An Roinn Coimirce Sóisialaí
Department of Social Protection

Technical Paper on the Poverty Indicators for Social Inclusion in Ireland

An Evaluation of the Poverty Indicators Identified in the Roadmap for Social Inclusion 2020–2025

June 2023

Social Inclusion

Technical Paper No. 11

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Published by

Department of Social Protection

Arás Mhic Dhiarmada

Store Street

Dublin 1, Ireland

ISBN: 978-1-908109-64-4

1st June 2023

An Roinn Coimirce Sóisialaí
Department of Social Protection

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Any part of this technical paper may be quoted using the following reference: Sprong, S and Maître, B (2023) *Technical Paper on the Poverty Indicators for Social Inclusion in Ireland*, Social Inclusion Technical Paper No. 11, Dublin: Department of Social Protection.

This technical paper is an output of the research programme for the Department of Social Protection. Technical papers provide information about aspects of income poverty measurement for policymakers and academics. The authors are solely responsible for the views, opinions, findings, conclusions and/or recommendations expressed, which are not attributable to the Department of Social Protection. Technical papers are peer reviewed.

Abstract

In this technical paper, we provide a review of the poverty and social inclusion indicators that are used by the Irish Government for poverty reduction and social inclusion targets. We give a brief overview of Ireland's progress on the social inclusion goals and targets set in the Roadmap for Social Inclusion 2020–2025. Additionally, we discuss the advantages and limitations of the chosen indicators and, where relevant, propose additional or alternative indicators. Finally, we investigate the relationship between the old (EU2020) and new (EU2030) at risk of poverty or social exclusion (AROPE) and the Irish measure of consistent poverty.

Keywords: review of poverty indicators; social inclusion; Roadmap for Social Inclusion 2020–2025.

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List of Acronyms and Abbreviations

AROP	At Risk of Poverty
AROPE	At Risk of Poverty or Exclusion
CSO	Central Statistics Office
DEIS	Delivering Equality of Opportunity in Schools
EQLS	European Quality of Life Survey
ESRI	Economic and Social Research Institute
ESS	European Social Survey
EU	European Union
EU2020	European Union strategy for the decade up to 2020
EU2030	European Union targets for the decade up to 2030
EU-SILC	European Union Statistics on Income and Living Conditions
HAP	Housing Assistance Payment
OECD	Organisation for Economic Co-operation and Development
RAS	Rental Accommodation Scheme
SEVDEP	Severe Material Deprivation
SILC	Survey on Income and Living Conditions
VLWI	Very Low Work Intensity

Authors' Acknowledgements

The report could not have been completed without access to the data provided by the CSO. We are grateful for its assistance.

The authors would like to thank the anonymous external reviewer and two internal ESRI reviewers for their feedback, which enhanced the final report. We are also grateful to Roshin Sen, Clare Tormey and Janice Verschoyle of the Department of Social Protection for comments on earlier drafts and outlines of this report. Furthermore, the authors are appreciative of the input from Sheelah Connolly and Brendan Walsh with regard to the health indicators, and are grateful to Selina McCoy and Eamonn Carroll for their feedback regarding DEIS retention rates, and to Eva O'Regan and Gerard Reilly for information regarding the changes to the SILC methodology. Finally, we would like to thank Helen Russell for her helpful input throughout the process.

Chapter 1: Introduction

1.1 Purpose of the paper

The Roadmap for Social Inclusion 2020–2025, approved by the Irish Government and published in January 2020, laid out a detailed strategy to tackle poverty and promote social inclusion. This strategy included a variety of goals and targets across a wide range of domains related to employment, education, housing, health and income distribution. In order to monitor Ireland's progress on the targets and goals of the Roadmap, a number of specific indicators were identified based on several national and European measures relating to poverty or social inclusion.

The purpose of this paper is to give an overview of Ireland's current progress on the social inclusion goals and targets, set against a backdrop of the COVID-19 pandemic, the impact of Brexit and the start of the cost-of-living crisis, and to provide a review of the poverty and social inclusion indicators. Good indicators not only must be able to capture the phenomenon at hand and provide an indication of its scale; it is also important that they identify vulnerable groups and that they are measured at regular intervals to allow for progress to be tracked over time so that they can inform policymakers as to how much progress is being made. In addition to presenting the current numbers, we therefore discuss the advantages and limitations of each of the indicators, and, where relevant, propose additional or alternative indicators. Furthermore, with an eye on the methodological modification of the at-risk-of-poverty-and-social-exclusion (AROPE) indicator in 2021, we investigate the relationship between the old (EU2020) and new (EU2030) AROPE indicators and the Irish measure of consistent poverty.

In short, the following three questions will guide this paper.

1. How is Ireland doing in relation to the 22 target levels proposed in the Roadmap for Social Inclusion 2020–2025?
2. What are the advantages and limitations of the 22 measures proposed in the Roadmap, and are any changes to the indicators recommended?

3. What is the overlap between the new and old AROPE measures and the Irish measure of consistent poverty?

1.2 The ambitions outlined in the Roadmap for Social Inclusion 2020–2025

In early 2020, the Government published the Roadmap for Social Inclusion 2020–2025. This provided an overarching structure for Ireland's strategy to tackle poverty and social inclusion over the period up to 2025. The overall ambition outlined in the Roadmap was to reduce the national consistent poverty rate to 2% or less (from 5.6% in 2018) and to make Ireland one of the most socially inclusive states in the European Union (EU).

The Roadmap built on the Government's long-held commitment to reduce poverty and increase social inclusion, which is grounded in the long-standing definition of poverty and social inclusion:

> *People are living in poverty if their income and resources (material, cultural and social) are so inadequate as to preclude them having a standard of living which is regarded as acceptable by Irish society generally. As a result of inadequate income and resources, people may be excluded and marginalised from participating in activities which are considered the norm for other people in society.* (National Anti-Poverty Strategy, 1997)

However, the Roadmap explicitly moved to an approach that is focused on the broader achievement of social inclusion, which was defined as follows:

> *Social Inclusion is achieved when people have access to sufficient income, resources and services to enable them to play an active part in their communities and participate in activities that are considered the norm for people in society generally.* (Roadmap for Social Inclusion 2020–2025)

The set level of ambition for 2025 was accompanied by seven high-level goals, 22 specific targets and 66 commitments. The specific targets were set against a set of metrics to track progress. These goals, targets and commitments were developed after an extensive consultation process and were informed by European and international policy. Many of the targets, for example, bear resemblance to the

measures specified in the *European Pillar of Social Rights* and the *Europe 2020 Strategy* (EC, 2021).[1] Others were directly taken from the *Living Conditions in Europe* 2018 report published by the EU statistical agency Eurostat.

In this report, we discuss all the indicators listed in Tables 1A and 1B of the Roadmap. While it is important to assess all measures that are used to monitor progress, not all indicators are of equal importance and some bear more weight than others. The measure of consistent poverty is, for example, used for the overarching ambition of the Roadmap, while other indicators, such as self-reported health, are more instrumental and related to narrower and more specific targets.

For most of the targets, the Roadmap relies on statistics published by Eurostat based on microdata from the EU Statistics on Income and Living Conditions (EU-SILC), which provides timely and comparable data on income, poverty, social exclusion and living conditions. The Survey on Income and Living Conditions (SILC) is the Irish component of EU-SILC, collected by the CSO, and provides information on the income and living conditions of different types of households in Ireland. The data sources are well suited for tracking progress on the commitments of the Roadmap on account of both their annual nature and the inclusion of high-quality and established measures.

However, following new EU regulation (2019/1700), in 2020, the CSO introduced methodological changes to many SILC business processes, including changes in the data collection period, the income reference period, the standardisation of some variables and the household and income definitions.[2]These changes resulted in a break in the SILC time series from 2020 onwards, meaning that SILC data from 2020 onwards cannot be directly compared to the data that were collected prior to 2020. It is, however, difficult to gauge the exact effect of the changes to the SILC on the

[1] The Europe 2020 Strategy was adopted by the EU in 2010 (European Council, 2010). The strategy aims to bring the EU into a 'smart, sustainable and inclusive economy'. It included a headline target to lift at least 20 million people out of the risk of poverty or social exclusion by 2020 from a 2008 baseline. The successor to Europe 2020 is the European Pillar of Social Rights Action Plan. This sets a target to reduce the number of people at risk of poverty or social exclusion across the EU by at least 15 million by 2030.

[2] For more information on the break in time series see https://www.cso.ie/en/releasesandpublications/in/silc/informationnote-breakintimeseriessilc2020/

measurement of the indicators, especially because those changes coincided with the start of the COVID-19 pandemic, which had a big impact on the Irish economy and on people's lives and livelihoods and caused a suspension of survey fieldwork activities.[3] However, an exploration by the CSO of the potential impact of the methodological changes of the income reference period and the income definition revealed that differences between the poverty rate based on the old and the new definitions were minimal.[4]

1.3 The poverty literature: a short overview

Poverty is usually seen as consisting of two core elements: a lack of resources and a general inability to participate in society to a normal standard (Maître et al., 2006; Nolan & Whelan, 2010; Townsend, 1979; Whelan, 2007). A significant part of the body of research relating to poverty and social exclusion is focused solely on income thresholds to measure poverty (Bradshaw & Chen, 1996; Förster & Pearson, 2002; Kus et al., 2016). However, due to a growing realisation that income-based poverty measures have significant limitations, research has increasingly combined these monetary measures with non-monetary measures, which capture low socio-economic status and deprivation (Maître et al., 2006; Nolan & Whelan, 2007; Saunders & Naidoo, 2009; Tomlinson & Walker, 2009) or even extend to more general well-being (Sen, 1993, 2011).

In the section below, we first briefly discuss the classic monetary approach to measuring poverty. We then elaborate on the Irish and European measurements of poverty, which include non-monetary indicators in addition to monetary indicators, and finally touch upon the use of other indicators that go beyond low socio-economic status and deprivation.

[3] Some background notes on data collection during the COVID-19 pandemic can be found here: https://www.cso.ie/en/releasesandpublications/ep/p-silc/surveyonincomeandlivingconditionssilc2021/backgroundnotes/

[4] Official estimates of the key national poverty indicators can be found here: https://www.cso.ie/en/statistics/socialconditions/surveyonincomeandlivingconditionssilc/. Additionally, as part of its Frontier series, the CSO has released a piece in which it facilitated a comparison across the year 2018-2020 based on the new reference period and definitions: https://www.cso.ie/en/releasesandpublications/fp/fp-pi/povertyinsights-incomereferenceperiods2018to2020/

1.3.1 Monetary indicators in Ireland and the EU

Much of the research on poverty in the Global North has used household income to capture living standards and identify those in poverty. This is also true of official poverty measurement and monitoring for policy purposes (Watson et al., 2017). A definition that underlies these approaches to measuring poverty is that of Townsend, which highlights the lack of (material) resources (1979, p. 31):

> *Individuals, families and groups in the population can be said to be in poverty when they lack the resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or are at least widely encouraged or approved, in the societies to which they belong. Their resources are so seriously below those commanded by the average individual or family that they are, in effect, excluded from ordinary living patterns, customs and activities.*

In line with Townsend's definition, a common approach to measuring poverty is to rely on the relative income poverty or the at risk of poverty (AROP) indicator. This measure of poverty, used by the European Commission and the Irish government, identifies a poverty line based on people's disposable income and is calculated using an income threshold related to the mean or median income. In the past, different thresholds of the equivalised median household income have been used, ranging between 40% and 70% (Bradshaw, 2001; Saunders & Naidoo, 2009; Whelan, 2007). However, these days the most common threshold is 60% of the median equivalised household income.

1.3.2 Non-monetary indicators

Since the 1980s, a growing awareness of the limitations of an income-focused approach to poverty and social inclusion has fuelled a fundamental shift towards a multidimensional approach. Starting with Ringen (1988), many have criticised the sole reliance on income because it fails to identify those who are unable to participate in their societies due to lack of resources. Among the well-known limitations of income-based measures are the failures to capture the different needs, standards of living and patterns of consumption and to take account of non-cash benefits and accumulated debt (Watson et al., 2017; Whelan et al., 2019). Besides,

income-based measures are known to poorly capture the economic fluctuations in periods of boom or bust.

Following the early critiques of the reliance on income to capture poverty, deprivation indicators were introduced to the Irish measure of poverty in the late 1980s and have since been included in the Irish understanding of poverty. Grounded in a theoretical understanding of the multidimensional nature of poverty (Nolan & Whelan, 2007; Whelan et al., 2019), the current Irish consistent poverty approach is based on the dual condition of (a) being below the 60% median income threshold and (b) lacking two or more basic necessities (see Maître & Privalko, 2021 for a recent review of the deprivation items).

Rooted in the same belief that a focus on income alone misses an important part of the picture, non-monetary indicators have also been adopted in European measures of poverty. However, the European approach is different from the Irish approach. As part of the Europe 2020 strategy, the European Commission adopted a poverty target that was based on being 'at risk of poverty or exclusion' (AROPE). This official EU poverty measure combines three aspects of poverty and exclusion related to income poverty, material deprivation and labour market situation. It identifies people as AROPE if they are:

- below a country-specific 60% income poverty threshold, or
- above a three-item material deprivation threshold, or
- in a VLWI household.

However, some studies have criticised the EU AROPE measure because countries' rates of poverty differ widely depending on which of the component measures are included (Copeland & Daly, 2012, p. 274; Maître et al., 2013). In addition, researchers have pointed out the major implications of combining the indicators using a 'union' approach whereby people are counted as being AROPE if they meet any of the criteria, as well as the lack of a clear rationale for it (Nolan & Whelan, 2011). Therefore, Maître et al. (2013) argue for an intersection approach, like that used in the Irish consistent poverty measure, whereby people are identified if they

are both below the income threshold and materially deprived. However, an intersection approach whereby people would be seen as AROPE if they met all three criteria may not be fruitful and may result in an extremely low rate of multiple deprivation (Nolan & Whelan, 2011).

Finally, in some cases, the measurement of poverty and social inclusion has been extended to include non-material resources. According to scholars such as Sen (1993), poverty should be understood in terms of the functioning and capabilities that people have rather than only through the material resources available to them. Following such understandings of poverty and social exclusion, it is also important to consider people's personal resources linked to quality of social relationships and deriving from social, economic and political settings (Whelan et al., 2019). This understanding of poverty is linked to the concept of social capital (Coleman, 1988; Putnam, 2000), which refers to the idea that social relationships and structures provide valuable resources. Accordingly, some studies have, for example, looked at people's social participation and integration.

1.4 Relevant groups

The literature on poverty and social inclusion has identified certain groups as being particularly at risk (Chzhen & Bradshaw, 2012; Watson et al., 2018). In earlier work, Watson et al. (2016) argued that in addition to social class inequalities, social risk was an important principle of differentiation and defined social risk groups as differing in their risk of poverty due to personal or family factors that restrict their capacity to meet their needs through the market. In particular, they listed three drivers of social risk, as follows.

1. Life-course stage: children and people older than 'working age' are vulnerable to social exclusion due to reduced or no access to employment
2. Personal resources: illness or disability may limit a person's capacity to work as well as involving additional costs associated with treatment, medication or disability-specific devices and aids (Cullinan et al., 2011). Disability may also be penalised in the labour market through

discrimination or unaccommodating facilities and limited personal assistance services (Banks et al., 2018; Carroll & McCoy, 2022)

3. Non-work caring responsibilities: responsibility for childcare or others who have an illness or disability is likely to reduce the person's capacity to engage in paid work.

In line with these three drivers and in keeping with the groups highlighted in the Roadmap, the following social risk groups are identified and used in the current report:

- children
- people with disabilities
- lone parents with dependent children
- older people.[5]

1.5 Outline of the paper

The remainder of the paper is organised as follows. In Chapter 2, we present the current rates for the monetary EU indicators and evaluate their usefulness. We repeat this for the non-monetary EU indicators in Chapter 3, and for the Irish indicators in Chapter 4. In Chapter 5, we compare the overlap between the different AROP measures. Finally, in Chapter 6 we discuss the main observations and conclusions.

[5] While since 2009 people aged 65 and over have had the lowest at risk-of-poverty rates of all age groups, they experienced the highest AROP rates in the late 1990s. Such fluctuations are highly dependent on the rate of the state pension, making older people potentially vulnerable to changes in economic circumstance.

Chapter 2: Monetary EU Indicators

2.1 Introduction

The Roadmap set a number of targets against several specific metrics that were identified as being able to capture progress across a number of key aspects related to poverty and social exclusion. In this chapter, we present the current rates and evaluate the monetary EU indicators, which were focused on the following three aims:

1. becoming one of the best five countries regarding the risk of poverty or social exclusion
2. becoming one of the best five countries regarding the income distribution
3. becoming one of the best five countries or improving Ireland's ranking within the top five countries in relation to income poverty.

While the three aims were set in terms of Ireland's ranking within the EU (i.e. becoming a top-five country), the specific targets linked to the individual indicators relate to absolute numbers. Hence, in this chapter we focus on absolute levels and do not consider Ireland's performance relative to other EU countries. However, it is worth noting that an upcoming ESRI report will specifically focus on how Ireland currently compares to other EU countries.

2.2 Risk of poverty or social exclusion

The aim of becoming one of the best five countries in terms of the risk of poverty or social exclusion was connected to the official EU poverty measure, the AROPE, which combines three aspects of poverty and exclusion related to income poverty, material deprivation and household labour market situation. In the Roadmap, the Irish government set a target of reducing the AROPE from 21.1% in 2018 to approximately 16.7% in 2025. In 2021, the AROPE stood at 20%, indicating a 1.1 percentage point decrease compared to three years before. Accordingly, a further

decrease of 3.3 percentage points for the period up to 2025 is needed to reach the 2025 target.[6]

Because the AROPE indicator is the official EU poverty measure, it is available for all EU states, and often used for making country comparisons. The AROPE identifies the percentage of the population that are at risk of poverty **or** severely materially deprived **or** living in a very-low-work-intensity (VLWI) household. In the paragraphs below, we briefly describe each of these three components, discuss some of their strengths and weaknesses, and mention how they may differ from related Irish measures. The AROPE measure, used for the EU-level targets for 2020, is based on slightly different material deprivation and VLWI measures than the AROPE measure used for the EU-level targets that have to be achieved by 2030. Therefore, we also touch on how these changes might impact the indicator.

The first component of the AROPE is the AROP indicator, which identifies the share of the population living in a household with an equivalised disposable income that is below 60% of the national median equivalised disposable income (after tax and social transfers).[7] This is a common approach to measuring income poverty. However, while the AROP indicator identifies groups consistent with the general understanding of poverty, the level of cross-national variation is relatively modest, and the association between the poverty indicator and average national levels of prosperity is relatively weak (Nolan & Whelan, 2011).

Additionally, the Eurostat AROP measure, on which the AROPE relies, is different to the CSO measure because the indicators are based on different equivalence scales as well as a slightly different measure of household disposable income.[8] Equivalence scales are used to take account of differences in the household size and composition in order to facilitate income comparisons between households. The equivalised disposable income is then the household income divided by the equivalent household size. However, the equivalent household size can vary because

[6] Since the publication of the Roadmap for Social Inclusion Second Progress Report by the Department of Social Protection (2022), Eurostat has updated some of the figures cited in that report.
[7] See Section 2.4 for a full description of the AROP measure, before and after social transfers.
[8] See the Eurostat website for further details (https://ec.europa.eu/eurostat/web/income-and-living-conditions/overview).

equivalence scales differ in terms of the weights that they give to household members.[9] Eurostat uses the Organisation for Economic Co-operation and Development (OECD) modified equivalence scale, which assigns a weight of 1 to the first adult in a household, a weight of 0.5 to each additional adult, and a weight of 0.3 to children younger than 14 years. The CSO, on the other hand, uses a national scale with the respective weights assigned to household members being 1, 0.66 and 0.33. The choice of equivalence scale is important because it can have a significant impact on the analysis of poverty (and inequality), particularly for certain groups (Regan & Kakoulidou, 2022).

The second component of the AROPE is a measure of deprivation, which captures a household's inability to afford a set of basic goods and services that are considered common across the overall population. It is worth noting that the measure of deprivation is not only a component of the AROPE measure but also a Roadmap target on its own (see below for the 2025 deprivation target). According to the EU2020 strategy, people are considered materially deprived if they experience an enforced lack of more than three out of nine items that are considered essential for social inclusion and participation in society (see glossary for details). The current severe material deprivation target in the Roadmap is based on the measure from the EU2020 strategy. The severe deprivation target is to decrease the rate from 5.2% in 2018 (the 2017 rate was used at the time of the Roadmap publication) to 3.1% in 2025. Since 2017/2018, good progress has been achieved as in 2020 the severe deprivation rate was 4.1%, representing a decrease of 1.1 percentage points.[10]

However, the list of deprivation items and the deprivation threshold are not the same for the EU2020 and the EU2030 strategies, nor for the Irish approach.[11] Following the work of Guio et al. (2016), the European Commission adopted a revised measure of material and social deprivation in 2017 and implemented it in the

[9] They are based on the assumption that all individuals within the same household share the same standard of living derived from the household income and that there are economies of scale associated with the size of the household.
[10] Eurostat microdata for 2021 to calculate the AROPE from the EU2020 strategy were not available at the time of publication, as it is likely that Eurostat will publish only the AROPE from the EU2030 from 2021 onwards.
[11] For convenience, we use the term 'EU2030 strategy' or 'EU2030' when referring to the European Pillar of Social Rights Action Plan and the corresponding AROPE headline poverty measure.

EU2030 from 2021 onwards. The revised measure is based on 13 items related to deprivation at both the household and the individual level (see glossary). The EU2030 strategy deprivation measure identifies people as severely materially deprived if they live in a household that is lacking at least 7 of the 13 items. Besides, to be considered severely materially and socially deprived, children under the age of 16 also need to be lacking at least 3 household items among the 7 items.[12]

The third component of the AROPE is the VLWI measure, which aims to capture people living in jobless households and refers to the proportion of available time that working-age adults in the household spend in employment. In the EU2020 strategy, working-age adults were defined as those aged 18 to 59, excluding students aged 18 to 24, and people were considered to be living in a VLWI household if the overall work intensity was less than 0.2 or 20% of the available time. In the EU2030 strategy, the VLWI measure was adjusted. The VLWI threshold of 0.2 or 20% remained unchanged,[13] but the definition of the working-age population was extended to include people up to the age of 64, excluding inactive people aged 60 to 64 living in a household where pensions form the main source of income.

Even though the VLWI measure is one of the three components of the AROPE, it has several noteworthy limitations and its inclusion in the AROPE has been called into question by various researchers over the years (e.g. Nolan & Whelan, 2011; Watson et al., 2012). Among the most important issues raised are the following.

- VLWI is a contributing factor to poverty but not an outcome in itself, and the inclusion of a contributing factor to poverty in a poverty measure is likely to limit our understanding of the causal process leading to poverty
- The rationale for including people living in VLWI households in the AROPE target population is unclear and there is no strong argument for the choice of

[12] The Irish approach, on the other hand, uses a list of 11 items and considers people materially deprived if they cannot afford two or more of them (see glossary). It is important to keep these differences in mind, especially when comparing the European measures to national measures of poverty and social inclusion.
[13] See Eurostat website for more details about the AROPE 2020 and AROPE 2030 measures (https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:At_risk_of_poverty_or_social_exclusion_(AROPE)).

a VLWI indicator over other indicators, such as level of education or disability status

- VLWI is not universal because it only includes people from 0 to 64 years (0 to 59 within the EU2020), and thus by definition it misses part of the population
- While one would typically expect an unambiguous relationship between social class and poverty (Whelan et al., 2008), the inclusion of the VLWI criterion in the AROPE dilutes the overall pattern of class variation (Nolan & Whelan, 2011).

2.3 Income distribution

The Roadmap also outlined the aim of becoming one of the five most equal countries in terms of income distribution. This aim was connected to a measure known as the income quintile share ratio (the S80/S20), which is calculated as the ratio between the top and bottom income quintiles. In 2018, the ratio was 4.2:1 for Ireland, meaning that, on average, the income received by the top 20% of the income distribution was 4.2 times as high as the income received by the bottom 20%. In 2021, the S80/S20 ratio had come down to 3.8:1, reaching the absolute 2025 target (of 3.8:1). This reduction indicates that there was a more equal distribution of income between the upper- and lower-income groups.

The S80/20 indicator is part of a range of measures aimed at measuring the level of income inequality in a country. Related and commonly used indicators are the Gini coefficient, decile ratios such as the p90/p10 or the p50/p10, and the Theil index. By design, each of these indicators has different properties and measures the dispersion in the income distribution differently (Jenkins, 2022). For example, the p50/p10 focuses only on the 50th and 10th percentiles of the income distribution, while the Gini coefficient covers the entire income distribution and is more sensitive to the middle of it (Jenkins, 2022; Trapeznikova, 2019).

The S80/S20 is a common and meaningful measure and is readily available from the EU-SILC, which makes it suitable for comparisons across EU countries. However, like the other income inequality measures, it has limitations. Most notably, it has been reported to be rather sensitive to outliers at the top and bottom of the income

distribution. Using 2004 EU-SILC data from 14 countries, Van Kerm (2007) found that removing the top and bottom 1% of the income distribution reduced income inequality by 10–15%, although it did not affect the ranking between countries. Another limitation of the S80/S20 and other percentile share ratio measures is that they ignore what happens to the income distribution between the percentiles considered. It is therefore worth considering adding another measure of income inequality to the indicators of the Roadmap, particularly one that does reflect the income distribution as a whole.

As mentioned above, another common and easily available measure of income inequality is the Gini coefficient, which was, for example, also used in the *Living Conditions in Europe* report from 2018. From a policy perspective, one of the interests of the Gini is the possibility to look at the effect of social transfers (or any other household income component) on reducing income inequality by comparing the Gini coefficients before and after social transfers. These are available from Eurostat and are also used extensively in the literature on income inequality (Roantree et al., 2021) and can even be adapted to reflect income inequality after taking account of other factors, such as housing costs (Roantree et al., 2022).

2.4 Income poverty

The Roadmap included the aim of becoming a top-five country or improving Ireland's ranking within the top five countries in relation to income poverty. This aim was connected to five specific indicators, based on household income, that measure the proportion of people living in income poverty. We will discuss the progress made on each of these five indicators and some of their main advantages and limitations below.

The first two of these indicators are the share of people who are at risk of poverty before and after social transfers.[14] These indicators identify the proportion of people living in a household with an equivalised income (before and after social transfers) of

[14] Social transfers cover a range of individual and household benefits, such as unemployment, old-age and survivors', sickness and disability benefits as well as education-related, family- and children-related and housing allowances.

less than the 60% national median equivalised disposable income. The Roadmap set targets to reduce these shares. In 2018, 41% of the population were at risk of poverty before social transfers and in 2021 this number had increased to 43%, while the 2025 target is to reduce it to 37.9%. The share of people at risk of poverty after social transfers stood at 14.9% in 2018 and decreased to 12.9% in 2021, almost reaching the absolute 2025 target of 12.8%.

Reporting the share of people at risk of poverty both before and after social transfers is meaningful, especially when these indicators are considered together, because it gives an indication of what the level of poverty would be without any social protection and how well social protection measures are working. The strength and the effectiveness of the social protection system for lifting people out of poverty can be estimated by subtracting those at risk of poverty after social transfers from those at risk of poverty before social transfers and dividing the result by the latter value. For example, in 2021, the AROP rate after social transfers was 70% lower ((43.3 − 12.9)/43.3 = 0.70) than it was before social transfers, while this was 64% ((41 – 14.9)/41 = 0.64) in 2018. This suggests that, despite the challenges posed by the pandemic, which increased the AROP rate before social transfers, the social protection system was more effective in 2021 than in 2018.

Thus, particularly when considered together, the AROP rates before and after social transfers can be instrumental in assessing the effectiveness of the welfare system. However, one of the limitations is that these measures focus on the role of social transfers, and thus do not consider the roles of taxation and service provision, which contribute to reducing poverty (Watson & Maître, 2013). It is therefore important to keep in mind that these measures only consider a particular, albeit important, element of the welfare system and that other factors can also contribute to social protection, such as the provision of the medical card.

Countries can experience large economic fluctuations of economic growth and recession, which can make it difficult to interpret the AROP measure if the income of all households increases or falls. This is why it can be very useful to use an ‘absolute’ measure of poverty where the poverty threshold is fixed at a specific period in time with household income being adjusted for inflation. The at risk of

poverty anchored in time captures the absolute variation in living standards while the at risk of poverty captures the relative standard.

The Roadmap includes a poverty target reduction for 2025 based on the at risk of poverty anchored in 2017. This measure is no longer available from Eurostat publications. It is possible to calculate it from the EU-SILC microdata but there is quite some delay before Eurostat releases the microdata with all EU countries. Eurostat publishes AROP rates anchored in 2005 and 2008, but the fixed poverty rates can be hard to interpret or even meaningless if the anchor point is quite far in the past.

In order to track the national progress achieved on 'absolute' poverty, one option could be to substitute the Eurostat AROP rate anchored in 2017 by the national AROP rates anchored in time that CSO releases every year.[15] However, it is important to note that the CSO at risk of poverty anchored in time can only be used for measuring national progress and not for comparison with other EU member states.

The Roadmap also included an indicator specifically focused on the group of people that are employed yet at risk of poverty. Even though employment is one of the most protective factors against poverty and social exclusion (Doorley et al., 2022; Förster & Mira D'Ercole, 2005; Lohmann & Marx, 2018; OECD, 2009), poverty is not restricted to those who are unemployed or inactive in the labour market and there is still a group of workers that are at risk of poverty. The in-work AROP measure identifies the population aged 18 to 59 who are at work (employee or self-employed) and who live in a household with an equivalised disposable income below the 60% national median equivalised disposable income. In 2018, 4.8% of people were at risk of poverty despite being in work. In 2021, this share of the population had decreased by 0.5 percentage points, meaning that it would have to come down by 0.8 percentage points between 2021 and 2025 to meet the target.

[15] While the CSO released AROP rates anchored at different periods of time from 2004 up to 2018, this was only available up to SILC 2019's release. Since the methodological change introduced by CSO from SILC 2020 onwards, CSO publishes only AROP rates anchored in 2020.

The in-work AROP indicator is designed to capture the share of people that face poverty despite being in work, and has received substantial attention in recent years in Ireland and internationally (Ahrendt et al., 2017; Maître et al., 2018; OECD, 2009; Watson et al., 2012). The in-work AROP indicator likely picks up a large part of the group of people that are employed and experience poverty or social exclusion. However, one of the main limitations of this measure is that to be considered in work, an individual needs to have provided their activity status for at least seven months of the reference year and have spent half of that year at work. This means that it excludes people who worked less than seven months (continuously or intermittently) in the reference year, which may be related to doing seasonal work as well as being in precarious or low-paid jobs, which themselves are often considered risk factors of in-work poverty (Llosa et al., 2022; Lohmann & Marx, 2018). Beyond these limits in the methodology of the measurement of in-work poverty, in-work poverty can be related to a number of factors, including low pay, low number of working hours, quality of employment, gender, and the presence of few working-age people and few working people in the household. Yet the in-work AROP measure cannot distinguish between these causes, which makes it is difficult to develop policy measures to tackle in-work poverty without a detailed analysis of all potential contributing factors. Thus, while this is a useful measure, it is important to keep these limitations in mind when looking at the rates.

Finally, under the aim of reducing income poverty, the Roadmap also included two indicators focused on specific vulnerable groups. It considered the AROPE rate for children under 18 years of age and for people with disabilities. The goal was to reduce the AROPE rate for children under the age of 18 from 24.7% in 2018 to 16% in 2025.[16] In 2021, the rate stood at 22.8%, suggesting that some progress had been made but also indicating that a further reduction of 6.8 percentage points is required to meet the target by 2025. Regarding people with disabilities, the 2025 target was to bring down the AROPE rate to 28.7%, and in 2021 the rate had increased to 38.9% from 36.8% in 2018.[17]

[16] It is worth mentioning that in the Roadmap document the AROPE for children based on the EU2020 AROPE measure stood at 23.9% in 2018 and has been updated since to 24.7% based on the EU2030 AROPE measure.
[17] The AROPE rates for children and people with disabilities are based on the EU2030 strategy.

As mentioned above, relying on the AROPE rate has the advantage that it is easy to make comparisons across EU countries and thus to track Ireland's relative progress. It is also meaningful to report numbers for specific groups that might be at greater risk of poverty or social exclusion because this may reveal patterns that would be missed by looking only at the rate for the overall population. However, rather than only considering their risk after social transfers, it may be relevant to understand to what extent these groups benefit from social transfers and to what extent they may require greater attention in terms of being lifted out of poverty. It can thus be informative to compare the AROP rates before and after social transfers for specific vulnerable groups, as also suggested by previous research (Watson & Maître, 2013) and to include more groups than only children and people with disabilities. Recent research has, for example, identified renters and lone parents as being at high risk of poverty (Roantree et al., 2022).

2.5 Summary

In this chapter, we focused on the monetary EU indicators. We described the progress (or regress) that was made on each indicator that was linked to the aims in the Roadmap in the period from 2018 to 2021 and discussed some of their advantages and limitations. The main findings and conclusions are presented in Table 1.

Table 1: Overview of the monetary EU indicators

Aim	Measure	Absolute level			Measurement issues
		2018	2021	target	
Risk of poverty or social exclusion	The share of people who are at risk of poverty or social exclusion (AROPE)	20.8%	20%	16.7%	• A revised version of the AROPE measure is used for the EU 2030 strategy. • VLWI component is limited by age and includes causes of poverty in indicator.
Income distribution	The income quintile share ratio	4.2:1	3.8:1	3.8:1	• Complement with a measure that considers the entire income distribution, such as the Gini coefficient.
Income poverty	The share of people who are at	41%	43.3%	37.9%	

	risk of poverty before social transfers (incl. pensions)				• Useful for understanding the effectiveness of social protection. • Could be presented separately for relevant vulnerable groups.
	The share of people who are at risk of poverty after social transfers	14.9%	12.9%	12.8%	
	The share of people who are at risk of poverty anchored in 2017*	15.6%		13.3%	• Useful for measuring variation in 'absolute' poverty over time. Eurostat no longer publishes results anchored in 2017. • Could use national AROP rates anchored in time.
	The in-work AROP rate	4.8%	4.3%	3.5%	• Does not include people who worked less than seven months (continuously or intermittently), which may be associated with lower paid and precarious work.
	The AROPE rate for children under 18 years of age	24.7%	22.8%	16%	• Most useful when combined with a measure of AROPE before social transfers. • Other vulnerable groups could be included, such as lone parents
	The AROPE rate for people with disabilities	36.8%	38.9%	28.7%	

Note: * Data for 2018 were not available at time of publication of the Roadmap and 2017 data were used.

Except for the AROP rate before social transfers and the AROPE rate for people with disabilities, progress was made on all monetary EU indicators, despite the challenges posed by, among other things the COVID-19 pandemic and Brexit. In this regard, it is particularly worth noting that while the pre-transfer AROP rate increased in 2021, the AROP rate after social transfers decreased. This suggests that Ireland's response to the pandemic prevented people from falling into poverty (see also Regan & Maître, 2020), and highlights how some of the indicators are more instrumental and most useful when placed into context and considered together with other indicators.

The review of the indicators showed that in many cases the chosen indicators were meaningful but also demonstrated that there is room for improvement. Many of the monetary EU indicators have the advantage that they are easily available, are harmonised and facilitate comparisons across EU countries. Moreover, they are constructed by Eurostat, placing less of a burden on national institutions. However, as the discussion in this chapter shows, they have limitations and, in many cases, they could be supplemented with additional measures to present a fuller picture. It would, for example, be useful to add the AROP rate after social transfers for more vulnerable groups. However, such measures are less readily available from Eurostat and have to be calculated using the microdata.

Furthermore, the dependence on Eurostat indicators inevitably means that there is little flexibility in the design of measures to more accurately capture people's national experiences. Besides, because they are developed to provide a broader perspective and track progress on a European level, they often differ from the national measures, which might be more apt to capture the national interests. The Irish consistent poverty measure may, for example, be more suited for capturing the overall level of poverty and social exclusion than the AROPE, which includes the VLWI indicator that has several methodological shortcomings. Finally, due to the reliance on Eurostat, there is no control on the timing for monitoring poverty and the schedule for publication, as Eurostat is also dependent of the timing of the data delivery from the National Statistical Institutes.

Chapter 3: Non-monetary EU Indicators

3.1 Introduction

The structure of this chapter follows the previous chapter on the monetary EU indicators. In addition to financial indicators, the Roadmap includes nine indicators to monitor progress in relation to the following three aims:

1. maintaining Ireland's rank within the top five countries regarding housing quality
2. becoming one of the best five countries or maintaining the rank within the top five countries regarding socio-economic aspects of living conditions
3. becoming one of the top five countries in relation to social participation and integration.

In this chapter, we discuss progress in the abovementioned aims and provide an evaluation of the related nine non-monetary EU indicators. The three overarching aims were again set in relative terms, but the specific targets were stated in absolute numbers. Hence, in the following, we present the current levels of the indicators for Ireland rather than showing Ireland's ranking in relation to other EU countries, which will be discussed in more detail in an upcoming ESRI report. However, we occasionally mention Ireland's ambition to maintain or improve its relative position in the EU.

3.2 Housing quality

The 2018 Living Conditions in Europe report named housing as a fundamental characteristic of material living standards and well-being. According to the Roadmap, the goal was to reduce the housing cost overburden rate from 3.4% to 2%, and the overcrowding rate from 2.7% to 2.5%. In 2021, they stood at 2.5% and 3.4% respectively, indicating a strong improvement for the former but a slight regression for the latter compared to the 2018 numbers.

Housing quality is a relatively broad term and can be understood to include a range of issues. Overcrowding and housing costs are two of them. The housing cost

overburden rate indicates if a household spends a considerable share of its income on housing, which may mean that it has to defer or cut expenditure on other items. In the Roadmap, the housing cost overburden rate was calculated in the same way as in the European Pillar of Social Rights, i.e. the share of the population that allocated 40% or more of their disposable income[18] to housing costs. However, it is important to note that while this indicator is used by Eurostat, this is a relatively high threshold and in the literature, unaffordable housing costs are commonly defined as exceeding 30% of household income, either gross or net (Corrigan et al., 2019).[19] Besides, the 40% housing cost overburden rate may not capture the high cost of housing; Ireland performed relatively well on this measure, but simultaneously had the highest housing cost in Europe, which was about 84% higher than the EU average (Eurostat, 2020).

In addition to reducing the threshold to 30% of the household income, there are at least three alternative measures that could provide additional insights into housing affordability, and that have been previously been used for monitoring housing in the Irish context (see Russell et al., 2021).

- The first alternative measure is the share of households that spend more than 30% of their income on housing costs and that are also in the bottom 40% of the income distribution. This is sometimes referred to as the '30/40 rule', and thus explicitly focuses on lower income households for whom spending a greater percentage of their income on housing may have more severe consequences. However, it is important to note that this measure focuses on the lowest four income deciles and thereby ignores the income groups that are most likely to rent in the unsupported private sector, where there may be a greater incidence of affordability issues (Doolan et al., 2022; Roantree et al., 2022).

[18] The income available for spending and saving after subtracting income taxes and pension contributions.
[19] Using Irish data, Corrigan et al. (2019) used disposable income.

- The second alternative indicator is the proportion of households who are below the poverty line after housing costs are deducted,[20] thereby directly tapping into the notion that spending on housing affects the income that remains for expenditure on other things. This measure is relatively easily available since the Central Statistics Office has started to report the AROP rate after rent and mortgage interest rate in its well-being statistics.[21]
- The third alternative measure is the share of people who were in rent or mortgage arrears in the past 12 months. This may give an indication of what part of the population has difficulty affording adequate housing.

The housing overcrowding rate presents another aspect of housing quality, which is more concerned with housing conditions. There are different overcrowding measures such as the UN-Habitat, the American Crowding Index, the British Bedroom Standard and the Eurostat measure, as described here. The Eurostat housing overcrowding rate is calculated based on the number of rooms that are available to a household, the household's size, the ages of its members and the family situation. Accordingly, a household is considered overcrowded if it does not have a minimum of one room for the household, one room per couple, one room for each single person aged 18 and over, one room per pair of single people of the same gender aged 12–17 and/or one room per pair of children aged under 12. Yet the overcrowding rate tends to be relatively low in most Western European countries, and only focuses on a single element of housing conditions. Another concern is that the measure is based on data from SILC, which is a household survey and does not include information on groups that may be more vulnerable and for whom overcrowding may be a bigger issue, such as people living in emergency accommodation or direct provision centres. It could therefore be meaningful to consider additional indicators of housing quality. Notably, previous research in the Irish context (Grotti et al., 2018) used an index of housing quality based on four items available in the SILC dataset:

[20] This indicator is calculated based on the equivalised income minus the total rent paid and mortgage interest. The total rent paid includes private rents but also housing supports such as the Housing Assistance Payment (HAP), Rent Supplement and Rental Assistance Scheme (RAS), which are included in the household income.
[21] See CSO website for 2020 and 2021 detailed statistics (https://www.cso.ie/en/releasesandpublications/ep/p-wbhub/well-beinginformationhub/housingandbuiltenvironment/atriskofpovertyrateafterrentandmortgageinterest/).

1. living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames or floor
2. lack of central heating
3. lack of double glazing
4. considering their dwelling as too dark.

Unfortunately, the second and third items are no longer collected from SILC 2020 onwards. However, the two remaining housing items could still be used and could potentially be combined with some available items on the environment of the households (noise from the area, pollution, crime/violence) in order to track progress on a much broader dimension of environmental quality in Ireland and how people experience it. However, this requires further investigation into the validity and reliability of such a measure, which is beyond the scope of this report.

3.3 Socio-economic aspects of living conditions

The health status of individuals can have a profound impact on their living standards. Therefore, the Roadmap set the target to maintain the high share of people that reported their health as either good or very good. The share stood at 84.2% in 2018, but in 2021 it had decreased slightly to 81.1%. This reduction could be due to the overall effect of the pandemic on the general population's health (physical and mental), as observed in other countries (Michaud et al., 2022; Moniuszko-Malinowska et al., 2022; Peters et al., 2020). Additionally, the Roadmap outlined the target to bring down the share of the population with unmet health care needs due to cost or expense from 0.9% in 2018 to 0.1% in 2025. In 2021, this target was reached, representing a decrease of 0.8 percentage points compared to three years earlier.

The self-reported health measure is based on a question that asks people to judge their general health on a five-point scale ranging from 'very good' to 'very bad'. It is a common indicator, which is, for example, also used in other surveys, such as Survey of Health, Ageing and Retirement in Europe; Health Interview Survey; the European Working Conditions Survey; and the European Social Survey (ESS). This measure is

a good predictor of a range of relevant outcomes such as mortality (Bowling, 2005; Doiron et al., 2015; Miilunpalo et al., 1997), but is less well suited for comparing rates across countries because people from different countries differ in terms of how optimistic or pessimistic they are in their subjective responses and because of the different age profiles of the national populations (e.g. Jurges, 2007). For country comparisons, it might therefore be better to consider relativities between groups within countries than to look at absolute rates. It may, for example, be meaningful to report the ratio between the lowest and the highest income groups that report their health as good or very good.[22] This may not only be a better way to make country comparisons, but also be more informative in terms of social inequalities.

The unmet healthcare needs indicator used in the Roadmap was based on a question that asked respondents if they had needed a medical examination or treatment for a health problem but not received it because they could not afford it in the past 12 months. This is a relatively common measure and has been used in the Irish context previously (Connolly & Wren, 2017). However, unmet needs is a complex concept and there are important concerns regarding the validity of this measure, which put its use into question, despite the increasing interest in it (Smith & Connolly, 2020).

The share of the population with unmet healthcare needs due to cost or expense in the SILC data is very low at 0.1%, especially when compared to other data sources.[23] This brings up the question of whether it is accurately capturing people's (unmet) needs and could result in reliability problems with the release of data because of the small numbers concerned. The underlying issue may be that the question captures only the share of people that could not access healthcare due to costs, while there are many factors that could prevent people from getting the care they need, such as waiting lists, lack of availability or inability to get time off work.

[22] This indicator is not readily available from the Eurostat website but can be calculated using the microdata.

[23] For example, according to data from the European Health Interview Survey 2019 published by Eurostat, 12.1% of Irish respondents had a self-reported unmet need for healthcare due to financial reasons. This went up to 22.8% when additionally considering unmet health care needs due to distance or transportation and waiting lists. For more information see https://ec.europa.eu/eurostat/databrowser/bookmark/108b828f-1cb0-4912-a9c2-9bf6b011328c?lang=en&page=time:2019

Another reason may be that the SILC primarily collects data on income, poverty and social exclusion, and respondents may not be actively thinking about their health. While we are currently not aware of good regular alternative indicators available for Ireland, it is important to investigate the reasons behind the small share of people with unmet health care needs due to cost in the SILC, which seems to be at variance with other data sources. Additionally, it would be helpful to explore other potential data sources.

The Roadmap also included an indicator of childcare and education arrangements under the 'socio-economic aspects of living' aim. The chosen measure was the share of children receiving formal childcare. In 2018, 69.2% of children above the age of three were in formal childcare for a duration of one to 29 hours per week, and in 2021 this had increased to 74.6%, exceeding the 2025 target of 69.4%.

The share of children receiving formal childcare is an important indicator because better access to affordable childcare can help to improve female labour market participation and reduce gender inequalities (Cascio et al., 2015). Moreover, high-quality early childhood education and care (ECEC) can positively impact child development and mitigate educational inequalities (e.g. van Huizen & Plantenga, 2018). However, the Roadmap only considered the share of children receiving formal childcare from three years to minimum compulsory schooling age for a duration of 1–29 hours.

The reliance on this single indicator may give a skewed view because it likely mostly reflects the effects of the Early Childhood Care and Education (ECCE) scheme, which provides two years of free preschool for three hours a day for all children above the age of three. Yet the number of hours provided under the scheme is comparatively low (Gromada & Richardson, 2021). Furthermore, compared to the share of children aged between three years and the minimum compulsory school age who received formal childcare for a duration of 1–29 hours, enrolment rates in Ireland are considerably lower for children below the age of three or when considering the share of children attending formal childcare for more than 29 hours (Di Meglio et al., 2018). Besides, this measure does not take account of the high

costs of childcare in Ireland (Gromada & Richardson, 2021), even though high costs may negatively impact on maternal employment (Russell et al., 2018).

Therefore, it seems important to add a measure that captures the affordability of childcare and the associated social inequalities. It could, for example, be meaningful to include the gap between the top and bottom income groups in enrolment rates in formal childcare of children under the age of three. Such a measure can easily be created with existing data and would reflect differential access to childcare as well as differences in labour market opportunities, skills and education and potentially preferences.

3.4 Social participation and integration

One of the other high-level goals in the Roadmap for Social Inclusion 2020–2025 is to build inclusive communities and to encourage active citizenship. This goal is related to the idea that active participation in cultural and social life is a key component of social inclusion.

The Roadmap includes two measures that relate to social participation and integration against which progress can be tracked. The first measure is an indicator of active citizenship, based on a question regarding participation in the activities of a political party or a local interest group, participation in a public consultation, peaceful protest including signing a petition, participation in a demonstration, writing a letter to a politician and writing a letter to the media. In 2015, the rate of active citizenship was 13%; the goal is to increase this to 17% in 2025. The second measure is an indicator of involvement in formal voluntary activities. In 2015, 29% of the population indicated that they had done formal voluntary work in the past 12 months and the goal is to increase this to 34% by 2025.

However, these two measures of social participation and integration are based on an ad-hoc module from the EU-SILC dating back to 2015. This means that tracking progress on these indicators is currently dependent on additional modules becoming available, which is uncertain. It is thus desirable to identify other measures that could

serve as indicators of social participation and integration so that progress can be tracked. Such measures should ideally be measured on a regular basis to enable consistent reporting on progress, and at a European level to allow for ranking.

The ESS provides a good possible alternative to the EU-SILC ad-hoc module on social participation and integration. The ESS is an academically driven multi-country survey that measures the attitudes, beliefs and behaviour patterns of diverse populations within Europe. Every two years, face-to-face interviews are conducted with newly selected, cross-sectional samples, the latest round of data collection having taken place in 2020.[24] The core modules of the ESS survey collect important socio-demographic information and contain several questions that bear resemblance to the EU-SILC ad-hoc module and could be used to monitor Ireland's progress in social participation and integration.

The ESS does not have a single question that specifically relates to active citizenship. Instead, it includes eight individual measures that indicate whether the participant:

1. contacted a politician or government official in the last 12 months
2. worked in a political party or action group in the last 12 months
3. worked in another organisation or association in the last 12 months
4. wore or displayed a campaign badge/sticker in the last 12 months
5. signed a petition in the last 12 months
6. took part in a lawful public demonstration in the last 12 months
7. boycotted certain products in the last 12 months
8. posted or shared anything about politics online in last 12 months (only available from round 9/2016 onwards).

These eight questions could be combined into a single measure assessing the level of active citizenship. A key question, however, is how to combine them. A first option is to create a measure that indicates if the respondent has said 'yes' to at least one

[24] Data for Ireland are due to be released by the end of 2022, but were not yet available at the time of writing of this report. The data presented in Table 2 are based on ESS round 7, which was collected in 2014 and is thus closest to the last EU-SILC module that included questions on social participation and integration.

of the eight questions. The advantage of this approach is that it is conceptually very close to the active citizenship question asked in the ad-hoc module of the EU-SILC. However, with this approach the rate of active citizenship will likely be much higher than in the EU-SILC because people are answering eight questions instead of one, and the threshold of some of the items, such as signing a petition, is arguably quite low and sensitive to political events. A second and potentially better option is, therefore, to create a measure with a higher threshold. In Table 2 we show the rates of active citizenship, broken down by level of education, income and sex, based on the original EU-SILC for 2015 and on three options based on the ESS 2014 data using different thresholds.

Table 2: Active citizenship rate for different groups based on three measures

	Total	**Education**			**Income**		**Sex**	
		Low (ISCED 0–2)	Medium (ISCED 3–4)	High (ISCED 5–8)	Lowest (bottom quintile)	Highest (top quintile)	Women	Men
EU-SILC 2015	13.0%	7.9%	12.1%	17.5%	9.5%	18.3%	12.6%	13.6%
ESS ≥1 item	46.2%	40.0%	44.6%	52.9%	42.3%	61.5%	44.5%	47.9%
ESS ≥2 items	26.7%	21.4%	25.1%	32.7%	23.2%	43.0%	25.2%	28.4%
ESS ≥3 items	16.0%	12.4%	14.5%	19.1%	12.4%	22.8%	14.8%	16.4%

Note: EU-SILC data retrieved from Eurostat (https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Social_participation_and_integration_statistics#Formal_and_informal_voluntary_activities). Eurostat has marked the Irish data as unreliable. ESS data from Round 7 (2014), weighted data presented. In the ESS, participants were asked to place themselves in one of the precalculated income deciles. We combined the bottom two and top two categories of this income variable in order to create two categories that would be similar to the top and bottom quintiles. It is important that they are not actual quintiles like in the EU-SILC and the income measures are thus not directly comparable between the two datasets. However, they can still be used to identify a general trend.

From Table 2 we can see that the ESS measures show similar patterns to the EU-SILC measure across the groups. Across the four measures, active citizenship rates are higher among those with higher levels of education, those with a higher income and men. However, as expected, the rate of active citizenship is much higher for the least strict combined ESS measure (≥1 items). Yet when using the stricter ESS measure (≥3 items) the rates are more similar to the EU-SILC measure, indicating this might be the preferred measure.

Furthermore, while the previous rounds of the ESS did not include regular questions on volunteering, the latest round of data collection (round 10/2020), which is expected to be released in early 2023, saw the inclusion of the following question in the political engagement core module.

- Have you volunteered for a not-for-profit or charitable organisation in the last twelve months?

This means that even though the ESS cannot currently provide estimates of the population's participation in voluntary work, it will likely allow for this in the future.

Finally, another possible alternative is the European Quality of Life Survey (EQLS), which monitors the quality of life in multiple dimensions across EU member states. The EQLS is a representative survey that covers the adult population (18+) and has been carried out every four to five years since its establishment in 2003. The advantage of the EQLS is that it includes a variety of questions regarding individuals' participation in society and community, including questions on active citizenship and volunteering. However, the data collection is not as regular as the ESS and the latest round of data is from 2016. Therefore, the ESS takes preference as an alternative to the EU-SILC ad-hoc module for the purpose of monitoring Ireland's progress on social participation and integration.

3.5 Summary

In this chapter, we focused on the non-monetary EU indicators that were highlighted in the Roadmap.[25] We discussed Ireland's progress (or regress) in these indicators and discussed some advantages and disadvantages to using them. The main findings and conclusions are summarised in Table 3.

Table 3: Overview of the non-monetary EU indicators

Aim	Measure	Absolute level			Measurement issues
		2018	2021	target	
Housing quality	The housing cost overburden rate	3.4%	2.5%	2%	• Lower the threshold from 40% to 30%.

[25] The VLWI indicator is a component of the AROPE measure, which was discussed in detail in Chapter 2.

					• Consider additional or alternative measures, such as the AROP after housing costs are deducted.
	The overcrowding rate	2.7%	3.4%	2.5%	• The overcrowding rate tends to be low and may not be the most informative measure. • Explore the feasibility of a new housing quality measure.
Socio-economic aspects of living conditions	The share of the population who report their health as either good or very good	84.2%	81.1%	84.2%	• Common and meaningful measure for national use, but can be problematic for international comparisons. • Can be influenced by cultural and personal differences.
	The share of the population reporting unmet healthcare needs due to cost/expense	0.9%	0.1%	0.1%	• Established measure, but may not accurately reflect people's experiences. • Advisable to remove it.
	The share of the population living in households with VLWI*	13.1%	13.0%	5.5%	• See the comments on this indicator in Chapter 2
	The share of children receiving formal childcare**	69.2%	74.6%	69.4%	• Only reflects the share of children above the age of 3 and does not explicitly measure affordability. • Include an indicator of the gap in formal care enrolment between higher and lower income groups.
	The share of the population suffering severe material deprivation†	6.1%	5.1%	3.1%	• Investigate potential breakdown by vulnerable groups (lone parents, people with disabilities)
Social participation and integration	Active citizenship rate	13%	16.9*** *	17.2%	• Switch to a data source that allows for more regular tracking of progress. • The ESS provides possible alternative measures. • Newer rounds of the ESS will include a measure on volunteering.
	Participation in formal voluntary work	29%	n/a	34.1%	

Note: † To be consistent across chapters, these results are based on the deprivation measure (13 items) used in AROPE EU2030 and therefore differ from those presented in the Roadmap for Social Inclusion 2020–2025 Second Progress Report, which are based on the deprivation measure (9 items) used in AROPE EU2020.
* Due to technical sampling issues ((Watson, Maître and Russell) 2015), the EU-SILC VLWI indicator is not the most appropriate survey for measuring jobless households in Ireland. It is anticipated that the upcoming Integrated European Social Statistics (IESS) regulation should harmonise these social surveys at a technical level from 2020 onwards.
** From three years to minimum compulsory school age (duration: 1–29 hours).
*** Data relate to an ad-hoc module (2015 only) and future reporting is dependent on additional modules being available
**** Based on the ESS Round 9 (2018) instead of the EU-SILC module and thus not directly comparable.

Compared to monetary EU indicators, the progress made on the non-monetary indicators was more mixed. For some indicators, substantial improvements were recorded. The housing cost overburden rate, for example, went down from 3.4% to 2.5%, and the share of children receiving formal childcare increased to 74.6%, already exceeding the 2025 target of 69.4%. For other indicators, only minor improvements or even slight regressions were documented. The overcrowding rate, for example, went up from 2.7% to 3.4%, and the share of the population who report their health as either good or very good decreased from 84.2% to 81.1%, which might reflect the effects of the COVID-19 pandemic.

The non-monetary EU indicators share many strengths and weaknesses with the monetary EU indicators. A clear advantage to using these EU indicators is that they are easily available through Eurostat, harmonised and comparable across EU countries. However, they also tend to be relatively inflexible and harder to adapt to national needs and interests. In some cases, such as the unmet healthcare needs indicator, this means that it might be better not to include a measure. In other cases, national indicators, such as the AROP rate after housing costs, can be used to complement EU indicators.

Moreover, where it is relevant to facilitate country comparisons, it may often be more useful to look at the ratio between the top and bottom income groups. In this regard, it is also important to note that setting goals in terms of rankings focuses the attention on relative progress, even though such rankings say very little about the absolute levels of poverty and social exclusion, which are important in their own right. Because rankings are dependent on other countries' performances on the

indicators, Ireland's ranking could improve even if absolute levels in Ireland are stable or increase slightly (but at a lower rate). This is why it remains crucial that the Roadmap also includes absolute targets.

Finally, some of the chosen measures are not available on a regular basis, making it hard to track their progress over time. It is therefore important to consider possible alternatives. It may be possible to track progress on social participation and integration using ESS data, which are collected regularly, rather than relying on the rotational modules of the EU-SILC.

Chapter 4: Irish Indicators

4.1 Introduction

In addition to several indicators that can monitor Ireland's performance as compared with other EU states, the Roadmap includes five target levels for 2025 specific to Ireland. These national targets are accompanied by five national indicators to track progress. While these indicators are often based on the same data as the EU indicators for Ireland produced by Eurostat, the national indicators produced by the CSO are constructed in different ways and rely on different definitions.[26] In this chapter, we investigate Ireland's progress in these Irish indicators and discuss some of their main advantages and limitations.

4.2 National social target for poverty reduction

The first national target was the social target for poverty reduction, which was measured by the share of the population in consistent poverty. This meant that the target was set in terms of what share of the population was both below the 60% median income threshold and deprived of at least two of the 11 items on the basic deprivation list. A long-standing goal of the Irish government has been to reduce the consistent poverty rate to below 2%, and this is also the 2025 target. In 2018, the consistent poverty rate was 5.6%, and in 2021 this had reduced to 4%, indicating that some progress was being made.

While the overall consistent poverty rate is relatively low, it hides the large variation across some groups of the population. This is why it might be worth considering setting national poverty targets for specific groups (as done for children, for example: see below). For example, the CSO 2018 SILC release showed that in 2018 the consistent poverty rates for lone parents and people not working due to illness or disabilities were 19.2% and 21.3% respectively, almost four times the national figure of 5.6%. Furthermore, it is important that the measure of deprivation that is included in the consistent poverty measure correctly captures the standard of living in the

[26] See for example the use of different equivalence scales in Chapter 2, and for further details https://www.cso.ie/en/releasesandpublications/ep/p-silc/surveyonincomeandlivingconditionssilc2021/backgroundnotes/.

population. A recent report found that the current 11-item measure still captures deprivation well and has reliable internal consistency and validity (Maître & Privalko, 2021), yet it is important to continue to reassess the measure of deprivation every few years as the standard of living in society changes over time.

4.3 Child poverty target

Another national target outlined in the Roadmap was to maintain the ambition to lift over 70,000 children (aged 0–17 years) out of consistent poverty by 2020, which would mean a reduction of at least two-thirds on the 2011 level (107,000 children). Thus the goal was to reduce the number of children living in poverty to 37,000 (107,000 − 70,000) by 2020. However, the number of children living in poverty stood at 63,000 in 2021:[27] in other words, a further reduction of 26,000 would be required to have reached the 2020 target. There is no post-2020 target specifically for children, though the Roadmap commits to continued reporting on the 2020 target until a new one is set.

The target set in the Roadmap was clearly ambitious, and a significant investment of resources will be needed to meet and subsequently maintain it. While consistent poverty is an important and relevant measure, it is advisable to formulate the target based on an agreed percentage rather than a set number of children. This is because a percentage may be easier to interpret and is not affected by the changing population size. Besides, the CSO currently uses percentages in its reporting on poverty and deprivation for children. The 2020 target would, for example, correspond to reducing the share of the population under the age of 18 in consistent poverty to about 3.2%.

4.4 Employment target for people with a disability

The Roadmap also set a target for increasing the level of employment among people with a disability, and it was proposed to track progress using Census data. According

[27] The Roadmap for Social Inclusion 2020–2025 second progress report, published in October 2022, reports 62,000 children living in consistent poverty in 2021. The difference from our number of 63,000 children based on the analysis of the microdata could be due to a revision of the weights in SILC between the two publications.

to the 2016 Census, 22.3% of the people with a disability were in employment, and the target was to increase this to 25% by 2021 and to 33% by 2026. While the 2026 target would mean an increase of about 10 percentage points over a period of 10 years, it is important to note that other data sources show that employment rates of people with disabilities have been quite stable over time (Kelly & Maître, 2021) and are comparatively low in Ireland. In a recent report, the OECD noted that the disability employment gap in Ireland is much larger than in most other OECD countries and twice the OECD average (OECD, 2021).

A target of 33% may thus be realistic but remains low compared to the disability employment rate in other European countries. A more ambitious target would be to increase the rate to the EU average of around 50% (*Disability in the EU: Facts and Figures*, 2022). Furthermore, it may be more insightful to formulate targets in terms of the difference in employment levels between people with and without disabilities than to look at the employment levels of disabled people per se, because this says more about relative inequality (van der Zwan & de Beer, 2021). For example, if the overall employment level is high, the employment level of persons with a disability will likely also be higher, but a disability employment gap may nevertheless exist or even increase if the rate of growth is greater for the group without a disability.

Finally, even though the employment level of people with a disability may be a good measure, the reliance on Census data inevitably means that progress can only be reported every five years. It is therefore desirable to identify another possible data source that would allow for more regular monitoring. The SILC and the Labour Force Survey (LFS) are possible alternative data sources that are collected at more regular intervals than the Census. However, it has been found that there is considerable variation in the prevalence of disability reported between these two sources, with the SILC providing estimates that are closer to the number reported in the Census than the LFS (Kelly & Maître, 2021). Kelly and Maître (2021) also reported similar employment levels for people with disabilities based on data from the 2016 Census (i.e. a third) and SILC (i.e. 36%).[28] The SILC may thus be a good alternative to the

[28] The 2016 Census figure of 33.9% reported by Kelly and Maître (2021) is for the working age population aged 15 to 64, while the 22.3% in the Roadmap is for people aged 15 and over.

sole reliance on Census data, especially because it will also allow for a more detailed breakdown.

4.5 Education

The national target for education was based on the retention rates at secondary level. The aim was to continue to improve the retention rate in Delivering Equality of Opportunity in Schools (DEIS) schools, which stood at 85% in 2018, in order to reach the national norm, which was 91.6%. For the 2014 cohort, who sat the Leaving Certificate examination in 2019 or 2020, the national norm was 91.5% and the rate for DEIS schools was 84.8%. Both rates had thus decreased slightly compared to the 2011 cohort, and the gap in retention between DEIS and non-DEIS schools had increased from 6.6 to 6.7 percentage points.

Retention rates to the Leaving Certificate are an important indicator because early school leaving is associated with a range of negative labour market and other outcomes, including unemployment and lower lifetime earnings (Byrne & Smyth, 2010). However, it might be better to set the target in terms of the gap in retention between DEIS and non-DEIS schools than to aim to reach the national norm. This is because the national norm is calculated as the average across all schools and is thus partly based on the retention rates of DEIS schools.

Furthermore, it may be even better to directly compare the retention rate across relevant groups of students rather than between DEIS and non-DEIS schools, especially as not all disadvantaged students reside in disadvantaged areas and attend DEIS schools. It would, for example, be meaningful to report retention rates by social and ethnic background or disability status. It could also be meaningful to report literacy and numeracy scores across relevant groups, which are available from the Programme for International Student Assessment (PISA), run every two years. These data have previously been used by the Department of Education for setting DEIS targets in the DEIS plan 2017.[29]

[29] For more details see https://www.gov.ie/en/publication/0fea7-deis-plan-2017/.

4.6 Social housing

The final national target listed in the Roadmap related to social housing. The target was to deliver 50,000 new social homes through building, refurbishment, acquisition and leasing by 2021, and to continue to deliver 12,000 new social homes annually thereafter.[30] According to the social housing output overview, 35,416 new social homes (excluding new Rental Accommodation Scheme (RAS) and Housing Assistance Payment (HAP) recipients) were delivered in the period between 2018 and 2021. This means that an additional 14,584 homes would have had to be delivered to meet the Roadmap's target.

Delivering 50,000 new social homes (excluding new RAS and HAP recipients) by 2021 and 12,000 annually thereafter provides a concrete target against which progress can be tracked. However, the target specifies the supply of new social homes but does not mention the demand. While it may be hard to measure how large the actual need for new social homes is, it would be more meaningful to track progress in terms of supply and demand, for example measured by social housing lists. The Housing Agency publishes annually a Summary of Social Housing Assessments report, which presents information provided by local authorities on households that are qualified for social housing support but whose social housing need is not currently being met. While this publication does not have detailed information, such as the waiting list for local authority social housings, the overall waiting list numbers could be used for monitoring progress on the demand for social housing support.

Furthermore, Chapter 8 of the Roadmap mentioned that an additional 88,000 households would have their housing need met through the HAP scheme and the RAS. However, this indicator was not included as one of the key measures for monitoring progress. Considering the increasing prevalence of rent subsidies in

[30] The second Progress Report on the Roadmap for Social Inclusion 2020–2025: Ambition, Goals, Commitments, published in October 2022, reports social housing numbers that include the RAS and the HAP, accounting between them for over 60% of the total new social housing.

recent decades, it would be insightful to additionally report regularly on the share of people in receipt of the HAP and RAS.[31]

4.7 Potential new indicators

Chapter 8 of the Roadmap discussed the goal to ensure that all people can live with confidence that they have access to good-quality healthcare, housing, energy and food. This included a specific commitment to reduce food poverty (i.e. the inability to have an adequate and nutritious diet due to issues of affordability or accessibility) and fuel poverty (i.e. the inability to afford adequate heating or other energy services), though no specific indicators were associated with this commitment. Nevertheless, with an eye on the current energy crisis in Europe and the high levels of inflation, the share of the population experiencing these types of poverty may be increasingly rapidly. An ESRI report from July 2022 remarked that up to 43% of households could be at risk if energy price hikes continued (Barrett et al., 2022). This makes the addition of these indicators worth considering.

Two measures, which are easily available but not part of the official CSO statistics, could be considered for tracking Ireland's performance regarding access to food and energy. The rate of energy poverty could be monitored based on data from the Irish SILC, which includes three questions that are often combined into one indicator of fuel poverty in the literature (see for example Karpinska & Śmiech, 2021; Pillai et al., 2022; Watson & Maitre, 2015), as follows.

1. Was the household deprived of its ability to keep the home adequately warm?
2. Did the household go without heating during the last 12 months through a lack of money?
3. Were there any arrears on utility bills (in the past 12 months)?

The recent report on energy poverty and deprivation in Ireland (Barrett et al., 2022) was also partly based on a self-reported energy deprivation measure, relying on the

[31] In order not to confuse these numbers with the Roadmap's target to deliver new social homes through building, refurbishment, acquisition and leasing, it is advisable to present them separately.

first two items from the SILC that directly relate to heating. The first of these items is also included in both the Irish and the EU measures of deprivation.

Similarly, food poverty could also be measured using a combination of three items from the Irish SILC (Carney & Maître, 2012):

1. inability to afford a meal with meat, or vegetarian equivalent, every second day
2. inability to afford a weekly roast dinner (or vegetarian equivalent)
3. having missed a substantial meal in the last fortnight due to lack of money.

4.8 Summary

In this chapter, we focused on the five proposed national target levels for 2025 and the related indicators. We examined Ireland's progress on these national indicators and discussed their main advantages and limitations. The main findings are summarised in Table 4.

Table 4: Overview of the Irish indicators

Aim	Measure	Absolute level			Measurement issues
		2018	2021	target	
National social target for poverty reduction	The share of the population in consistent poverty	5.6%	4.0%	<2%	• N/A.
Child poverty target	Maintain the ambition to lift over 70,000 children (aged 0–17 years) out of consistent poverty by 2020, a reduction of at least two-thirds on the 2011 level (107,000 children)	92,000	63,000	37,000 (2020)	• Formulate the target based on an agreed percentage rather than a number. • Update target for post-2020.
Employment target for people with a disability	Increase the employment level of people with a disability as measured by Census data, over two census periods	22.3% (2016)	No new Census data	25% (2021) 33% (2026)	• Switch to a data source that allows for more regular tracking of progress; • Set a more ambitious goal, for example in line with the EU average.

					• Formulate the target in terms of the gap to the employment rate of people without disabilities.
Education	Continue to improve retention rates at second level in DEIS schools in order to reach the national norm (currently 91.6%)	85%*	84.8%**	91.6% or national norm	• Formulate targets in relative (i.e. the gaps between groups) rather than absolute terms. • Possibly compare retention rates across relevant groups rather than between DEIS and non-DEIS schools.
Social housing	Under Rebuilding Ireland, deliver 50,000 new social homes by 2021 and a further 12,000 annually post 2021, through build, refurbishment, acquisition and leasing programmes		35,416 by 2021 (from 2018)	50,000 by 2021 12,000 annually post 2021	• Include information about the demand for new social homes in addition to numbers about the supply. • Add an indicator that measures the prevalence of rent subsidies.
Other	Not included in the 2018 report				• Include measures to monitor food and energy poverty.

* Retention rate for the 2011 entry cohort, who sat the Leaving Certificate exam in 2016 or 2017.
** Retention rate for the 2014 entry cohort, who sat the Leaving Certificate examination in 2019 or 2020.

The national indicators suggest that some improvements were achieved, but also that more progress is needed to meet the 2025 targets. In the period between 2018 and 2021, progress was made on two important indicators: the consistent poverty rate, the national headline target for poverty reduction, decreased from 5.6% to 4.0%, and the number of children living in poverty went down from 92,000 to 63,000. However, the target to deliver 50,000 new social homes by 2021 was not met and there was a slight disimprovement in the retention rates of DEIS schools. For the employment level of people with a disability, no new Census data were available.

In the Roadmap, significant attention was paid to standard EU metrics, with one of the main aims being to place Ireland in a top-ranking position compared to other EU countries. Notwithstanding the advantages of this approach, there are also clear

limitations to a focus on EU indicators and country rankings (as discussed in more detail in Chapters 2 and 3), and national measures may be better able to represent facets of poverty and social exclusion that are more context-specific. The inclusion of the national indicators, discussed in this chapter, in addition to EU indicators thus remains of key importance.

The five national indicators represent important policy areas and allow for monitoring Ireland's progress in these areas. However, some national indicators, such as the indicator for education, could be refined further to better capture inequalities, and others, such as the employment level of people with a disability, need to be measured more regularly to be able to monitor progress more consistently. Moreover, more indicators could be added to follow developments in other important areas, such as energy poverty.

Chapter 5: Comparing the AROPEs and Consistent Poverty

5.1 Introduction

Some of the targets in the Roadmap were set in terms of the AROPE indicator. In 2017, the European Commission adopted a revised measure for the AROPE as part of the new EU2030 strategy implemented in 2021, replacing the AROPE measure used in the EU2020 strategy. In this chapter, we explore the effect of this change by comparing the AROPE EU2020 and EU2030 strategies in terms of overall prevalence and identification of AROPE people. We also look at the relationship between the consistent poverty measure and the AROPE measure.

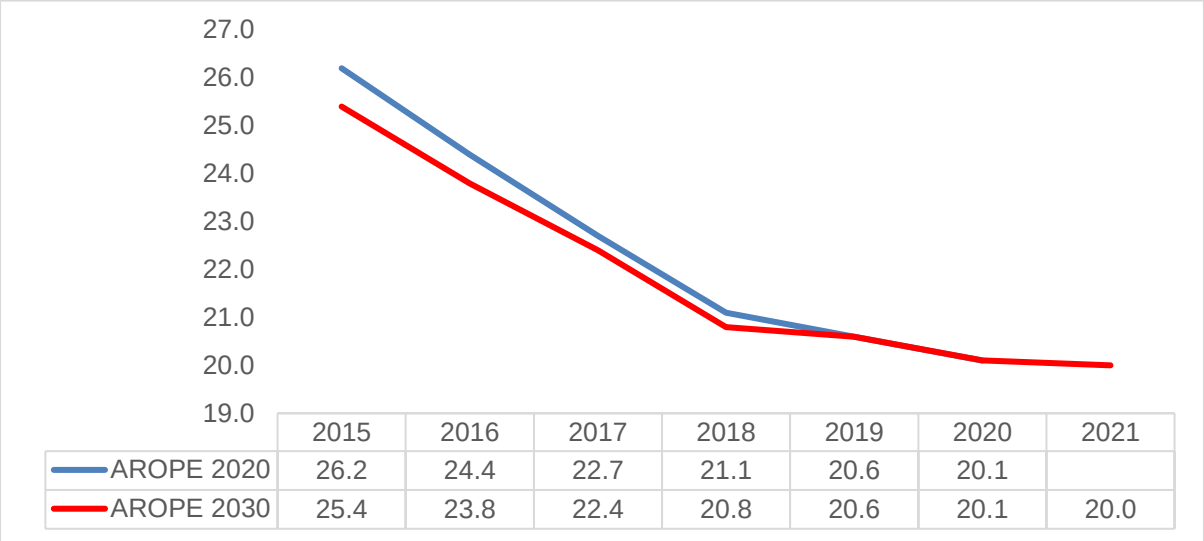
5.2 Comparing the rate of the old and the revised AROPE

The AROPE indicators identify people as being at risk of poverty or social exclusion if they are below the income poverty threshold, are above the material deprivation threshold, or live in a VLWI household. As described in more detail in Chapter 2, the revised AROPE measure used in the EU2030 strategy differs slightly from the measure used in the EU2020 strategy. The new measure replaced the severe material deprivation indicator with a new indicator of material and social deprivation, which considers social items in addition to material items and includes several individual-level items in addition to household-level items. The VLWI indicator was also slightly revised with the definition of the working-age population to include people between the ages of 60 and 64, except if their main source of income is pensions.

The differences between the former and the revised AROPE EU2030 strategy measure could impact on the number of people that are considered to be at risk of poverty or social exclusion. However, the overall percentage of people AROPE appears to be similar between the two measures (see Figure 1). In 2015, there was a small difference of 0.8 percentage points, with the rate of the AROPE EU2020 strategy being slightly higher than the rate of the AROPE EU2030. This difference decreased over the years, and by 2019 the gap between the two measures had closed completely. This indicates that the revised AROPE measure does not identify

a substantially larger group as being at risk of poverty or social exclusion than the former AROPE measure.

Figure 1: Percentage of people AROPE according to 2020 and 2030 strategy measures, SILC 2015–2021



	2015	2016	2017	2018	2019	2020	2021
AROPE 2020	26.2	24.4	22.7	21.1	20.6	20.1	
AROPE 2030	25.4	23.8	22.4	20.8	20.6	20.1	20.0

Source: Eurostat ilc_pees01 and ilc_pees01n

Even though the overall rates seem to be extremely similar for the old and the new AROPE measures, it could be the case that the measures capture different subgroups. Therefore, we also compare the two AROPE measures by age (see Table 5) and household composition and disability (see Table 6). The age risk pattern is similar for both measures. Children experience the highest AROPE, followed by working-age adults, while people aged 65 and over experience the lowest AROPE. The household composition and disability risk patterns are also similar across the two measures. In both cases, single parents have the highest rates of AROPE, followed by single persons aged 65 and over. Two-person households without dependent children experience the lowest AROPE, followed by two-person households with children.

Table 5: Percentage of people AROPE according to 2020 and 2030 strategy measures by age group, SILC 2015–2021

	2015	2016	2017	2018	2019	2020	2021
AROPE 2020							
Less than 18 years	29.0	27.3	25.2	24.1	23.2	23.2	N/A
18–64 years	27.1	24.6	23.0	19.9	19.8	19.2	N/A
65 years or over	16.2	18.1	16.2	20.9	19.4	18.7	N/A
AROPE 2030							
Less than 18 years	29.2	26.8	26	24.7	23.8	23.5	22.8
18–64 years	25.9	23.7	22.4	19.1	19.5	19.0	18.6
65 years or over	15.6	18.1	16	20.6	19.3	18.8	21.3
Source: Eurostat ilc_peps01and ilc_peps01n							

Table 6: Percentage of people AROPE according to 2020 and 2030 strategy measures by household type and disability, SILC 2015–2021

	2015	2016	2017	2018	2019	2020	2021
AROPE 2020							
One adult	39.7	41.8	40.2	45.4	39.1	42.1	N/A
One adult, 65 years or over	28.6	36.5	32.2	46.2	41.9	44.2	N/A
Single person with dependent children	60.5	68.1	65.9	54.4	58.3	58.1	N/A
Two adults, at least one 65 years or over	15.3	14.6	12.9	8.4	9.0	8.6	N/A
Two or more adults without dependent children	19.3	16.6	15.7	12.1	13	11	N/A
Two or more adults with dependent children	23.8	20.5	17.4	16.5	16.1	15.8	N/A
People with disabilities*							
AROPE 2030							
One adult	39.8	40.9	38.6	43.9	39.4	42.2	44.3
One adult, 65 years or over	27.9	35.9	31.8	45.7	42	44.5	46.2
Single person with dependent children	60.5	66.9	65.1	55.9	59.9	57.1	57.7
Two adults, at least one 65 years or over	16.4	15.6	13.6	9.1	9.7	9.7	13.8
Two or more adults without dependent children	18.2	17.2	15.9	11.8	12.9	11.4	10.9
Two or more adults with dependent children	23	19.3	17.3	16	15.8	15.7	14.8
People with disabilities	40.6	41.1	38.1	36.8	37.8	34.0	38.9
Source: Eurostat ilc_peps03 and ilc_peps03n Note: * No Eurostat databank data available.							

5.2 The three components of the old and the revised AROPE

The overall rates and the patterns across relevant groups appeared to be very similar for the old and the revised AROPE. However, it could be that they are driven by different components. The AROPE indicators take a 'union' approach to measuring multidimensional poverty, whereby people are counted as being at risk of poverty or social exclusion if they meet one or more of the criteria. Accordingly, some people identified by the AROPE measures are considered to be at risk of poverty or social exclusion on only one of the three components, some on two, and some on all three. Therefore, we also explore the three components (at risk of poverty, severe material deprivation, VLWI household) of the AROPE measures and how they are related.

Focusing on data from SILC 2019, prior to the pandemic and the change to the new AROPE measure, an analysis of the three components of the AROPE EU2020 measure shows that only a small part of the population is AROPE on multiple dimensions at the same time: about 12% of the population report only one of the three components; 7% report two components; and 2% report all three components. Among those that reported only one component, most are living in a VLWI household (47%), followed by those who were below the 60% median income threshold (35%) and finally those who were severely deprived (18%).

As some have pointed out previously (Nolan & Whelan, 2011; Watson et al., 2012), living in a VLWI household may be a risk factor of poverty rather than an outcome in itself, and there is no clear rationale for its inclusion. The relatively high prevalence of people living in VLWI only among people in AROPE therefore raises some methodological questions regarding the inclusion of the VLWI item in the AROPE measure and its influence on the overall level of AROPE. To illustrate this, we report in Table 7 the distribution of the population AROPE broken down by all the possible combinations of the three AROPE components. These numbers suggest that about one in five or one in six people considered AROPE are living in VLWI households but are not materially or socially deprived and not below the 60% median income threshold.

However, it is worth noting that the combination of the components is very similar for the old and the revised AROPE measures. Table 7 shows that the difference between each similar combination of components ranges between zero and less than 1%, indicating that the revised AROPE measure did not affect the overall pattern of poverty experience as measured with the old AROPE measure.

Table 7: Components of people AROPE according to 2020 and 2030 strategy measures (%), SILC 2015–2020

	2015	2016	2017	2018	2019	2020
AROPE 2020						
AROP & SEVDEP & VLWI	2.3	2.5	1.9	1.2	1.5	1.1
SEVDEP & VLWI not AROP	2.0	1.3	1	0.9	0.9	1.0
AROP & VLWI not SEVDEP	5.9	6.3	5.8	4.9	3.8	3.2
AROP & SEVDEP not VLWI	1.0	0.8	0.6	1	1.1	0.6
AROP only	7.0	7.2	7.4	7.8	6.7	8.9
VLWI only	4.8	4.2	4.3	3.4	4.7	3.8
SEVDEP only	3.2	2.1	1.7	1.8	1.9	1.5
Total	26.2	24.4	22.7	21	20.6	20.1
AROPE 2030						
AROP & SEVDEP & VLWI	2.4	2.5	1.9	1.4	1.9	1.0
SEVDEP & VLWI not AROP	1.5	1.3	1.2	0.9	0.8	0.9
AROP & VLWI not SEVDEP	6.4	7.0	6.4	5.4	3.9	3.7
AROP & SEVDEP not VLWI	0.7	0.5	0.4	0.7	0.9	0.7
AROP only	6.6	6.8	6.9	7.5	6.5	8.4
VLWI only	5.4	4.1	4	3.4	4.9	3.9
SEVDEP only	2.3	1.6	1.6	1.5	1.7	1.5
Total	25.3	23.8	22.4	20.8	20.6	20.1

Source: Eurostat ilc_pees01 and ilc_pees01n. Note: SEVDEP – severe material deprivation

5.3 Consistent poverty and AROPE

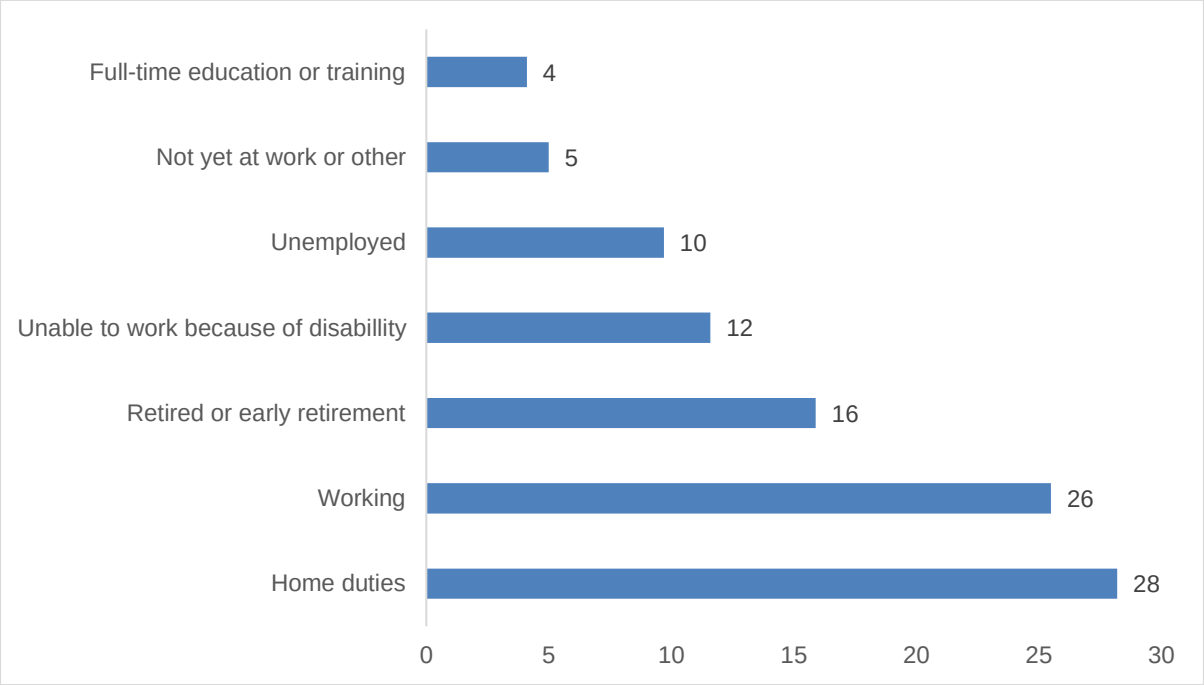
The EU AROPE measures are different from most common indicators in the Irish context. In Ireland one of the key national headline poverty indicators is the consistent poverty measure, which is based on the overlap between being at risk of poverty and being materially deprived (lacking two or more deprivation items). This means that the Irish consistent poverty measure takes an intersection approach, as opposed to the union approach of the AROPE measure. In this section, we describe to what extent the consistent poverty measure and the AROPE 2020 measure identify similar shares of the population.

As might be expected based on the different approaches, the share of people that would be considered at risk of poverty or social exclusion is higher for the AROPE than for the Irish consistent poverty measure. Moreover, most of those that are counted in the consistent poverty measure would also be counted in the AROPE: over nine out of ten people who were consistently poor were also AROPE in 2019.[32] However, those who are counted by the AROPE are not necessarily considered to be consistently poor: just over a quarter are also in consistent poverty.

To get some insights into which groups may be captured by the EU AROPE measure but not by the Irish consistent poverty measure, Figure 2 presents the principal economic status of the head of household of people that were AROPE in 2020 but not in consistent poverty in 2019. Of the group of people identified by the AROPE 2020 but not by the Irish consistent poverty measure, most listed home duties as their principal economic status, followed by working (among those, 78% were employees and 15% were self-employed). Also, a substantial proportion indicated that they were retired or unable to work due to a disability. Overall, almost three-quarters of those AROPE but not in consistent poverty are living in a household where the head of household is inactive, highlighting again the strong role of the VLWI in the AROPE measure.

[32] About one in ten people that are considered consistently poor are not counted in the AROPE, which may be surprising given that the consistent poverty measure uses an intersection approach while the AROPE uses a union approach. The proportion that is consistently poor but not AROPE is due to the differences in the AROP and deprivation measures used respectively. The Irish measure of consistent poverty is, for example, based on a different equivalence scale (see Chapter 2) and different deprivation items (see the Glossary) and corresponding threshold.

Figure 2: Principal economic status of the head of household of people that are AROPE 2020 but not in consistent poverty, 2019 (%)



5.4 Summary

In this chapter we explored the overlap between the old and new AROPE measures. The results suggested that the two measures are remarkably similar in terms of the overall rates, the patterns across certain risk groups and the individual components and their combinations.

We additionally investigated the overlap between the old AROPE and the Irish consistent poverty measure. We found that most of those who were considered consistently poor were also AROPE, but that those who were AROPE were not always consistently poor. This difference is likely due to their different approaches to measuring multidimensional poverty, but may also partly be related to the inclusion of the VLWI component in the AROPE.

Chapter 6: Conclusions

6.1 Introduction

The Irish government presented a detailed strategy to tackle poverty and promote social inclusion in the Roadmap for Social Inclusion 2020–2025. The Roadmap included a variety of aims and identified a number of specific indicators to monitor Ireland's progress in relation to these larger aims and goals. Monitoring progress on good and relevant indicators is important because it can help to inform policymakers as to whether their policies are doing what they are intended to do or if any changes should be considered.

This report set out to present an overview of Ireland's progress on the social inclusion goals and targets against a backdrop of major national and international challenges, including the COVID-19 pandemic, Brexit and increasing costs of living. These adverse circumstances undoubtedly had an impact on people's lives and posed a risk of increasing poverty and social exclusion. Besides, the COVID-19 pandemic directly impacted on the way survey data were collected, which, combined with planned changes to the SILC processes, makes it difficult to directly compare indicators in the period from 2018 to 2021.

In addition to an overview of Ireland's progress on the indicators, the report provides a review of the chosen indicators. In each section, we first presented Ireland's current performance on these indicators and briefly commented on how these numbers related to the 2018 numbers and the 2025 target. We then discussed the advantages and limitations of each of the indicators, and, where relevant, proposed additional or alternative indicators. Finally, in a separate chapter, we explored the effect of the recent modifications to the AROPE measure by comparing the rates of the old and the new measures and by examining the overlap between the 2020 AROPE and the Irish measure of consistent poverty.

6.2 EU monetary indicators

Chapter 2 focused on the monetary EU indicators. It presented the progress (or regress) that was made on each of these indicators and considered some of their

advantages and limitations (see Table 1 for a complete overview). Despite the far-reaching effects of the COVID-19 pandemic, at least some progress was made on all monetary EU indicators apart from the AROP rate before social transfers and the AROPE rate for people with disabilities.

Most chosen indicators were useful, yet it remains important to keep their weaknesses in mind, and often they could be complemented by additional measures. Among the main advantages of the indicators identified in the Roadmap were that they were convenient, well-managed and harmonised, and designed to allow for comparisons across EU countries. However, it became clear that they were not always best suited to the national context. As previous research has also noted, the Irish consistent poverty measure may, for example, be a better indicator than the European AROPE measure, which includes the VLWI indicator that has several conceptual shortcomings. Moreover, because they were fixed at the European level and managed by Eurostat, there was little flexibility in their design and cross-tabulation and the delivery time of the Eurostat statistics or the availability of the microdata.

6.3 EU non-monetary indicators

Chapter 3 considered the non-monetary EU indicators. We showed Ireland's progress (or regress) in these indicators and evaluated them (see Table 3 for an overview). Progress was also made on several non-monetary indicators, though not on all. There were, for example, improvements in terms of the housing cost overburden rate and the share of children receiving formal childcare, but slight regressions for the overcrowding rate and self-reported health, which may have been related to the impact of the pandemic.

The main advantages and limitations of the non-monetary EU indicators were often similar to the strengths and weaknesses of the monetary EU indicators. Their main advantage remains that they are accessible, well established and comparable across EU countries, while their disadvantage is that they are relatively inflexible and harder to adapt to national needs and interests and to accurately reflect people's experiences. The unmet healthcare needs due to cost rate is, for example, extremely

low, while this may not correctly capture the number of people unable to access healthcare. Moreover, the EU indicators mostly consider progress relative to other EU countries, even though the Roadmap includes an absolute level target as well for each indicator. Nevertheless, absolute levels are at least equally important and may better reflect the experience of people in a country. Finally, some of the non-monetary EU measures proposed in the Roadmap are not available on a regular basis, thereby creating the need for suitable adequate alternatives.

6.4 Irish indicators

Chapter 4 looked at Ireland's progress regarding the national target levels for 2025 and evaluated the national indicators (see Table 4 for an overview). The recorded performance on the national indicators shows that some progress was made. Notably, the consistent poverty rate, the national headline target for poverty reduction, went down from 5.6% in 2018 to 4.0% in 2021.Yet greater improvements on all national indicators are still needed to meet the specified targets by 2025.

While a focus on standard EU metrics has clear advantages, including the facilitation of standardised independent and reliable reporting of policy performance and the ranking of EU states, this approach does not give direct insights into absolute levels of poverty and social exclusion, and might thus miss aspects of poverty that are more context-specific. Therefore, the inclusion of the national indicators is crucial. Nevertheless, some national indicators need to be refined. It would, for example, be more meaningful to set the target for the employment level of people with a disability in relative terms (i.e. in terms of the gap between those with and without a disability). Besides, several national indicators could be added to track progress in other relevant areas, such as energy poverty.

6.5 Comparing the AROPE measures and consistent poverty

Chapter 5 compared the 'old' (EU2020) AROPE and the 'new' (EU2030) AROPE measures. While the methodology used for the severe deprivation and VLWI components is different in each AROPE measure, the overall prevalence of AROPE is very similar on both measures. This is true also when comparing the risk pattern of

AROPE across age groups and household types. This indicates that the two AROPE measures are capturing the same set of vulnerable people. Finally, the analysis of the relationship between the Irish consistent poverty measure and AROPE showed that almost all of those that are consistently poor are also AROPE.

6.6 Summary

In the Roadmap for Social Inclusion 2020–2025, the Irish government set up a substantial number of ambitious social inclusion targets to achieve in a very short period of time and across many dimensions. To monitor the progress achieved, several European and national indicators were identified. This report presents an overview of Ireland's progress on the social inclusion goals and targets and provides a review of the poverty indicators, with several suggestions for alternative or additional indicators. It also explores the relationship between the old and new AROPE measures and the Irish measure of consistent poverty.

Of the indicators that were identified to track progress on the social inclusion targets, most were both useful and meaningful. Nevertheless, it is important to underline that not all indicators are equally important. Some of the indicators, such as the consistent poverty rate, are well established and connected to higher-level goals, whereas others, such as the health indicators, are more instrumental. Moreover, as the review of the indicators in this report shows, the current set of indicators has several measurement issues (see Table 8 for an overview). The current indicators of housing adequacy, for example, do not seem to capture the current challenges faced by some people, particularly those who rent in the private market. It is therefore important to consider carefully how the monitoring of the poverty and social inclusion targets in Ireland can be improved and to continue to assess whether the chosen indicators are still adequate and sufficient.

Table 8: Overview of the measurement issues of the current 22 indicators

Indicator	Measurement issue
Monetary EU indicators	
The share of people who are at risk of poverty or social exclusion (AROPE)	• A revised version of the AROPE measure is used for the EU 2030 strategy. • VLWI component limited by age, and includes causes of poverty in indicator.
The income quintile share ratio	• Complement with a measure that considers the entire income distribution, such as the Gini coefficient.
The share of people who are at risk of poverty before social transfers and after social transfers	• Useful for understanding the effectiveness of social protection. • Could be presented separately for relevant vulnerable groups.*
The share of people who are at risk of poverty anchored in 2017	• Eurostat no longer publishes results based on 2017. • Could use national AROP rates anchored in time.
The in-work AROP rate	• Does not include people who worked less than seven months (continuously or intermittently), which may be associated with lower paid and precarious work.
The AROPE rate for children under 18 years of age and for people with disabilities	• Most useful when combined with a measure of AROPE before social transfers • Other vulnerable groups could be included, such as lone parents.*
Non-monetary EU indicators	
The housing cost overburden rate	• Consider additional or alternative measures, such as the AROP after housing costs are deducted.
The overcrowding rate	• The overcrowding rate tends to be very low and may not be the most informative indicator of housing disadvantages in the Irish context. • Explore the feasibility of a new housing adequacy measure
The share of the population who report their health as either good or very good	• Common and meaningful measure for national use, but can be problematic for international comparisons. • Can be influenced by cultural and personal differences.
The share of the population reporting unmet health care needs due to cost/expense	• Established measure but may not accurately reflect people's experiences. • Investigate the reasons behind the low rate in the SILC data and explore alternative data sources.
The share of the population living in households with very low work intensity	• Meaningful measure but should not take account of working-age people with disabilities in the calculation due to the high proportion of non-working people with disabilities in Ireland.
The share of children receiving formal childcare	• Only reflects the share of children above the age of three and does not explicitly measure affordability. • Include an indicator of the gap in formal care enrolment between higher and lower income groups.
The share of the population suffering severe material deprivation	• Investigate potential breakdown by vulnerable groups (lone parents, people with disabilities).
Active citizenship rate and participation in formal voluntary work	• Switch to a data source that allows for more regular tracking of progress. • The ESS provides possible alternative measures. • Newer rounds of the ESS will include a measure on volunteering.
National indicators	
The share of the population in consistent poverty	• N/A

Maintain the ambition to lift over 70,000 children (aged 0–17 years) out of consistent poverty by 2020	• Formulate the target based on an agreed percentage rather than a number. • Update target for post-2020.
Increase the employment level of people with a disability as measured by Census data, over two census periods	• Switch to a data source that allows for more regular tracking of progress. • Set a more ambitious goal, for example in line with the EU average. • Formulate the target in terms of the gap to the employment level of people without disabilities. • Formulate targets in relative (i.e. the gaps between groups) rather than absolute terms.
Continue to improve retention rates at second level in DEIS schools in order to reach the national norm (currently 91.6%)	• Possibly compare retention rates across relevant groups rather than between DEIS and non-DEIS schools.
Deliver 50,000 new social homes through build, refurbishment, acquisition and leasing, with the delivery of 12,000 additional social housing homes annually thereafter	• Include information about the demand for new social homes in addition to numbers about the supply. • Add an indicator that measures the prevalence of rent subsidies.
Not included in the 2018 report	• Include measures to monitor food and energy poverty.

Note:.The Roadmap also included the share of people who are at risk of poverty anchored in 2017. However, this is not part of the official statistic that is regularly reported by Eurostat in its publications and has also not been included in the most recent Progress Report of the Roadmap for Social Inclusion 2020–2025: Ambition, Goals, Commitments.
* More detailed statistics are usually not readily available from Eurostat but can be calculated using the microdata.

In the Roadmap significant attention was paid to standard EU metrics, one of the main aims being to place Ireland in a top-ranking position compared to other EU countries. The rationale behind this approach was that it would (a) facilitate standardised independent and reliable reporting of policy performance, (b) recognise that Ireland's ability to reduce poverty and social exclusion was strongly linked to the performance of other EU states, and (c) reflect that policies are framed within the context of EU-wide initiatives and rules, and that Ireland's progress is thus best demonstrated as compared with other EU states. While the current report focused on Ireland's absolute performance on these indicators, it is worth noting that an upcoming report will specifically focus on how Ireland currently compares to other EU countries.

Acknowledging the advantages of the approach of setting most target levels based on EU metrics, there are also clear limitations to a focus on EU indicators and country rankings. One major disadvantage is that rankings say very little about the absolute levels of poverty and social exclusion, while these are clearly relevant to people's experiences. An overreliance on EU indicators risks missing facets of

poverty and social exclusion that are more context-specific. Moreover, rankings are dependent on how other countries perform. If an increasing number of people is at risk of poverty and social exclusion in other EU countries, Ireland's ranking could improve even if absolute levels in Ireland were stable or even increased slightly (but at a lower rate). It therefore remains of key importance to regularly evaluate whether EU indicators are suitable for the Irish context and to complement them with a range of relevant national indicators.

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Glossary

At-risk-of-income-poverty thresholds: income thresholds derived as proportions of median income. These are based on the household income adjusted for household size and composition (referred to as equivalised income). A household at risk of income poverty has an adjusted (or equivalised) income below 60% of the median adjusted household income. The at-risk-of-income poverty rate takes account of household income from all sources, number of adults and number of children in the household. There are some minor differences in the income concept and the equivalence scale between the Irish and EU measures of at risk of income poverty.

At risk of income poverty: a term used at EU level to denote whether a household's income falls below 60% of median income threshold. It is also known as income poverty.

At risk of income poverty or exclusion: this EU measure combines the number of people who experience risk of income poverty or severe material deprivation or low work intensity. This measure is the basis for the Europe 2020 income poverty target. In cases where people experience more than one of these indicators, they are counted only once. The Irish version of this measure is the combination of at risk of income poverty and basic deprivation.

Basic deprivation (Irish measure): people who are denied – through lack of income – at least ***two items or activities on this index/list of 11*** are regarded as experiencing relative deprivation. This is enforced deprivation as distinct from the personal choice not to have the items. Eleven basic items are used to construct the deprivation index:

- unable to afford two pairs of strong shoes
- unable to afford a warm waterproof overcoat
- unable to afford new (not second-hand) clothes
- unable to afford a meal with meat, chicken or fish (vegetarian equivalent) every second day
- unable to afford a roast joint or its equivalent once a week
- without heating at some stage in the last year through lack of money
- unable to afford to keep the home adequately warm
- unable to afford to buy presents for family or friends at least once a year
- unable to afford to replace any worn-out furniture
- unable to afford to have family or friends for a drink or meal once a month
- unable to afford a morning, afternoon or evening out in the last fortnight for entertainment.

The indicator **of basic deprivation** was developed by the Economic and Social Research Institute using data from the *Survey on Income and Living Conditions*. See Maître B., Nolan B. and Whelan C.T. (2006) *Reconfiguring the Measurement of Deprivation and Consistent Income poverty in Ireland*, Dublin: ESRI, for further information on the indicator.

Consistent income poverty: a measure of income poverty used in the *National Action Plan for Social Inclusion 2007–2016* (*NAPinclusion*) that takes account of the household's living standards as well as the household size, composition and total income. A household is consistently poor if the household income is below the at-risk-of-income-poverty threshold (see above) and the household members are deprived of **at least 2 out of the 11 items** on the basic deprivation list.

Correlation: a correlation between two variables refers to a statistical relationship of dependence between these variables. This relationship of dependence can be measured by a correlation coefficient. There are many correlation coefficients and the best known is the Pearson correlation coefficient, which measures the strength of the linear relationship between two variables.

Deprivation: see definition of **basic deprivation** above for measure of deprivation used in the *NAPinclusion*.

Economic vulnerability: a measure of the economic situation of a household based on whether it is at risk of income poverty, experiences enforced basic deprivation and has difficulty making ends meet.

Employment rate: the proportion of the working-age population that is employed. The International Labour Organisation (ILO) definition of employed persons is those aged 15 years and over who have worked for payment or profit in the reference week (usually the week preceding the survey) or who had a job from which they were temporarily absent for reasons such as holidays, maternity leave or sick leave.

Equivalence scales: a set of relativities between the needs of households of differing size and composition, used to adjust household income to take into account the greater needs of larger households. In Ireland the national scale attributes a weight of 1 to the first adult (aged 14+) and 0.66 to each subsequent adult, and a weight of 0.33 to each child. International comparisons such as the one done by Eurostat use the modified OECD scale, which attributes a weight of 1 to the first adult (aged 14+) and 0.5 to each subsequent adult, and a weight of 0.3 to each child.

Equivalised income: household income from all sources adjusted for differences in household size and composition (number of adults and children). It is calculated by dividing total disposable (i.e. after-tax) household income by the equivalence scale value. It can be interpreted as income per adult-equivalent.

EU-SILC: *European Union Statistics on Income and Living Conditions*; a voluntary household survey carried out annually in a number of EU member states allowing comparable statistics on income and living conditions to be compiled. In Ireland, the Central Statistics Office (CSO) has conducted the survey since 2003. The results are reported in the Survey on Income and Living Conditions (SILC). Any data compiled by Eurostat and any reference to the questions or questionnaire in the household survey are here referred to as 'EU-SILC'.

Gini coefficient: a measure of inequality that ranges between 0 and 100 per cent. It is the relationship between cumulative shares of the population arranged according to the level of income and the cumulative share of total income received by them. If there was perfect equality (i.e. each person receives the same income), the Gini coefficient would be 0 per cent. A Gini coefficient of 100 per cent indicates total inequality (the entire national income was in the hands of one person).

Household: usually defined for statistical purposes as either a person living alone or a group of people (not necessarily related) living at the same address with common housekeeping arrangements – that is, sharing at least one meal a day or sharing a living room or sitting room.

Household equivalent (or equivalised) income: household income adjusted to take account of differences in household size and composition by means of equivalence scales.

Lone parent: a parent who has primary custody of a dependent child and is not living with the other parent.

Material deprivation (EU2020): one of the European Commission's common indicators on social protection and social inclusion. It measures the proportion of the population that cannot afford at least three of the following nine items:

- mortgage or rent payments, utility bills, hire purchase instalments or other loan payments
- one week's annual holiday away from home
- a meal with meat, chicken, fish (or vegetarian equivalent) every second day
- an unexpected financial expenses (set amount corresponding to the monthly national at-risk-of-income-poverty threshold of the previous year)
- a telephone (including mobile phone)
- a colour TV
- a washing machine
- a car
- heating to keep the home adequately warm.

Material deprivation (EU2030): this revised indicator is one of the European Commission's common indicators on social protection and social inclusion. It is based on 13 items related to deprivation at

both the household and the individual level, and measures the proportion of the population lacking at least seven of the 13 items. The seven household deprivation items relate to the household's inability to:

- face unexpected expenses
- afford one-week annual holiday away from home
- avoid arrears (in mortgage, rent, utility bills and/or hire purchase instalments)
- afford a meal with meat, chicken or fish or vegetarian equivalent every second day
- afford keeping their home adequately warm
- have access to a car/van for personal use
- replace worn-out furniture.

The six personal deprivations (collected for all persons aged 16 and over) are the person's inability to:

- replace worn-out clothes with some new ones
- have two pairs of properly fitting shoes
- spend a small amount of money each week on him/herself ('pocket money')
- have regular leisure activities
- get together with friends/family for a drink/meal at least once a month
- have an internet connection.

Mean: the average value (for example, the average income in a sample obtained via household survey).

Median: the value that divides a sample in half (e.g. the income level above and below which half the people in a sample fall).

Income poverty and social exclusion: these terms are defined broadly in the *National Action Plan for Social Inclusion 2007–2016 (NAPinclusion)* as follows:

> People are living in income poverty if their income and resources (material, cultural and social) are so inadequate as to preclude them from having a standard of living which is regarded as acceptable by Irish society generally. As a result of inadequate income and resources people may be excluded and marginalised from participating in activities which are considered the norm for other people in society.

The two concepts are very similar when used in Irish policymaking, but income poverty is sometimes used in the narrower context to refer to low income (or wealth). On the other hand, social exclusion is almost always used in the broader sense, to refer to the inability to participate in society because of a lack of resources that are normally available to the general population.

Income poverty gap: the shortfall in incomes for those who fall below the at-risk-of-income poverty threshold.

Quintile: one-fifth of a sample divided into five equal parts to show how income, for example, is spread throughout the population; each quintile represents where a person's or household's income is located, ranging from the bottom quintile (lowest fifth or 20 per cent) to the top quintile (highest fifth or 20 per cent).

Severe material deprivation: this EU indicator measures the proportion of the population lacking at least four of the nine items listed in the EU index of material deprivation (see definition above).

SILC: in Ireland, the Central Statistics Office (CSO) is responsible for carrying out the SILC survey. It produces analysis in accordance with Irish national income poverty targets, indicators and related issues. These results are reported in the Survey on Income and Living Conditions (SILC). Any data on Ireland that is sourced specifically from the CSO is here referred to as 'SILC'.

Social welfare transfers: cash receipts paid from various social welfare schemes received by the individual or household.

Well-being: ‘a positive physical, social and mental state. It requires that basic needs are met, that individuals have a sense of purpose, that they feel able to achieve important goals, to participate in society and to live lives they value and have reason to value. Well-being is enhanced by conditions that include financial and personal security, meaningful and rewarding work, supportive personal relationships, strong and inclusive communities, good health, a healthy and attractive environment, and values of democracy and social justice’ (NESC, 2009, p. 3).