts a supplementary, average amount per person, based on information from 2017. Finally, the third adjustment to the measure of income is that SCP deducts the costs of childcare (net of childcare allowance).[4] This reflects the notion that the costs that people have to incur in order to participate in the labour market, should be deducted from their income (Hicks, 1946).

The administrative micro panel data that we use to measure household income in a given year during the period 2012–2021 relate to all persons who were officially living in the Netherlands at the start of that year, in private households with observed income (Statistics Netherlands, 2024c). This excludes the 219,000 to 259,000 individuals living in an institution, such as a nursing home, care home, children's home, family-replacement home, rehabilitation centre, or penitentiary, who, in principle, stay there for a longer period of time (Statistics Netherlands, 2024e). It also excludes the 25,000–40,000 homeless people (Statistics Netherlands, 2024f) and individuals with unobserved income, such as temporary migrants. In addition, we exclude student households (because we do not observe the financial contribution of parents) and households with incomplete annual incomes (typically due to death or migration during the year). In practice, the vast majority of the Dutch population is included in our data. In 2017, this corresponded to 16.5 million individuals, out of a total population of 17.1 million (Statistics Netherlands, 2024a).

Although we use our full data set to compare some of our estimates to those of other age groups, our main analysis focuses on the older cohorts of the Dutch population. Since many individuals begin to experience ageing-related shifts in their health, work and financial planning in their 50s, even if they have not yet retired, we define older cohorts as age groups of 50 years and older.[5] This definition aligns with international ageing studies, such as the Survey of Health, Ageing and Retirement in Europe (SHARE). In the Netherlands, 6.7 million people were 50 years or older in 2017 (Statistics Netherlands, 2024g). To allow for heterogeneity across age groups and to assess whether old-age poverty depends on people having reached the statutory retirement age, we construct nine 5-year age cohorts (50–54, 55–59, ..., 85–89, ≥90). In addition, we study old age in relation to people's country of origin by making a distinction between natives (native-born individuals with native-born parents), first-generation immigrants (foreign-born individuals) and second-generation immigrants (native-born individuals with at least one foreign-born parent), following the classification of Statistics Netherlands over the period 2012–2021.[6] We also

[4]We use the variables 'RKT_KOST' and 'RKT_TSL' from the file 'KINDEROPVANG' of Statistics Netherlands for the years 2012 to 2021. Since the costs of childcare are already included in the equivalence scale of Statistics Netherlands, we use an adjusted version of this scale, in which the costs of childcare are excluded (Goderis et al., 2018).

[5]In all our estimations, the division into age groups is based on people's age at the start of the calendar year in question. We use the variable 'GBAGEBOORTEJAAR' from the file 'GBAPERSOONTAB' of Statistics Netherlands, which we access via remote access.

[6]We use the variables 'GBAGENERATIE' and 'GBAGEBOORTELAND' from the file 'GBAPERSOONTAB' of Statistics Netherlands, which we access via remote access. Incidentally, we adopt a broad definition of immigration, encompassing the concept of a 'second-generation immigrant'. In 2022, a new terminology was adopted, which distinguishes between people born in the Netherlands and abroad, and the number of parents born abroad (Statistics Netherlands, 2022).

compare first-generation immigrants from inside and outside the EU and Western Europe.

Generating macro indicators of poverty

Once it is determined whether individuals should be classified as poor or non-poor, this information is aggregated into four macro indicators that reflect the level of old-age poverty in Dutch society.

The first indicator corresponds to the fraction of older adults living below the budget-based poverty line—a measure of the *prevalence* of old-age poverty. In particular, we compute the ratio of the number of older individuals living in a household with a disposable income below the poverty line to the total number of older individuals.

The second indicator documents how far the incomes of the poor are below the budget-based poverty line. Specifically, we report the median equivalised difference between poor individuals' household income and the applicable poverty line, expressed as a percentage of the equivalised poverty line. This captures the *intensity* of old-age poverty.

The third indicator denotes the share of older people living below the budget-based poverty line in a base year, who remain in poverty in subsequent years. This reflects the *persistence* of old-age poverty. Since it is typically defined in terms of a minimum number of years in poverty over an extended period (Eurostat, 2023), our baseline approach does not impose that poverty intervals have to be continuous. Instead, we start from the older adults who were poor in the base year and document for each of the subsequent years the percentage of these people who were poor in that particular year, even if they were not poor in one or more of the intervening years. To assess the robustness of our findings, we also conduct the analysis under the requirement that poverty intervals should be continuous, so that the computed shares of individuals remaining in poverty only include those who had been continuously poor since the starting year. In addition, we assess whether the results are different when we choose a different base year, or when we focus exclusively on people whose poverty spell had just begun (i.e., those who were poor in the base year but not in the year prior to that).

Finally, the fourth indicator reveals the *multiyear frequency* of old-age poverty and is composed of two subindicators (Larrimore et al., 2022). The first reports the share of older adults (based on their age at the beginning of 2012) who spent at least 1 year in poverty during the period 2012–2021. The second shows how many years poor older adults spent in poverty on average during this period.

RESULTS

The prevalence and intensity of old-age poverty

Prevalence over time and across age groups

Figure 1 illustrates the prevalence of poverty in the Netherlands over the period 2012–2021. For comparison, it shows poverty rates not only for people over 50 but also for children and younger adults. Given the importance of the state pension in preventing old-age poverty, we divide the over-50s into a group below the (initial) statutory retirement age of 65 and a group above it. The results indicate that on average 5.6% of 50- to 64-year-olds were poor, while that percentage was considerably lower for over-65s (2.3%). This is consistent with the observation that a full state pension usually guarantees an income above the poverty line, whereas minimum income support for people of working age does not. In general, poverty among people over 50 has been low on average compared to other age groups. Poverty among children was much higher with an average of 7.8%. The same applies to a lesser extent to younger adults, of whom an average of 5.8% lived below the poverty line. Figure 1 also shows that poverty under the age of 50 followed a downward trend, while old-age poverty did not decrease structurally.

Prevalence and intensity by age and migrant status

The old-age poverty statistics mask considerable heterogeneity. To illustrate this, Figure 2 documents poverty among nine old-age cohorts of the native, first-generation immigrant and second-generation immigrant populations in 2021. The results in Figure 2a confirm that the prevalence of poverty among 50- to 64-year-olds was on average higher than among people above 65. It was highest for people just below retirement age. These results apply regardless of people's migration background. However, Figure 2a also points at considerable differences in the old-age poverty rates of natives, first-generation migrants and second-generation migrants. While an average of 3.2% of natives were poor in old age, this share was as high as 12.5% for first-generation immigrants. Second-generation immigrants also faced a higher old-age poverty risk than natives, but their disadvantage was smaller

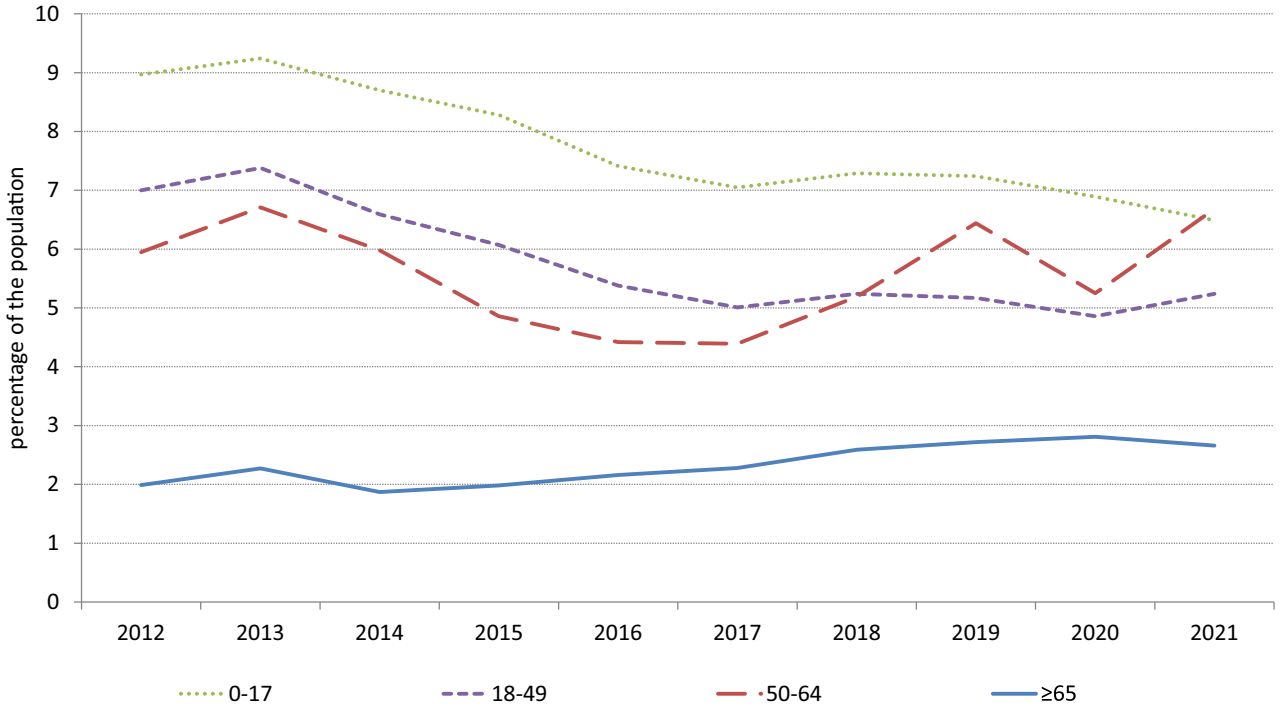

FIGURE 1 The prevalence of poverty in the Netherlands over time and across age groups. Results are based on the budget-based poverty line, the disposable income concept, the measure of the prevalence of poverty, and the micro data described in 'Methods and data' section. The figures for the age cohorts 0–17 and 18–49 are included for comparison. *Source*: Authors' own calculations based on data from Statistics Netherlands.

and limited to 50- to 64-year-olds. Once they had reached the statutory retirement age, they were just as likely to be poor as natives. This is presumably because second-generation immigrants were born in the Netherlands and therefore accrue state pension entitlements that are comparable to the native population. First-generation (foreign-born) immigrants on average accrue a lower state pension and are therefore more likely to end up below the poverty line, all else being equal. Additional results (not shown) indicate for all cohorts that old-age poverty was more prevalent among first-generation immigrants from outside the EU and Western Europe than among those from within the EU and Western Europe.

The intensity of old-age poverty was higher for the cohorts above retirement age than for those below retirement age (Figure 2b). This could reflect higher out-of-pocket medical expenses or reduced possibilities to generate primary income. Figure 2b also reveals that the intensity did not differ much between natives, first-generation immigrants and second-generation immigrants. This may be explained by the fact that minimum income support provides a solid floor in the income distribution. While first-generation immigrants and, to a lesser extent, second-generation immigrants are more likely to be poor than natives, any large poverty gaps are capped by the social safety net. Overall, the results in Figure 2b point to an average income shortfall of the poor of 9% of the poverty threshold.

The persistence and multiyear frequency of old-age poverty

Persistence by age and migrant status

Figure 3 shows the share of older adults living below the poverty line in 2012 who remained in poverty in subsequent years. The results in Figure 3a indicate that, of all 50- to 64-year-old natives who were poor in 2012, 71% were in poverty 1 year later, 54% were in poverty 2 years later, 22% were in poverty 5 years later, and 25% were in poverty 9 years later. Note that this does not necessarily mean that 29% of poverty spells last only 1 year since the starting year of our analysis is not necessarily the starting year of the observed poverty spells. Compared to 50- to 64-year-old natives, the persistence of poverty for natives above 65 was lower in the first 2 subsequent years, but very similar after 9 years (Figure 3b).

Figure 3 also demonstrates that migration status matters for the persistence of old-age poverty, in much the same way as it did for the prevalence of poverty. Compared to natives, poverty is considerably more persistent

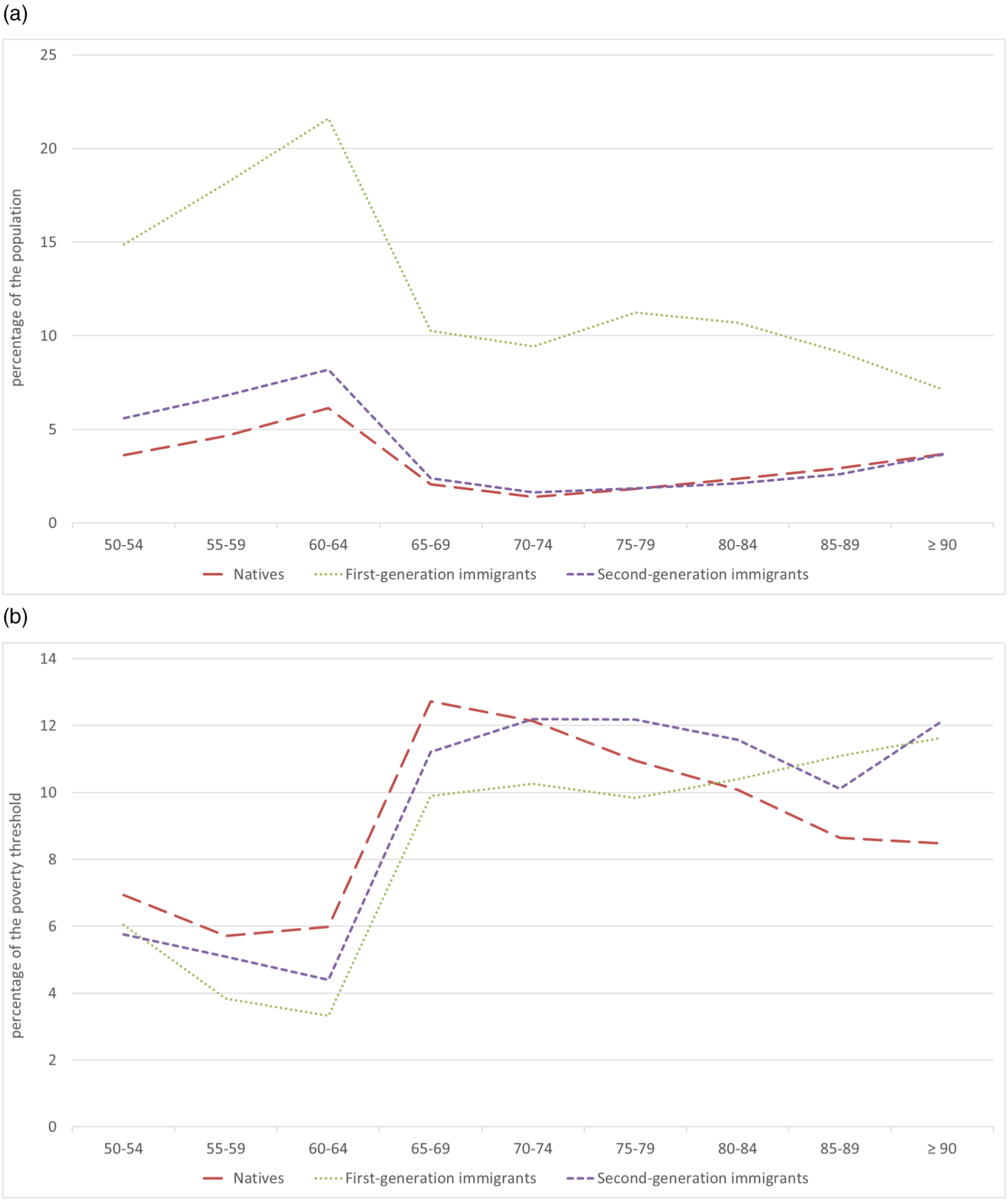

FIGURE 2 The prevalence and intensity of old-age poverty in the Netherlands by age and migrant status, 2021. (a) Prevalence. (b) Intensity. Results are based on the budget-based poverty line, the disposable income concept, the measures of the prevalence and intensity of poverty, and the micro data described in 'Methods and data' section. *Source*: Authors' own calculations based on data from Statistics Netherlands.

among first-generation immigrants. Of those aged 50–64 who were poor in 2012, 39% were still poor 9 years later (Figure 3a). This share was even higher among the over 65s. Of this group, 47% remained poor after 9 years (Figure 3b). These results are in line with the observation that older foreign-born individuals have on average

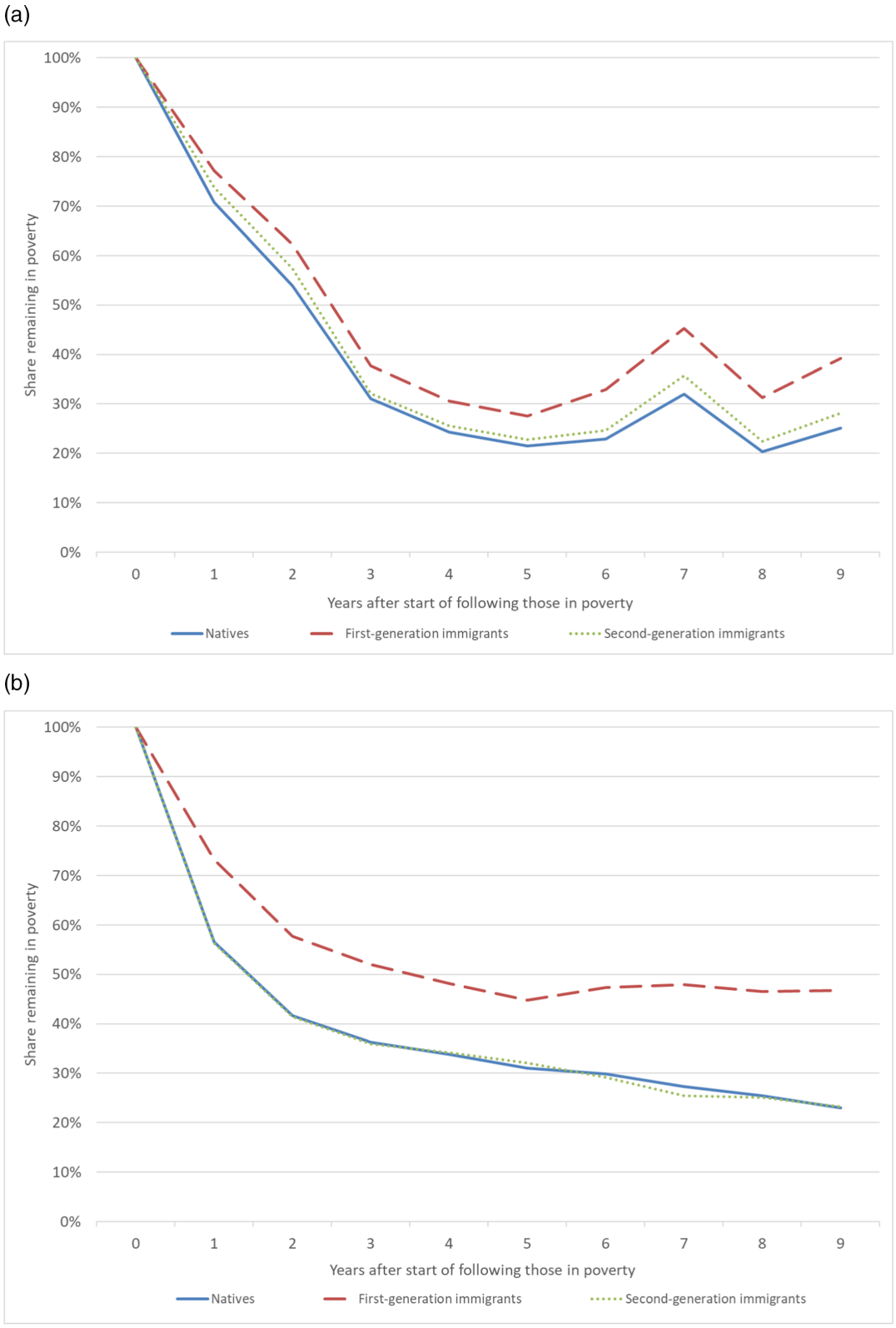

FIGURE 3 The persistence of old-age poverty in the Netherlands, when in poverty in 2012, by age and migrant status. (a) Subsample of individuals aged 50–64: by migrant status; (b) subsample of individuals aged 65 and older: by migrant status. Results are based on the budget-based poverty line, the disposable income concept, the measure of the persistence of poverty, and the micro data described in 'Methods and data' section. For each year, people residing in institutions, student households and households with incomplete annual incomes (typically due to death or migration during the year) are excluded from the numerator and denominator to prevent survivorship bias. *Source*: Authors' own calculations based on data from Statistics Netherlands.

accrued a lower pension and are therefore more likely to structurally end up in poverty, all else being equal. Compared to natives, old-age poverty is also more persistent among second-generation immigrants, but only slightly and only for those aged 50–64 (Figure 3a). Those above 65 were just as likely to be chronically poor as natives (Figure 3b). As before, this is presumably because second-generation immigrants were born in the Netherlands and therefore accrue state pension entitlements that are comparable to the native population.

Additional analyses indicated that our results on differences in the persistence of poverty according to migration status are robust to alternative specifications. Specifically, we obtain qualitatively similar results when we impose that poverty intervals have to be continuous, when we choose 2014 or 2016 as a base year (instead of 2012), or when we focus exclusively on people whose poverty spell had just begun in 2012.

Multiyear frequency by age and migrant status

Given that a substantial number of people live in poverty 1 year and come out of it the next, it is useful to extend our analysis to the multiyear frequency of poverty (Larrimore et al., 2022). The results in Table 1 document that 12% of all 50- to 64-year-old natives experienced poverty in one or more years during the period 2012–2021. Again, this percentage was much higher for first-generation immigrants (36%) and also slightly higher for second-generation immigrants (15%). Overall, these shares are substantially larger than the share in poverty in any given year (which averaged 6% for 50- to 64-year-olds over the period 2012–2021). Hence, viewed over a longer period of time, poverty affects considerably more people than just those who happen to fall below the threshold in individual years.

The results for people over 65, also reported in Table 1, mirror previous findings as well. While 6% of all natives in this age category faced poverty in 1 or more years during the period 2012–2021, this percentage was 21% for first-generation immigrants and 6% for second-generation immigrants. As before, a plausible explanation is that second-generation immigrants accrue state pension entitlements that are comparable to the native population, whereas first-generation immigrants do not. Overall, the multiyear frequency of poverty among people over 65 was lower than among 50- to 64-year-olds.

Finally, Table 1 also shows that the average time spent in old-age poverty during the period 2012–2021, if ever in poverty during this period, ranged from 2.4 to 3.3 years. Again, first-generation immigrants were more vulnerable than natives and second-generation immigrants.

CONCLUSION AND DISCUSSION

The fact that a considerable number of people in rich societies do not have the means to obtain the minimum necessities raises legitimate questions for policy. Older adults are especially vulnerable because of deteriorating health, rising costs of medical care and loss of labour income. In this article, we have used administrative panel data for almost the entire Dutch population over the period 2012–2021 to estimate the extent of old-age poverty in the Netherlands, and to compare it to poverty among younger cohorts. We have applied a poverty line that is based on a reference budget which indicates what people in Dutch society need as a minimum to provide for their livelihood. By comparing this budget-based poverty line to the income that older adults (those aged 50 years or older) can freely consume, we have determined whether they should be classified as poor or

TABLE 1 The frequency of old-age poverty in the Netherlands at any time between 2012 and 2021, by age and migrant status.

		Percentage of individuals who were poor at least once during the 10 years from 2012 to 2021	Average number of years in poverty during the period from 2012 to 2021 if ever in poverty during this period
Individuals aged 50 to 64	Natives	12	2.7
	First-generation immigrants	36	3.3
	Second-generation immigrants	15	2.8
Individuals aged 65 and older	Natives	6	2.4
	First-generation immigrants	21	3.3
	Second-generation immigrants	6	2.4

Note: Age cohorts are based on age at the end of 2011. The full sample includes all individuals for whom we have data for at least 1 year during the period 2012–2021. Results are based on the budget-based poverty line, the disposable income concept, the measures of the multiyear frequency of poverty, and the microdata described in 'Methods and data' section.

Source: Authors' own calculations based on data from Statistics Netherlands.

non-poor. We have subsequently aggregated this individual information into macro indicators that reflect the prevalence, intensity, persistence and multiyear frequency of old-age poverty.

Our results show that the prevalence of poverty among people over 50 years of age has been low compared to younger age groups. On average, 5.6% of the 50- to 64-year-olds and 2.3% of the over-65s, were poor over the period 2012–2021. The lower poverty rate among people above retirement age is consistent with the observation that a full state pension usually guarantees an income above the poverty line, whereas minimum income support for people of working age does not. We also find that the median income shortfall of poor people over 50 averaged 9% of the poverty threshold in 2021.

More generally, our analysis reveals important differences in poverty between different groups of older adults. In particular, we find that old-age poverty is more prevalent, more frequently occurring and more persistent among first-generation (foreign-born) immigrants than among natives. Second-generation immigrants (native-born individuals with at least one foreign-born parent) are also more vulnerable, but their disadvantage is much smaller and limited to people who have not yet reached retirement age. These findings point to both pre- and post-retirement disadvantages of older immigrants. However, they also show that the children of these immigrants fare better than their parents and, in fact, once they have reached retirement age, no longer suffer from any disadvantage compared to native citizens. This latter finding can be explained by the fact that second-generation immigrants were born in the Netherlands and therefore accrue state pension entitlements that are comparable to the native population. First-generation immigrants, on average, accrue lower state pensions and are therefore more likely to experience poverty after retirement.

Concerns about old-age poverty relate to future generations as well. These concerns are amplified by two demographic trends. The first is the recent increase in the number of immigrants, most of whom are foreign-born and will not be able to build up a full state pension because of the residence criterion. Due to the rising share of these first-generation immigrants in the Dutch population, the proportion of people who are expected to need minimum income support after reaching the retirement age has been increasing in recent years.

The second trend that adds to concerns is the process of population ageing, caused by declines in fertility and increases in longevity. In particular, the gradually increasing old-age to working-age ratio raises doubts about the sustainability of Dutch income support for older adults. Although the state pension age has been partially rising with life expectancy, the number of recipients is still projected to grow substantially. Since the state pension scheme is financed on a *pay-as-you-go* basis, the rising share of older adults places a growing financial burden on the working-age population. This raises doubts as to whether the current generosity of the scheme can be maintained in the future.

Our findings point to the complex trade-offs that policymakers face in their efforts to ensure a decent income for older adults. These require careful consideration of the interests of current and future generations of older people, people of working age, native-born and foreign-born citizens, and taxpayers in a more general sense. While our analysis speaks directly to the current debate on the reform of Dutch minimum income support, it is also relevant for other societies. Previous research has indicated, for example, that public pensions are the main component of old-age income support in many developed countries, not just in the Netherlands (Niimi & Horioka, 2023). The vulnerability of citizens with a migration background is not unique to the Netherlands either, but constitutes a social problem in many Western societies (Headey et al., 2023). The concerns about the sustainability of the state pension also extend to other countries. In fact, the gradually increasing old-age to working-age ratio in the Netherlands is comparable to the average of all OECD member states (OECD, 2023). Despite efforts to contain it, the cost of the state pension has gradually increased in most of these member states. Previous research on European state pension schemes has therefore concluded that they are not sustainable in their current form (Fouejieu et al., 2021). Based on these observations, the analysis presented in this paper seems relevant beyond the Dutch context. Hopefully, it can inform the broader debate on old-age poverty in advanced economies, and the role of public policy in preventing it.

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DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from Statistics Netherlands. Restrictions apply to the

availability of these data, which were used under license for this study. Data are available from the author(s) with the permission of Statistics Netherlands.

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REFERENCES

Adema, Y., Bettendorf, L., Deijl, C., Freeman, D., Verstegen, L., & Van der Wal, E. (2021). *Economische analyse steunpakket 2020*. CPB Netherlands Bureau for Economic Policy Analysis. https://www.cpb.nl/sites/default/files/omnidownload/CPB-Notitie-Economische-analyse-steunpakket-2020.pdf

Adema, Y., & Van Tilburg, I. (2019). *Zorgen om morgen*. CPB Netherlands Bureau for Economic Policy Analysis. https://www.cpb.nl/sites/default/files/omnidownload/CPB-Vergrijzingsstudie-2019-Zorgen-om-morgen.pdf

Alm, S., Nelson, K., & Nieuwenhuis, R. (2020). The diminishing power of one? Welfare state retrenchment and rising poverty of single-adult households in Sweden 1988–2011. *European Sociological Review*, *36*, 198–2017. https://doi.org/10.1093/esr/jcz053

Brady, D. (2019). Theories of the causes of poverty. *Annual Review of Sociology*, *45*(4), 4.1–4.21. https://doi.org/10.1146/annurev-soc-073018-022550

BZK and CBS. (2016). *WoON2015: release 1.0 – WoonOnderzoek Nederland 2015*. Ministry of the Interior and Kingdom Relations (BZK) and Statistics Netherlands (CBS). https://doi.org/10.17026/dans-xbt-qc5c

Caminada, K., Wang, J., Goudswaard, K., & Wang, C. (2019). *Relative income poverty rates and poverty alleviation via tax/benefit systems in 49 LIS-countries, 1967–2016*. LIS Cross-National Data Center.

Citro, C. F., & Michael, R. T. (Eds.). (1995). *Measuring poverty: A new approach*. National Academy Press. https://nap.nationalacademies.org/catalog/4759/measuring-poverty-a-new-approach

CPB (CPB Netherlands Bureau for Economic Policy Analysis). (2024). *Centraal economisch plan 2024*. https://www.cpb.nl/sites/default/files/omnidownload/CPB-Raming-Centraal-Economisch-Plan-CEP2024.pdf

Crenshaw, K. (1989). *Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics* (pp. 139–167). University of Chicago Legal Forum.

Darvas, Z. (2019). Why is it so hard to reach the EU's poverty target? *Social Indicators Research*, *141*, 1081–1105. https://doi.org/10.1007/s11205-018-1872-9

Datt, G., & Lanjouw, P. F. (2023). On the poverty line. In J. Silber (Ed.), *Research handbook on measuring poverty and deprivation*. Edward Elgar. https://doi.org/10.4337/9781800883451.00014

Dutch Federation of Pension Funds. (2024). *The Dutch pension system: Highlights and characteristics*. Dutch Federation of Pension Funds. https://www.pensioenfederatie.nl/website/the-dutch-pension-system-highlights-and-characteristics

Ebbinghaus, B. (2021). Inequalities and poverty risks in old age across Europe: The double-edged income effect of pension systems. *Social Policy & Administration*, *55*, 440–455. https://doi.org/10.1111/spol.12683

Eurostat. (2023). *Persistent at-risk-of-poverty rate* [ilc_li21]. https://ec.europa.eu/eurostat/databrowser/view/ilc_li21/default/table?lang=en

Förster, M. F., & Mira d'Ercole, M. (2012). The OECD approach to measuring income distribution and poverty. In D. J. Besharov & K. A. Couch (Eds.), *Counting the poor: New thinking about European poverty measures and lessons for the United States*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199860586.001.0001

Fouejieu, A., Kangur, A., Romero Martinez, S., & Soto, M. (2021). *Pension reforms in Europe: How far have we come and gone?* International Monetary Fund.

Goderis, B., Van Hulst, B., Wildeboer Schut, J. M., & Ras, M. (2018). *De SCP-methode voor het meten van armoede*. The Netherlands Institute for Social Research (SCP). https://www.scp.nl/publicaties/publicaties/2018/11/23/de-scp-methode-voor-het-meten-van-armoede

Goderis, B., & Vlekke, M. (2023). Tax and benefit policies to reduce poverty in The Netherlands: A microsimulation analysis. *International Journal of Microsimulation*, *16*(1), 108–133. https://microsimulation.pub/articles/00277#:~:text=Introducing%20a%20budget%2Dneutral%20universal,generate%20smaller%20reductions%20in%20poverty

Grusky, D. B., & Hill, J. (Eds.). (2018). *Inequality in the 21st century: A reader*. Westview Press.

Headey, B., Muffels, R., & Quiggin, J. (2023). *Western welfare capitalisms in good times and bad*. Edward Elgar. https://doi.org/10.4337/9781035312306

Hicks, J. (1946). *Value and capital: An inquiry into some fundamental principles of economic theory* (2nd ed.). Oxford University Press.

Hoff, S., Van Hulst, B., Wildeboer Schut, J. M., & Goderis, B. (2019). *Armoede in Kaart 2019*. The Netherlands Institute for Social Research (SCP). https://digitaal.scp.nl/armoedeinkaart2019/

House of Representatives of the Netherlands. (2024). *Miljoenennota 2025*. House of Representatives of the Netherlands. https://www.rijksoverheid.nl/onderwerpen/prinsjesdag/miljoenennota-en-andere-officiele-stukken

Human Resources and Social Development Canada. (2006). *Low income in Canada 2000–2002 using the market basket measure*. Human Resources and Social Development Canada.

Kwan, C., & Walsh, C. A. (2018). Old age poverty: A scoping review of the literature. *Cogent Social Sciences*, *4*, 1478479. https://doi.org/10.1080/23311886.2018.1478479

Larrimore, J., Mortenson, J., & Splinter, D. (2022). Presence and persistence of poverty in US tax data. In R. Chetty, J. N. Friedman, J. C. Gornick, B. Johnson, & A. Kennickell (Eds.), *Measuring distribution and mobility of income and wealth*. The University of Chicago Press. https://doi.org/10.7208/chicago/9780226816043.001.0001

Lössbroek, J., De Regt, S., Fokkema, T., & Das, M. (2024). De ongelijkheid van pensioeninkomens van migranten. *Demos*, *40*, 1–4. https://nidi.nl/demos/de-ongelijkheid-van-pensioeninkomens-van-migranten/#:~:text=De%20financi%C3%ABle%20situatie%20van%20gepensioneerde,%E2%82%AC1.100%20voor%20een%20alleenstaande

Maquet, I., & Stanton, D. (2012). Income indicators for the EU's social inclusion strategy. In D. J. Besharov & K. A. Couch

(Eds.), *Counting the poor: New thinking about European poverty measures and lessons for the United States*. Oxford University Press. https://doi.org/10.1093/acprof:oso/9780199860586.001.0001

Menyhért, B., Cseres-Gergely, Z., Kvedaras, V., Mina, B., Pericoli, F., & Zec, S. (2021). *Measuring and monitoring absolute poverty (ABSPO) – Final report*. JRC127444. Publications Office of the European Union. https://doi.org/10.2760/787821

Meyer, B. D., & Mittag, N. (2019). Using linked survey and administrative data to better measure income: Implications for poverty, program effectiveness, and holes in the safety net. *American Economic Journal: Applied Economics*, *11*, 176–204. https://doi.org/10.1257/app.20170478

Ministry of Finance. (2024). *Kom ik in aanmerking voor een toeslag?* Ministry of Finance. https://www.belastingdienst.nl/wps/wcm/connect/bldcontentnl/belastingdienst/prive/toeslagen/hoe_werken_toeslagen/kan_ik_toeslag_krijgen/

Nibud (Netherlands Institute for Family Finance Information). (2008). *Budgethandboek 2008: Kerncijfers huishoudfinanciën*. Nibud.

Nibud (Netherlands Institute for Family Finance Information). (2017). *Budgethandboek 2017: Kerncijfers huishoudfinanciën*. Nibud.

Niimi, Y., & Horioka, C. Y. (2023). Elderly poverty and its measurement. In J. Silber (Ed.), *Research handbook on measuring poverty and deprivation*. Edward Elgar. https://doi.org/10.4337/9781800883451.00014

Notten, G., Tuz Zohora, F., Plante, C., & Laforest, R. (2023). Two decades of poverty reduction politics in Canada: Better for single-parent families and single working-age adults? *Canadian Public Policy*, *49*, 347–361. https://doi.org/10.3138/cpp.2023-006

OECD. (2023). *Pensions at a glance 2023: OECD and G20 indicators*. OECD Publishing. https://doi.org/10.1787/678055dd-en

Penne, T., Cornelis, I., & Storms, B. (2020). All we need is ... reference budgets as an EU policy indicator to assess the adequacy of minimum income protection. *Social Indicators Research*, *147*, 991–1013. https://doi.org/10.1007/s11205-019-02181-1

Rijksoverheid. (2020). *Uitkeringsbedragen per 1 januari 2021*. Rijksoverheid. https://www.rijksoverheid.nl/documenten/publicaties/2020/12/18/uitkeringsbedragen-per-1-januari-2021

Rijksoverheid. (2021). *Uitkeringsbedragen per 1 juli 2021*. Rijksoverheid. https://www.rijksoverheid.nl/documenten/publicaties/2021/06/23/uitkeringsbedragen-per-1-juli-2021

Scholte, R., & Lammers, M. (2017). *Inkomenspositie ouderen*. SEO Amsterdam Economics. https://www.seo.nl/wp-content/uploads/2020/04/2017-09_Inkomenspositie_ouderen.pdf

Sen, A. (1985). *Commodities and capabilities*. Oxford University Press. https://global.oup.com/academic/product/commodities-and-capabilities-9780195650389?cc=nl&lang=en&#

Siermann, C., Van Teeffelen, P., & Urlings, L. (2004). *Equivalentiefactoren 1995–2000*. Statistics Netherlands.

Silber, J. (Ed.). (2023). *Research handbook on measuring poverty and deprivation*. Edward Elgar. https://doi.org/10.4337/9781800883451.00014

Smith, A. (1909[1776]). *An inquiry into the nature and causes of the wealth of nations*. Collier and Sons.

Soede, A. (2011). *Armoedegrens op basis van de budgetbenadering – Revisie 2010*. The Netherlands Institute for Social Research (SCP).

Statistics Netherlands (CBS). (2016). *Documentatierapport IPO 2014*. Statistics Netherlands. https://www.cbs.nl/-/media/cbs-op-maat/microdatabestanden/documents/2016/53/ipo-inkomenspanelonderzoek-2001ev-microdata.pdf?la=nl-nl

Statistics Netherlands (CBS). (2020). *Wat is mijn koopkracht?* Statistics Netherlands. https://www.cbs.nl/nl-nl/achtergrond/2008/50/wat-is-mijn-besteedbaar-inkomen-#:~:text=Een%20alleenstaande%20met%20een%20besteedbaar,beide%20huishoudens%2010%20duizend%20euro

Statistics Netherlands (CBS). (2022). *Nieuwe indeling bevolking naar herkomst: Vervanging van indeling naar migratieachtergrond en Westers/Niet-Westers*. Statistics Netherlands. https://www.cbs.nl/nl-nl/longread/statistische-trends/2022/nieuwe-indeling-bevolking-naar-herkomst/4-de-nieuwe-indeling-naar-geboren-in-nederland-en-herkomstland#:~:text=Bovenstaande%20leidt%20tot%20de%20volgende%20indeling%20van%20Geboren%20in%20Nederland%3A

Statistics Netherlands (CBS). (2023a). *Forecast: Nearly 18 million inhabitants, 19 million projected in 2037*. https://www.cbs.nl/en-gb/news/2023/50/forecast-nearly-18-million-inhabitants-19-million-projected-in-2037

Statistics Netherlands (CBS). (2023b). *Armoede en sociale uitsluiting 2023*. Statistics Netherlands. https://longreads.cbs.nl/armoede-en-sociale-uitsluiting-2023/risico-op-armoede-bij-huishoudens/

Statistics Netherlands (CBS). (2023c). *CBS statline*. https://opendata.cbs.nl/#/CBS/nl/dataset/84093NED/table?dl=8F5E3

Statistics Netherlands (CBS). (2023d). *CBS statline*. https://opendata.cbs.nl/#/CBS/nl/dataset/83131NED/table

Statistics Netherlands (CBS). (2023e). *Onderzoeksreeks met nieuwe waarneming energieprijzen voor de consumentenprijsindex*. https://www.cbs.nl/nl-nl/maatwerk/2023/26/onderzoeksreeks-met-nieuwe-waarnemingenergieprijzen-voor-de-consumentenprijsindex

Statistics Netherlands (CBS). (2024a). *CBS statline*. https://opendata.cbs.nl/#/CBS/nl/dataset/83474NED/table?ts=1711199670859

Statistics Netherlands (CBS). (2024b). *CBS statline*. https://opendata.cbs.nl/statline/#/CBS/nl/dataset/84494NED/table?dl=B0EBB

Statistics Netherlands (CBS). (2024c). *Integraal inkomens- en vermogensonderzoek (IIV)*. https://www.cbs.nl/nl-nl/onze-diensten/methoden/onderzoeksomschrijvingen/aanvullende-onderzoeksomschrijvingen/integraal-inkomens-en-vermogensonderzoek--iiv--

Statistics Netherlands (CBS). (2024d). *Documentatie inkomen van huishoudens (INHATAB)*. https://www.cbs.nl/nl-nl/onze-diensten/maatwerk-en-microdata/microdata-zelf-onderzoek-doen/microdatabestanden/inhatab-inkomen-van-huishoudens

Statistics Netherlands (CBS). (2024e). CBS statline [Dataset]. https://opendata.cbs.nl/statline/#/CBS/nl/dataset/37620/table?dl=B0E87

Statistics Netherlands (CBS). (2024f). *30,6 Duizend dakloze mensen in Nederland*. https://www.cbs.nl/nl-nl/nieuws/2024/13/30-6-duizend-dakloze-mensen-in-nederland

Statistics Netherlands (CBS). (2024g). *CBS statline*. https://opendata.cbs.nl/#/CBS/nl/dataset/03759ned/table?dl=39E0B

SVB. (2023). *Een miljoen extra AOW-gerechtigden in 2040*. Sociale Verzekeringsbank. https://www.svb.nl/nl/pers-en-nieuws/nieuwsberichten/een-miljoen-extra-AOW-gerechtigden-in-2040

SVB. (2024a). *Vorige AOW-bedragen*. Sociale Verzekeringsbank. https://www.svb.nl/nl/aow/bedragen-aow/oude-aow-bedragen

SVB. (2024b). *Wanneer bent u verzekerd voor de AOW?* Sociale Verzekeringsbank. https://www.svb.nl/nl/aow/wat-is-aow/verzekerd-zijn-voor-de-aow

Van den Brakel, M., Gidding, K., Lok, R., Otten, F., Vandewal, E., Bos, J., Warnaar, M., Wieman, G., Goderis, B., & Muns, S. (2024). *De nieuwe methode om armoede in Nederland te meten*. Statistics Netherlands (CBS), National Institute for Family Finance Information (Nibud) and Netherlands Institute for Social Research (SCP). https://www.cbs.nl/nl-nl/publicatie/2024/42/de-nieuwe-methode-om-armoede-in-nederland-te-meten

Vrooman, J. C. (2009). *Rules of relief: Institutions of social security, and their impact*. The Netherlands institute for Social Research (SCP).

Vrooman, J. C. (2016). *Taking part in uncertainty: The significance of labour market and income protection reforms for social segmentation and citizens' discontent*. The Netherlands Institute for Social Research (SCP) and Utrecht University.

Vrooman, J. C., Goderis, B., Hoff, S., & Van Hulst, B. (2020). Measuring poverty in The Netherlands: The generalised reference budget approach. In C. Deeming (Ed.), *Minimum income standards and reference budgets: International and comparative policy perspectives*. Policy Press. https://doi.org/10.1332/policypress/9781447352952.001.0001

Vrooman, J. C., & Wildeboer Schut, J. M. (2013). Het karige bestaan: een kwart eeuw armoede in Nederland. *TPEdigitaal*, *7*(1), 27–50. https://www.tpedigitaal.nl/artikel/het-karige-bestaan-een-kwart-eeuw-armoede-nederland

World Bank. (2005). *Introduction to poverty analysis*. The World Bank.

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