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Veröffentlichungsversion / Published Version
Zeitschriftenartikel / journal article

**Empfohlene Zitierung / Suggested Citation:**
O'Higgins, N., & Brockie, K. (2024). The Youth Guarantee, Vulnerability, and Social Exclusion Among NEETs in Southern Europe. *Politics and Governance*, *12*. https://doi.org/10.17645/pag.7469

Politics and Governance
2024 • Volume 12 • Article 7469
https://doi.org/10.17645/pag.7469

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Open Access Journal

# The Youth Guarantee, Vulnerability, and Social Exclusion Among NEETs in Southern Europe

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**Submitted:** 31 July 2023 **Accepted:** 14 October 2023 **Published:** 31 January 2024

**Issue:** This article is part of the issue "Active Labour Market Policies and Youth Employment in European Peripheries" edited by Francisco Simões (ISCTE—University Institute of Lisbon) and Jale Tosun (Heidelberg University), fully open access at https://doi.org/10.17645/pag.i378

## Abstract

Young people neither in employment, education, or training (NEETs) are particularly vulnerable to social and economic exclusion. Indeed, recognition of this fact was a key motivating factor underlying the development of the Youth Guarantee. This article uses data from the EU Labour Force Survey and EU Statistics on Income and Living Conditions to examine how the characteristics of the NEET population and their associated vulnerability to social exclusion vary across different sub-groups of young NEETs and how this has changed in Italy, Portugal, and Spain since 2015. The analysis focuses on the determinants of NEET status, youth vulnerability to poverty and social exclusion, and also examines the propensity of young NEETs to engage with public employment services in order to assess the extent to which young people most at risk of social exclusion are within the purview of the Youth Guarantee's activities. The article highlights how the composition and vulnerability of young NEETs have altered between 2015 and 2021. While the risks of poverty and social exclusion of long-term unemployed NEETs have remained unchanged since 2015, the vulnerability of the most at-risk subgroup of young people, those who are NEET due to family responsibilities, has become more pronounced. Moreover, the engagement with public employment services of the most at-risk NEET sub-groups has remained persistently low. The findings suggest that greater efforts are needed to remove the obstacles to labour market re-integration faced by the most vulnerable groups within the purview of the programme and, above all, young women with family responsibilities.

## Keywords

family responsibilities; NEET; social exclusion; Youth Guarantee; youth labour markets; youth unemployment

## 1. Introduction

The launch of the Youth Guarantee (YG) in 2013, under which EU member states committed to providing young people not in employment, education, or training (NEET) with quality educational, training, and employment opportunities (Council Recommendation of 22 April 2013, 2013) considerably broadened the scope of youth employment policy. Its focus on the NEET population explicitly targeted all young people who were not employed or studying, not just those amongst them who were actively seeking work. Initially covering young people aged 15–24, in 2020, all EU countries further committed to the implementation of a reinforced YG to support young NEETs under 30 in this group (Council Recommendation of 30 October 2020, 2020). The YG was based on the explicit aim to prevent the long-term social exclusion of young people, resting on the recognition that many young people who are not actively seeking work are at greater risk of social exclusion than many who are.

Young NEETs are a highly heterogeneous group, with extremely diverse characteristics and differing needs in terms of supporting their successful integration into the labour market. Recognition of this diversity is an important element in designing appropriate interventions and has also led to the concept itself being criticised as a basis for intervention (Furlong, 2006). The diversity of NEETs also applies to their vulnerability to social and economic exclusion, which is likely to vary, not just across "types" of NEET but also over time and space. Acknowledging the diversity of NEET youth, this article examines the relationship between NEET status, vulnerability to poverty and social exclusion, and interactions with public employment services (PES) through which the YG's interventions are accessed.

The article examines trends and characteristics of young NEETs in Italy, Spain, and Portugal from 2015 to 2021. Using data from the EU Labour Force Survey (EU-LFS), it disaggregates the NEET population into the seven subgroups proposed by Eurofound and analyses the changing relationship between different forms of NEET and individual characteristics. Cross-sectional EU Statistics on Income and Living Conditions (EU-SILC) data is used to identify the subgroups of young NEETs most at risk, using the Eurostat concept of "at risk of poverty and social exclusion" (AROPE) as the basis of analysis of youth vulnerability. Descriptive statistics are complemented by probit and multinomial logit models to explore how youth vulnerability associated with different subgroups of NEET evolved over time in the three countries. Throughout the time period considered, the YG was in operation and the article also examines the extent to which different subgroups of NEET youth vary in their interaction with PES, through which the YG was accessible to young people. Again, descriptive statistics and probit models explore the degree to which vulnerable groups of NEET youth have been accessing the mechanism delivering the YG from 2015 to 2021.

The three countries examined here—Italy, Spain, and Portugal—have all been identified as belonging to the Mediterranean/sub-protective school-to-work transition regime (Hadjivassiliou et al., 2018; Pohl & Walther, 2007). Youth labour markets in these countries have traditionally been characterised by age-based dualism with a relatively lengthy school-to-work transition, high rates of youth unemployment and NEET, along with a high degree of labour market precarity and temporary employment amongst the young. In fact, in 2013 when the YG was established, NEET rates for 15–29-year-olds in Italy, Portugal, and Spain stood at 26.0%, 16.4%, and 22.5% respectively, all above the EU27 average of 16.1% (Eurostat, 2023).

Between 2013 and 2019, following the introduction of the YG, two clear shifts occurred in NEET rates in EU countries as a whole. First, NEET rates fell significantly, by 3.5 percentage points (p.p.) on average. Second,

this reduction was entirely attributable to a reduction in youth unemployment, and the share of young people who were NEET and outside the labour market remained unchanged at 7.8%. The three countries considered in this study broadly conform to this pattern. NEET rates in all three countries decreased more than the EU average, albeit to varying extents. In Portugal and Spain, NEET rates fell by over 7 p.p. while in Italy, at 3.8 p.p., the fall was closer to the EU27 average. The cross-country differences in the share of the youth population accounted for by NEETs who were outside the labour force are substantial, while changes over time were relatively modest. Over the period, in Italy, the share fell by 1.0 p.p. (from 15.0 to 14.0%) and in Portugal by 0.9 p.p. (from 5.3 to 4.4%), while in Spain the share increased slightly from 5.9 to 6.2% (Eurostat, 2023). Despite increases witnessed during the Covid-19 pandemic, by 2022 all three countries had managed to reduce NEET rates among 15–29-year-olds to below their 2019 rates. At this time only Italy had a NEET rate which, at 19.0%, was significantly above the EU27 average of 11.7% (Eurostat, 2023).

This does not imply that the YG caused these falls in youth unemployment, and hence NEET rates, but it also does not contradict the notion that the YG may have contributed. A plot of the ratio of NEET rates amongst 15–29-year-olds—the target age group of the YG in the three countries under consideration—to the NEET rates of 30–34-year-olds who did not directly benefit from the programme, illustrates the relative strength of the downward time trend for 15–29-year-olds (Figure 1). On average, between 2013 and 2022 the NEET rates of this age group decreased proportionately more than the NEET rates of 30–34-year-olds did. This was especially true of the three Southern European countries under study, but a more moderate downward trend is also visible for the EU as a whole. This is a simplistic comparison which certainly does not demonstrate a causal link between the implementation of the YG and falling NEET rates, but it is consistent with it. Of more relevance to what follows, however, is the fact observed above that falling NEET rates were entirely attributable to reductions in youth unemployment and not to any reduction in the numbers of young NEETs who were outside the labour force who, as we shall demonstrate, have become increasingly vulnerable to social exclusion relative to young unemployed NEETs.

The purpose of this article is not to undertake an impact evaluation of the YG and it does not attempt to assess the direct effect of the YG on youth NEET rates. Rather, the article uses the time frame of implementation of the YG as context for drawing together the changing nature of youth NEET populations and the degree to which the most vulnerable young people are falling within the purview of policy responses, over this period where young NEETs have become a policy priority of EU member states.

Restricting attention to the period and countries under study, between 2015 and 2021 NEET rates decreased in all three countries: by 2.6 p.p. in Italy, 3.7 in Portugal, and 4.6 in Spain. For Italy and Portugal but not for Spain, these reductions were slightly larger than the corresponding falls in the NEET rates of 30–34-year-olds which were 2.0, 2.1, and 5.2 p.p. respectively. As already observed, these reductions in NEET rates were driven primarily by significant reductions in youth unemployment, while the number of young NEETs who were outside the labour force remained relatively constant.

The analysis presented here first confirms that, for all three countries under study, and in line with the findings in the wider literature, the probability of being NEET increases with age, falls with educational attainment, and is higher amongst migrants than amongst native-born young people. Moreover, the differences in the probability of being NEET between less and more educated young people widened between 2015 and 2021 in Italy and Portugal.

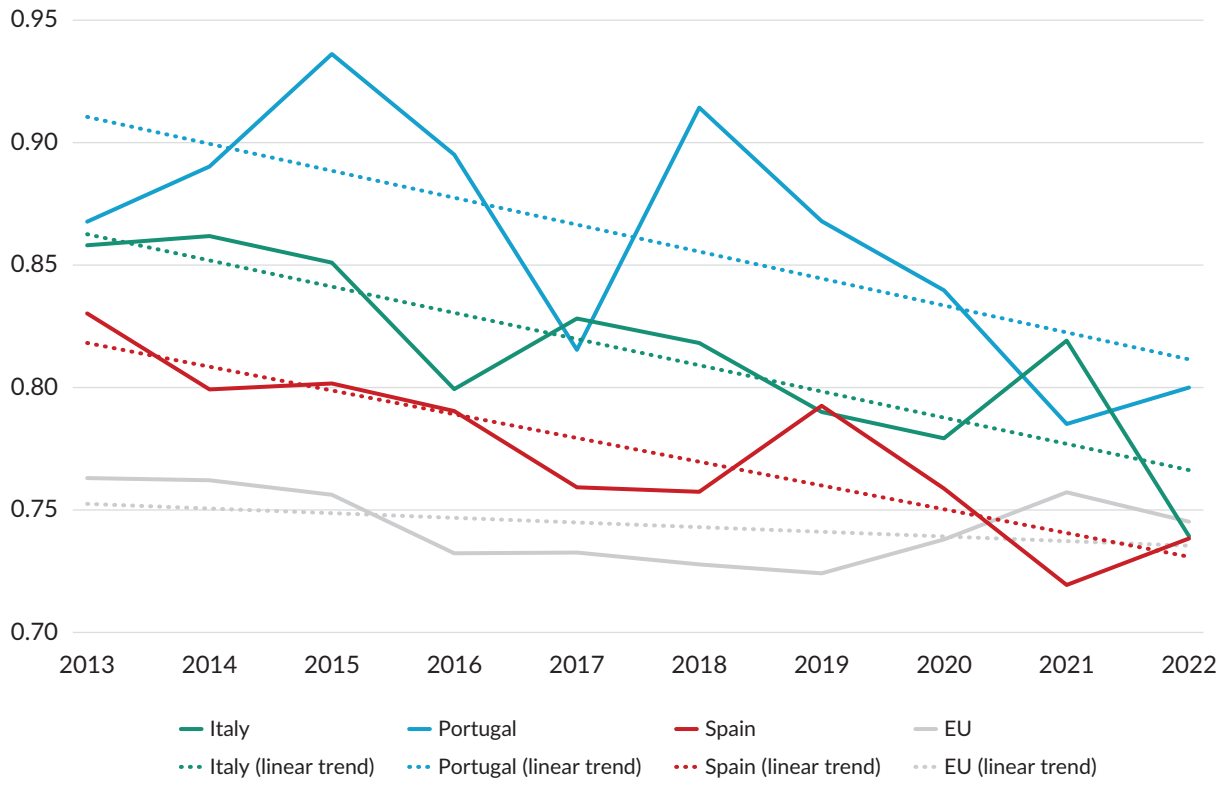


**Figure 1.** Ratio of NEET rates of 15–29-year-olds to the NEET rates of 30–34-year-olds in the EU, Italy, Portugal, and Spain, between 2013 and 2022. Source: Calculated from NEET rates reported in the Eurostat (2023) database.

The analysis of the risk of poverty and social exclusion associated with different forms of NEET highlights that, while there is some cross-country variation, vulnerability to social exclusion is most pronounced in all three countries among young NEETs due to family responsibilities, who tend to be young women. Significant vulnerability, albeit to varying degrees, is also observable amongst the long-term unemployed and discouraged NEETs, as well as amongst young NEETs due to illness or disability. Over the lifetime of the YG, vulnerability has become more polarised and the relative disadvantage associated with being NEET due to family responsibilities increased. In contrast, the reduction in long-term unemployment, above all in Portugal and Spain, has been accompanied by a reduction in the vulnerability associated with it.

The registration rates of young NEETs with PES declined between 2015 and 2021 in Italy, Portugal, and Spain. There is, however, substantial variation in PES registration rates, both across NEET subgroups and across the three countries. PES registration is more likely among the unemployed, and being NEET due to family responsibilities, illness or disability, as well as other reasons is associated with a much lower probability of being registered. As registration with PES is the means through which young people can access the offering of the YG, the analysis suggests that more attention is needed to facilitate the access of young people in the most vulnerable subgroups of NEET to the support of the YG.

With countries currently revising their Youth Employment Strategies, following the extension of the YG in the wake of the Covid-19 pandemic, it is an opportune time to better understand how the NEET population has changed under the YG, who are the young people not engaging with the YG's offering, and which young

NEETs remain most vulnerable today. Further investigation is clearly needed. Cross-sectional datasets are limited in their ability to capture such dynamic and variable situations as NEET status and social exclusion, and longitudinal analysis of how diverse young NEETs experience vulnerability and engage in available interventions under the YG would shed further insight. However, it is evident from the analysis presented in this article that greater efforts are required to remove obstacles to educational and labour market participation of young people who are most vulnerable and furthest from it.

## 2. Theoretical Background

The share of young people who are not in employment, education, or training—the NEET rate—is straightforwardly defined by its title, comprising all young people aged 15–29 who are not working and not studying or in training. This includes the unemployed (excluding those who are also in education) plus all young people outside the labour market as traditionally defined, who are also not studying or in training (O'Higgins et al., 2023). The NEET rate is increasingly used as a proxy for the state of youth labour markets (Mascherini & Ledermaier, 2016). The concept has gained considerable traction in recent years, offering an internationally comparable indicator that captures a more diverse picture than the youth unemployment rate, reflecting different situations of young people both inside and outside the labour market (Furlong, 2006; Holte et al., 2019).

A recurring theme in discussions of the NEET concept regards the heterogeneity of the population it captures (Furlong, 2006; Mascherini & Ledermaier, 2016; O'Higgins et al., 2023). A prominent critique of the NEET concept is the merging of distinct groups of youth (Ralston et al., 2022). Young NEETs are by definition what they are *not* (Yates & Payne, 2006), and the population captured by its wide net is characterised by different barriers to engaging in the labour market. Diverse conditions, from local labour market demand to an individual's health to their household caring responsibilities, determine the extent to which education and employment opportunities are accessible to young people (Furlong, 2006). Identifying the varied conditions that lead to NEET status for this heterogeneous group of young people is a crucial step in developing appropriate policy interventions (MacDonald, 2011).

Responding to the recognition that the NEET concept's utility in policy requires a nuanced understanding of the factors underpinning it, the concept has been disaggregated. Mascherini and Ledermaier (2016) propose a seven-fold subcategorisation of the NEET population. This comprises three types of NEET who are actively participating in the labour market and four who are not. NEETs in the labour force include the short-term unemployed, the long-term unemployed, and re-entrants. NEETs outside the labour force are further categorised into discouraged workers, young people who are NEET due to family responsibilities, young people who are NEET due to illness/disability, and a final residual category of youth who are NEET due to other reasons (Mascherini & Ledermaier, 2016).

A key policy-relevant characteristic of NEET status is its duration dependence; being NEET today increases the likelihood of being NEET tomorrow (O'Higgins et al., 2023). Indeed, one of the explicit motivations underlying the development of the YG was to prevent the scarring of young people's longer-term prospects associated with long periods spent outside employment or education (Ralston et al., 2022). This concern with the long-term social exclusion of young people has been expressed in the initial formulation of the YG which was to ensure that "all young people…receive a good-quality offer of employment, continued

education, an apprenticeship or a traineeship within a period of four months of becoming unemployed or leaving formal education" (Council Recommendation of 22 April 2013, 2013).

Taken together, these considerations suggest that young NEETs are vulnerable to the adverse long-term social and economic effects of their current labour market status, and, at the same time, the degree of vulnerability to poverty and exclusion is likely to vary according to the subgroup of NEET (Mussida & Sciulli, 2023). In this context, a disaggregated approach to the NEET population is not only important to understanding the many drivers of NEET status, but also the varied degrees of vulnerability associated with it (MacDonald, 2011).

Moreover, although social exclusion can be a nebulous concept, it is very clearly a dynamic one (Atkinson & Hills, 1998). A number of analyses have emphasised the complex interrelation between poverty, unemployment, and social exclusion over time (e.g., Gallie et al., 2003). This has led naturally to the analysis of the trajectories of young people's experiences in and out of the labour market using longitudinal data in order to provide a more complete understanding of such dynamics (e.g., Berigel et al., 2023; Berloffa et al., 2018). The number of young people who are NEET (and who belong to any specific NEET sub-group) at any one time is the net outcome of inflows to and outflows from that state prior to that point in time. Analysing transitions between states can be an effective way of better understanding these dynamics. In this way, a more complete understanding of the nature of the relationships between social isolation, poverty, and labour market marginalisation as they evolve over individuals' lifetimes is possible.

The ambition here, however, is more modest and the focus slightly different. One implication of the persistence and mutual reinforcement of the drivers of vulnerability and social exclusion concerns the importance of early experiences for outcomes later in life. On this basis, we confine our attention to cross-sectional analyses and examine how the vulnerability associated with specific individual characteristics and states of being vary over time and space. Although this means we cannot study transitions, it does allow us to make use of much larger datasets and thus be more precise about the specific characteristics which are the focus of investigation. Our starting point is the hypothesis that vulnerability to exclusion is not just attributable in an immutable way to broadly identifiable groups within the NEET category but may also vary with the economic and institutional environment. Related recent work has drawn attention to the importance of sub-national regional variations in youth labour market outcomes (Cefalo & Scandurra, 2021; Scandurra et al., 2021). Here we apply cross-sectional methods to examine commonalities and differences in vulnerability observable amongst the different subgroups of young NEETs and how these have evolved over time in three countries which share some important institutional characteristics. We take as given the self-reinforcing nature of young people's status and examine the extent to which different sub-groups of NEET are at risk of poverty and social exclusion, and how, during the lifetime of the YG to date, this has evolved.

## 3. Data and Methodology

The analysis presented here uses cross-sectional micro-data from both the EU-LFS and the EU-SILC in order to shed light on the relationship between NEET subgroups, youth vulnerability, and registration of young people with the PES in Italy, Portugal, and Spain focusing on the period between 2015 and 2021. The data presented are weighted estimates reflecting the total population of the three countries included in the analysis. We explore the issues econometrically with binary probit and multinomial logit models. The results of the

probit models are presented as marginal effects and the results of the multinomial logit model as average marginal effects.

Four relationships are explored through descriptive statistics and simple econometric models. In particular:

- Probit models of the relationship between individual characteristics and the probability of young people being NEET;
- Multinomial logit models of the relationship between individual characteristics and NEET subgroup membership amongst young NEETs;
- Probit models of the relationship between NEET subgroup membership and individual vulnerability;
- Probit models of the relationship between NEET subgroup membership and registration with the PES.

In each case, the results of separate estimations are reported for each country and relevant time period. The purpose of the analysis is to identify associations between the phenomena of interest, rather than to unequivocally identify causality in these relationships. The variations over time, space, and individual characteristics which emerge allow policy-relevant inferences to be drawn on the nature of these relationships.

Young people include those aged 15–29 (inclusive) which corresponds to the target group of the YG in these countries. Young NEETs are defined as specified above and are further categorised into subgroups using the approach proposed by Eurofound (Mascherini & Ledermaier, 2016). In addition to NEET and its subgroups, the analysis includes a basic set of explanatory variables that have been found to be important determinants of NEET and which are also routinely collected by PES when young people register for the YG, specifically, sex, age, educational attainment, urban/rural location, and country of birth. Educational attainment is harmonised across countries using the International Standard Classification of Education (ISCED). Descriptive statistics of the youth population and their characteristics as reflected by the EU-LFS and EU-SILC samples used in the analysis are presented in Tables 1 and 2.

Vulnerability is identified using the Eurostat (2022a) AROPE indicator which is based on three criteria. The three dimensions comprise individuals who (a) live in households with low disposable income, (b) are experiencing severe material and social deprivation, and/or (c) live in households with a very low work intensity. Experiencing at least one of these dimensions of AROPE means that a young person is considered at risk of poverty or social exclusion. One important limitation of the EU-SILC data is that it does not allow the separate identification of discouraged workers who wish to work but have given up looking for it. Discouraged NEETs are subsumed into either short-term or long-term unemployment, dependent on the duration of their current period of not being in employment.

**Table 1.** Descriptive statistics of EU-LFS data.

| EU-LFS | Italy | | | Portugal | | | Spain | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2015 | 2019 | 2021 | 2015 | 2019 | 2021 | 2015 | 2019 | 2021 |
| Youth sample size | 79,982 | 74,250 | 66,396 | 24,076 | 21,055 | 17,550 | 15,501 | 13,394 | 13,366 |
| Youth characteristics (weighted percentage of youth population) | | | | | | | | | |
| In education | 45.9 | 46.1 | 46.0 | 47.3 | 45.2 | 50.2 | 47.5 | 47.9 | 50.2 |
| In employment | 28.7 | 31.9 | 31.2 | 39.5 | 45.7 | 40.3 | 33.7 | 37.8 | 35.6 |
| NEET | 25.4 | 22.0 | 22.8 | 13.2 | 9.2 | 9.5 | 18.8 | 14.3 | 14.2 |
| Short-term unemployed | 3.5 | 3.1 | 2.7 | 4.2 | 2.8 | 2.8 | 5.6 | 4.6 | 5.3 |
| Long-term unemployed | 6.6 | 4.4 | 4.1 | 4.2 | 1.8 | 2.0 | 7.0 | 2.6 | 2.7 |
| Reentrants | 0.5 | 0.5 | 0.6 | 0.2 | 0.2 | 0.3 | 0.7 | 1.2 | 0.4 |
| Discouraged | 3.9 | 2.8 | 1.1 | 1.0 | 0.9 | 0.4 | 0.5 | 0.3 | 0.4 |
| NEET due to family responsibilities | 3.3 | 3.3 | 3.0 | 0.8 | 1.1 | 0.5 | 2.1 | 2.3 | 0.8 |
| NEET due to illness/disability | 0.8 | 1.0 | 1.0 | 1.1 | 0.9 | 1.3 | 1.3 | 1.8 | 1.7 |
| NEET due to other reasons | 6.7 | 6.9 | 10.3 | 1.8 | 1.5 | 2.2 | 1.5 | 1.7 | 3.0 |
| Location | | | | | | | | | |
| Urban | 75.8 | 76.5 | 84.2 | 75.0 | 77.9 | 75.3 | 73.7 | 87.8 | 88.1 |
| Rural | 24.2 | 23.5 | 15.8 | 25.0 | 22.1 | 24.7 | 26.3 | 12.2 | 11.9 |
| Sex | | | | | | | | | |
| Male | 51.1 | 51.7 | 51.5 | 50.5 | 50.5 | 50.7 | 51.3 | 51.4 | 50.7 |
| Female | 48.9 | 48.3 | 48.5 | 49.5 | 49.5 | 49.3 | 48.7 | 48.6 | 49.3 |
| Age group | | | | | | | | | |
| 15–19 | 31.2 | 31.9 | 32.3 | 33.5 | 33.5 | 32.5 | 31.4 | 34.5 | 34.0 |
| 20–24 | 33.4 | 32.9 | 33.2 | 32.9 | 33.2 | 34.3 | 31.7 | 31.2 | 32.3 |
| 25–29 | 35.4 | 35.2 | 34.5 | 33.7 | 33.3 | 33.2 | 36.8 | 34.3 | 33.7 |
| Education level | | | | | | | | | |
| ISCED 0–2 | 41.5 | 40.2 | 40.0 | 44.3 | 37.6 | 30.6 | 43.2 | 38.1 | 39.7 |
| ISCED 3–4 | 47.2 | 46.6 | 45.8 | 37.6 | 42.2 | 42.8 | 32.2 | 34.8 | 34.0 |
| ISCED 5–8 | 11.4 | 13.2 | 14.2 | 18.1 | 20.2 | 26.6 | 24.6 | 27.2 | 26.3 |
| Place of birth | | | | | | | | | |
| Born in the country | 87.6 | 88.6 | 89.1 | 92.3 | 91.9 | 95.3 | 83.6 | 83.2 | 81.7 |
| Born outside the country | 12.5 | 11.5 | 10.9 | 7.7 | 8.1 | 4.7 | 16.4 | 16.8 | 18.3 |

Notes: When young people are both in employment and education, they are considered in the "in employment" category in accordance with the standard International Labour Organization approach to labour market indicators; similarly, NEETs exclude young people who are both unemployed and in education or training. Source: Calculated on weighted EU-LFS data for 2015, 2019, and 2021 (Eurostat, 2022b).

**Table 2.** Descriptive statistics of EU-SILC data.

| EU-SILC | Italy | | Portugal | | Spain | |
|---|---|---|---|---|---|---|
| | 2015 | 2021 | 2015 | 2021 | 2015 | 2021 |
| Youth sample size | 5,672 | 4,021 | 3,012 | 3,559 | 4,607 | 6,881 |
| Youth characteristics (weighted percentage of youth population) | | | | | | |
| In education | 34.7 | 36.2 | 40.2 | 41.7 | 44.1 | 45.8 |
| In employment | 31.9 | 33.6 | 41.6 | 46.1 | 32.6 | 37.8 |
| NEET | 33.5 | 30.1 | 18.2 | 12.2 | 23.3 | 16.4 |
| Short-term unemployed | 4.3 | 3.3 | 5.2 | 5.2 | 7.4 | 5.3 |
| Long-term unemployed | 12.8 | 9.8 | 9.0 | 4.5 | 12.9 | 6.3 |
| NEET due to family responsibilities | 6.4 | 3.0 | 0.9 | 0.3 | 0.8 | 1.5 |
| NEET due to illness/disability | 0.6 | 0.8 | 0.6 | 1.1 | 0.7 | 0.6 |
| NEET due to other reasons | 9.4 | 13.2 | 2.4 | 1.1 | 1.5 | 2.7 |
| Location | | | | | | |
| Urban | 81.3 | 83.0 | 75.2 | 77.9 | 72.3 | 88.9 |
| Rural | 18.7 | 17.0 | 24.8 | 22.1 | 27.7 | 11.1 |
| Sex | | | | | | |
| Male | 51.2 | 51.8 | 50.4 | 50.5 | 50.8 | 51.0 |
| Female | 48.8 | 48.2 | 49.6 | 49.5 | 49.2 | 49.0 |
| Age group | | | | | | |
| 15–19 | 26.5 | 27.6 | 28.1 | 27.9 | 26.8 | 29.3 |
| 20–24 | 35.6 | 35.7 | 35.5 | 36.6 | 36.0 | 35.9 |
| 25–29 | 37.9 | 36.7 | 36.4 | 35.5 | 37.2 | 34.9 |
| Education level | | | | | | |
| ISCED 0–2 | 29.9 | 31.3 | 44.4 | 26.6 | 42.5 | 29.5 |
| ISCED 3–4 | 53.5 | 51.2 | 38.0 | 47.3 | 33.6 | 38.6 |
| ISCED 5–8 | 16.6 | 17.5 | 17.6 | 26.2 | 23.9 | 31.9 |
| Place of birth | | | | | | |
| Born in the country | 88.8 | 89.1 | 91.9 | 93.8 | 85.2 | 82.3 |
| Born outside the country | 11.2 | 10.9 | 8.1 | 6.2 | 14.8 | 17.7 |

Source: Calculated on weighted EU-SILC data for 2015 and 2021 (Eurostat, 2022c).

## 4. Characteristics and Determinants of NEET Status

Factors associated with being NEET are summarised in a binary probit model where NEET = 1 (Table 3). We report the results separately by country, for three years (2015, 2019, and 2021). The probit models allow us to summarise the factors associated with NEET status and how these vary across time and country.

The main differences across individual characteristics concern age and educational attainment. Previous work has consistently found that the probability of being NEET increases with age and decreases with educational attainment, especially in high-income countries (e.g., O'Higgins et al., 2023). Also here, NEET rates (conditional on educational attainment) increase with age; however, it is worth observing that the

disparity between younger and older age groups has decreased between 2015 and 2021. The age-related gap is greatest in Italy. Similarly, (conditional on age) NEET rates decrease with higher levels of educational attainment. In contrast to age, the relative disadvantage associated with low educational attainment has increased between 2015 and 2021 in Italy and Portugal, and, although somewhat reduced, remains relatively high also in Spain. In 2021, controlling for other characteristics, the difference in the probability of being NEET between those with only basic education compared to those with tertiary qualifications is 9 p.p. in Portugal, 14 p.p. in Spain, and 19 p.p. in Italy.

**Table 3.** Probability of NEET status (marginal effects): 2015, 2019, and 2021.

| | Italy | | | Portugal | | | Spain | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2015 | 2019 | 2021 | 2015 | 2019 | 2021 | 2015 | 2019 | 2021 |
| Location | | | | | | | | | |
| Urban | (base) | | | (base) | | | (base) | | |
| Rural | –0.01* | 0.01* | –0.03* | 0.02* | 0.02* | 0.01* | 0.02* | 0.01* | –0.01* |
| Sex | | | | | | | | | |
| Male | (base) | | | (base) | | | (base) | | |
| Female | 0.03* | 0.05* | 0.05* | 0.03* | 0.02* | 0.01* | 0.02* | 0.02* | 0.00* |
| Age group | | | | | | | | | |
| 15–19 | (base) | | | (base) | | | (base) | | |
| 20–24 | 0.24* | 0.19* | 0.18* | 0.14* | 0.11* | 0.12* | 0.15* | 0.11* | 0.13* |
| 25–29 | 0.27* | 0.25* | 0.23* | 0.14* | 0.10* | 0.14* | 0.21* | 0.15* | 0.17* |
| Education level | | | | | | | | | |
| ISCED 0–2 | (base) | | | (base) | | | (base) | | |
| ISCED 3–4 | –0.09* | –0.11* | –0.09* | –0.04* | –0.05* | –0.06* | –0.18* | –0.15* | –0.12* |
| ISCED 5–8 | –0.15* | –0.17* | –0.19* | –0.06* | –0.06* | –0.09* | –0.20* | –0.17* | –0.14* |
| Place of birth | | | | | | | | | |
| Born in the country | (base) | | | (base) | | | (base) | | |
| Born outside the country | 0.06* | 0.04* | 0.06* | 0.04* | 0.03* | 0.04* | 0.05* | 0.05* | 0.07* |

Notes: * Marginal effects statistically significant at $p < 0.05$. Source: Calculated on weighted EU-LFS data for 2015, 2019, and 2021 (Eurostat, 2022b).

Migrant youth (as proxied by young people born outside the country) are more likely to be NEET than native-born young people, though the marginal effects are smaller than might be expected from a simple inspection of the relative NEET rates. In 2021, the difference in NEET rates between native and foreign-born youth calculated from the EU-LFS data was 13 p.p. in Italy, 5 p.p. in Portugal, and 12 p.p. in Spain—compared to the estimated marginal effects of 6, 4, and 7 p.p. respectively. This suggests that foreign-born youth also tend to have other characteristics associated with a higher probability of being NEET. In Italy and Spain, this could be partially explained by the fact that the youth population born outside the country have much lower levels of educational attainment compared to their counterparts born in the country. For example, based on EU-LFS data, in Italy in 2021, 53.0% of young migrants had only basic education (ISCED 0–2) compared to 38.4% of native-born youth. Similarly, the corresponding shares in Spain were 46.7% and 38.1% respectively. In Portugal, however, following Covid-19 and the dramatic

changes in the migrant population it precipitated, the population of young people born outside the country did not have lower educational attainment compared to Portugal-born youth. Just 24.3% of foreign-born youth had only basic education and 31.2% had advanced educational attainment (ISCED 5–8) compared to 30.9% and 24.4% respectively among native-born young people.

## 5. NEET Subgroups and Their Determinants

As observed above, the reasons for being NEET are many and various. This heterogeneity has long been identified as a challenge to using the concept as a basis for effective policy intervention among vulnerable youth (Furlong, 2006). A key issue dealt with in this article concerns how this heterogeneity relates to vulnerability. As a first step, we look at the relationship between individual characteristics and the subgroups of NEETs proposed by Mascherini and Ledermaier (2016).

There are commonalities as well as differences in the trends of the relative and absolute sizes of the subgroups in the three countries (Figure 2). Between 2015 and 2021, there was a substantial fall in the number of long-term unemployed young people in all three countries; this was over 40% in Italy, over 50% in Portugal, and over 60% in Spain. In all three countries, the share of NEETs accounted for by the long-term unemployed also fell significantly. For example, in Spain, the share of NEETs accounted for by the long-term unemployed decreased from 37.3 to 18.9% over the period. This in itself should be seen as an important achievement in these countries.

The labour market shock of the Covid-19 pandemic had pronounced effects on short-term unemployment in Spain and Portugal. The number of short-term unemployed NEET in the latter country returned to its pre-pandemic level in 2021, though the legacy of Covid-19 persisted in the higher levels of short-term unemployment in Spain.

Mirroring the decrease in long-term unemployment, the number and share of young NEETs that are NEET due to other reasons have increased in all three countries. In Portugal and Spain, the short-term unemployed are the dominant subgroup of NEETs. In Italy, the residual NEET due to other reasons category had by 2021 become the largest subgroup, accounting for 45.1% of NEETs. This suggests that more investigation is needed into what underlies these “other reasons.”

A multinomial logit model of the different NEET subcategories provides further insight into the nature of the differences among subgroups of young NEETs (Table 4). The table reports the average marginal effects of different characteristics on the probability of being in each NEET subgroup (as opposed to any other NEET subgroup), relative to the base category of the explanatory variable.

Across all three countries, the probability of being in long-term unemployment increases with age. As one might expect, getting older is also associated with a higher likelihood of being NEET due to family responsibilities for young women, especially in Italy. In contrast, NEETs in the younger age group are more likely to be NEET for other reasons across all three countries, and this association is particularly pronounced among young women. While the probability of being NEET due to illness/disability increases with age in Italy and Portugal, a negative relationship is observable for young NEETs in Spain.

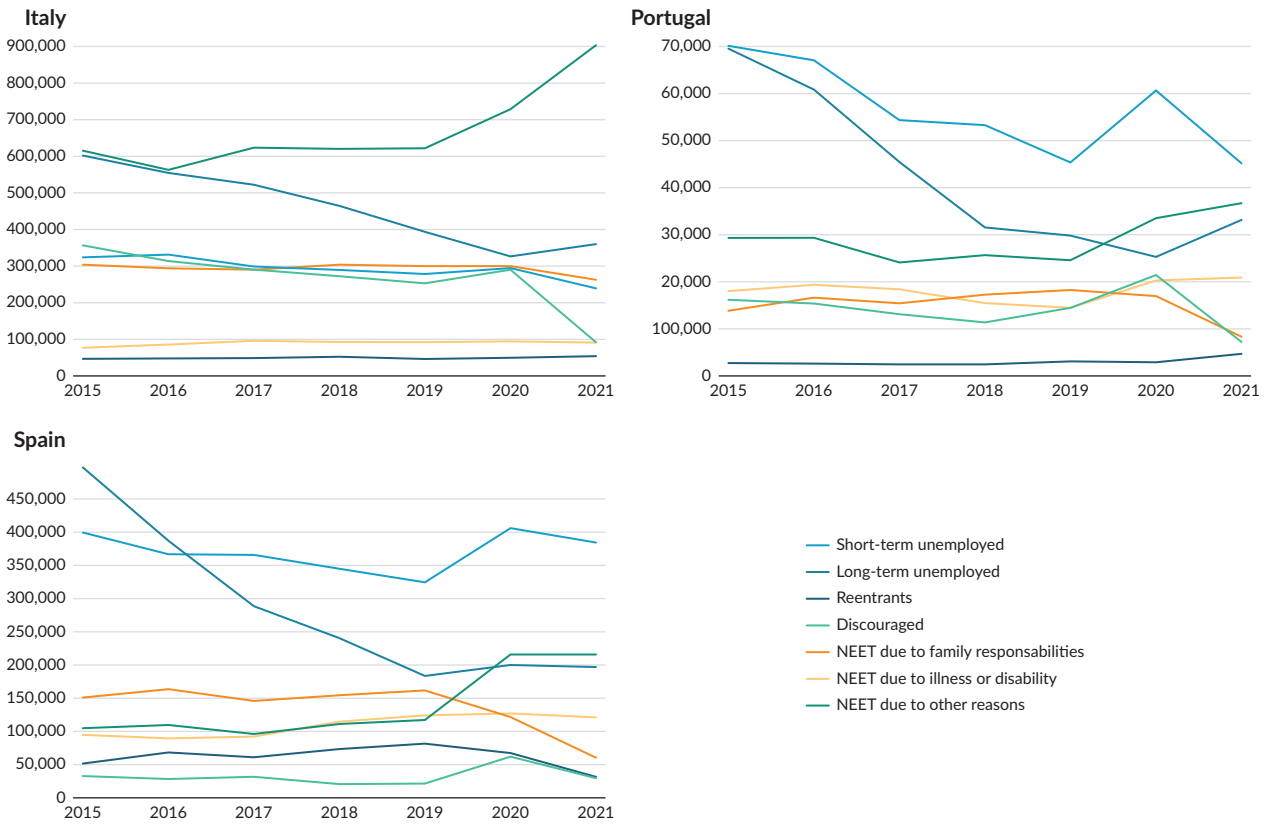


**Figure 2.** NEET youth by subgroup in Italy, Portugal, and Spain, 2015–2021. Source: Calculated on weighted EU-LFS data for 2015–2021 (Eurostat, 2022b).

The association between educational attainment and the NEET subgroup is also fairly consistent across countries. In all three countries, higher educational attainment is associated with a lower likelihood of being in long-term unemployment or being NEET due to illness/disability, or for young women being NEET due to family responsibilities. Conversely, in all three countries, higher educational attainment is associated with a greater probability of being in short-term unemployment.

The average marginal effect of urban/rural locations tends to be small, with a few exceptions. For example, rural young men in Spain are more likely to be in short-term unemployment compared to their urban counterparts. Young people born outside the country have much more variable associations by gender with a probability of belonging to different NEET subgroups. For young women in Portugal, migrant status is strongly associated with long-term unemployment, and for young women in Spain and Italy, it is associated with being NEET due to family responsibilities.

**Table 4.** Multinomial logit model of NEET subgroup membership (average marginal effects).

| | Short term unemployment | | Long-term unemployment | | Reentrants | | Discouraged | | NEET due to family responsibilities | | NEET due to illness/disability | | NEET due to other reasons | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Italy | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Location | | | | | | | | | | | | | | |
| Urban | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Rural | 0.01* | 0.00 | –0.04* | –0.03* | 0.01* | 0.01* | 0.01* | 0.01* | 0.00 | –0.01* | 0.00 | –0.01* | 0.00* | 0.03* |
| Age group | | | | | | | | | | | | | | |
| 15–19 | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| 20–24 | 0.00 | 0.00* | 0.14* | 0.14* | 0.02* | 0.01* | 0.03* | 0.02* | 0.00 | 0.11* | 0.04* | 0.03* | –0.23* | –0.32* |
| 25–29 | –0.01* | –0.03* | 0.18* | 0.11* | 0.02* | 0.01* | 0.07* | 0.04* | 0.00* | 0.32* | 0.05* | 0.03* | –0.30* | –0.48* |
| Education level | | | | | | | | | | | | | | |
| ISCED 0–2 | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| ISCED 3–4 | 0.07* | 0.05* | –0.02* | 0.03* | 0.01* | 0.02* | 0.02* | 0.03* | 0.00* | –0.13* | –0.05* | –0.04* | –0.03* | 0.03* |
| ISCED 5–8 | 0.11* | 0.13* | –0.11* | –0.04* | 0.02* | 0.03* | –0.03* | 0.01* | –0.01* | –0.25* | –0.08* | –0.05* | 0.12* | 0.16* |
| Place of birth | | | | | | | | | | | | | | |
| Born in the country | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Born outside the country | 0.09* | 0.04* | 0.01* | –0.07* | –0.01* | –0.01* | 0.00 | –0.03* | 0.01* | 0.21* | –0.01* | –0.01* | –0.09* | –0.13* |

**Table 4.** (Cont.) Multinomial logit model of NEET subgroup membership (average marginal effects).

| | Short term unemployment | | Long-term unemployment | | Reentrants | | Discouraged | | NEET due to family responsibilities | | NEET due to illness/disability | | NEET due to other reasons | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Portugal | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Location | | | | | | | | | | | | | | |
| Urban | (base) | | (base) | | (base) | | (base) | | omitted | | (base) | | (base) | |
| Rural | –0.03* | –0.02* | 0.04* | –0.06* | 0.00 | 0.00 | 0.02* | 0.03* | | 0.02* | 0.00 | 0.00 | –0.03* | 0.02* |
| Age group | | | | | | | | | | | | | | |
| 15–19 | (base) | | (base) | | (base) | | (base) | | | | (base) | | (base) | |
| 20–24 | –0.07* | –0.05* | 0.16* | 0.19* | –0.02* | –0.04* | 0.08* | 0.03* | | 0.05* | 0.03* | –0.03* | –0.17* | –0.15* |
| 25–29 | –0.18* | –0.12* | 0.14* | 0.18* | –0.03* | –0.03* | 0.03* | 0.04* | | 0.11* | 0.14* | 0.08* | –0.10* | –0.26* |
| Education level | | | | | | | | | | | | | | |
| ISCED 0–2 | (base) | | (base) | | (base) | | (base) | | | | (base) | | (base) | |
| ISCED 3–4 | 0.16* | 0.14* | –0.03* | 0.06* | 0.01* | 0.03* | 0.01* | 0.03* | | 0.00 | –0.19* | –0.22* | 0.03* | –0.03* |
| ISCED 5–8 | 0.32 | 0.32* | –0.05* | –0.12* | 0.02* | 0.05* | –0.02* | 0.01* | | –0.13* | –0.24* | –0.17* | –0.02* | 0.04* |
| Place of birth | | | | | | | | | | | | | | |
| Born in country | (base) | | (base) | | (base) | | (base) | | | | (base) | | (base) | |
| Born outside country | 0.02* | –0.01* | –0.01 | 0.24* | –0.03* | 0.01* | 0.00 | –0.05* | | –0.01* | –0.13* | –0.13* | 0.14* | –0.05* |

**Table 4.** (Cont.) Multinomial logit model of NEET subgroup membership (average marginal effects).

| | Short term unemployment | | Long-term unemployment | | Reentrants | | Discouraged | | NEET due to family responsibilities | | NEET due to illness/disability | | NEET due to other reasons | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Spain | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female | Male | Female |
| Location | | | | | | | | | | | | | | |
| Urban | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Rural | 0.10* | 0.02* | –0.02* | 0.00* | 0.02* | 0.02* | 0.00* | –0.03* | –0.01* | 0.01* | –0.07* | –0.05* | –0.03* | 0.01* |
| Age group | | | | | | | | | | | | | | |
| 15–19 | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| 20–24 | 0.08* | 0.18* | 0.06* | 0.18* | 0.01* | 0.00* | –0.01* | 0.00* | –0.04* | 0.03* | –0.05* | –0.05* | –0.05* | –0.34* |
| 25–29 | 0.10* | 0.06* | 0.13* | 0.22* | 0.01* | 0.00* | 0.00* | 0.01* | –0.04* | 0.08* | –0.07* | –0.04* | –0.13* | –0.33* |
| Education level | | | | | | | | | | | | | | |
| ISCED 0–2 | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| ISCED 3–4 | 0.11* | 0.10* | –0.05* | –0.10* | –0.01* | 0.01* | –0.02* | 0.00* | 0.02* | –0.05* | 0.01* | –0.03* | –0.06* | 0.06* |
| ISCED 5–8 | 0.12* | 0.07* | 0.00* | –0.09* | 0.06* | 0.03* | 0.01* | –0.01* | 0.01* | –0.05* | –0.08* | –0.08* | –0.11* | 0.13* |
| Place of birth | | | | | | | | | | | | | | |
| Born in country | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Born outside country | 0.02* | –0.07* | –0.09* | –0.07* | –0.02* | –0.03* | 0.01* | 0.01* | –0.01* | 0.14* | –0.03* | –0.06* | 0.12* | 0.08* |

Notes: * Average marginal effects statistically significant at $p < 0.05$; the model for male NEETs in Portugal omits the NEET due to family responsibility subgroup due to its small sample size. Source: Calculated on weighted EU-LFS data for 2021 (Eurostat, 2022b).

## 6. Vulnerability and NEET: Risk of Poverty or Social Exclusion Among NEET Subgroups

A central concern here is with the relationship between the different reasons for being NEET and vulnerability—in terms of the risk of social and economic exclusion (operationalised here using the AROPE indicator)—and how this varies across time and space. Identifying the subgroups of NEET which are most at risk is a crucial step in identifying the appropriate support mechanisms to assist young people falling into these categories. Moreover, examining how these vary together with the examination of PES registration reported in Section 6 provides some indication regarding the ability of policy interventions under the YG to mitigate risks in the three countries. In this regard, it is used to make inferences as to where greater attention is needed.

Examination of youth AROPE in 2015 and 2021 for the three countries illustrates both common features but also some significant differences between them. It is immediately evident that NEET young people are more vulnerable than non-NEETs, reaffirming the justification for focusing policy interventions on this group. All subgroups of NEET in both years and in all three countries have a larger share of members who display at least one dimension of AROPE than do young people either in education or employment (Figure 3). In 2015, the prevalence of vulnerability was relatively similar and most pronounced for young NEETs in long-term unemployment (which also incorporate a substantial portion of the discouraged who cannot be separately identified in the EU-SILC data), young people who are NEET due to family responsibilities, and, in Italy and Portugal, young people who are NEET due to illness/disability. In all three countries, by 2021, NEETs due to family responsibilities emerge as the most vulnerable subgroup, usually by some distance. In Italy and Portugal, in particular, the vulnerability attached to long-term unemployment has receded between 2015 and 2021. In Italy and Portugal, both the increase in vulnerability attached to being NEET due to family responsibilities and the reduction in vulnerability associated with being in long-term unemployment is clearly statistically significant (at $p < 0.01$) even controlling for multiple testing using a Bonferroni correction (e.g., Romano et al., 2010).

Controlling for other factors using a probit model of the probability of being AROPE in at least one dimension (Table 5), the increased vulnerability of young NEETs due to family responsibilities and, in Italy and Portugal, its worsening over time emerges even more clearly. In Italy, the estimated shift in the probability of being AROPE associated with being NEET due to family responsibilities is 36 p.p. in 2021 (compared to 18 p.p. in 2015). This increase in vulnerability is even more evident in Portugal where the marginal effect is estimated at 51 p.p. in 2021 compared to 14 p.p. in 2015, a change of 37 p.p. There is a clear picture of increasing vulnerability among young NEETs due to family responsibilities, who are primarily young women.

Findings presented in Section 3 demonstrate that less educated young people are more likely to be NEET. If NEET, they are also more likely to find themselves in long-term unemployment, NEET due to illness/disability, and, if female, to be NEET due to family responsibilities. These too are precisely the NEET subgroups which are more strongly associated with being AROPE. There are some cross-country differences in the changes visible between 2015 and 2021; in Italy and Portugal, however, there is a substantial increase in the likelihood of being vulnerable amongst young people who are NEET due to family responsibilities. In Portugal and Spain, there is also a tendency towards greater vulnerability amongst the long-term unemployed. Broadly speaking, between 2015 and 2021, there has been a tendency towards an increase in vulnerability, as measured by the AROPE indicator, amongst the already more vulnerable groups.

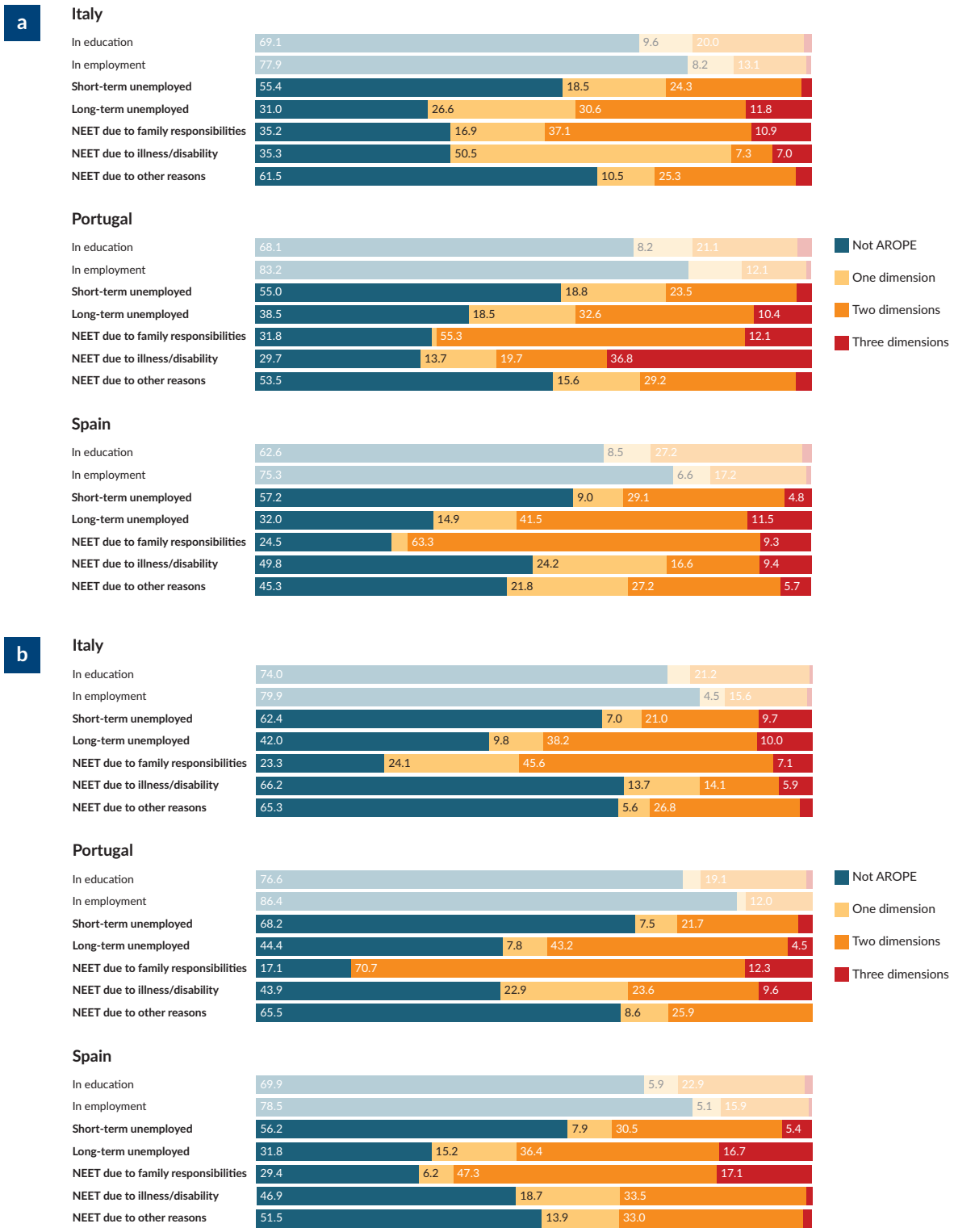


**Figure 3.** Share of youth AROPE by NEET subgroup: (a) 2015 and (b) 2021. Notes: It is not possible to identify discouraged workers due to the EU-SILC survey methodology, which asks respondents to self-report their employment status; as a result, a weaker definition of unemployment is used that does not check whether individuals are actively searching for, or available to, work; assuming that discouraged workers consider themselves unemployed, they will be included in the relevant unemployment group depending on how long they have been "unemployed." Source: Calculated on weighted EU-SILC data for 2015 and 2021 (Eurostat, 2022c).

**Table 5.** Probability of being AROPE on at least one dimension, 2015 and 2021.

| | Italy | | | | Portugal | | | | Spain | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2015 | | 2021 | | 2015 | | 2021 | | 2015 | | 2021 | |
| | with subgroups | without subgroups | with subgroups | without subgroups | with subgroups | without subgroups | with subgroups | without subgroups | with subgroups | without subgroups | with subgroups | without subgroups |
| NEET subgroup | | | | | | | | | | | | |
| Short-term unemployed | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Long-term unemployed | 0.22* | | 0.17* | | 0.14* | | 0.23* | | 0.19* | | 0.21* | |
| NEET due to family responsibilities | 0.18* | | 0.36* | | 0.14* | | 0.51* | | 0.23* | | 0.08* | |
| NEET due to illness/disability | 0.09* | | −0.06* | | 0.16* | | 0.14* | | −0.06* | | −0.02* | |
| NEET due to other reasons | −0.06* | | −0.04* | | 0.02* | | −0.01* | | 0.00 | | 0.07* | |
| Gender | | | | | | | | | | | | |
| Male | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Female | 0.00* | −0.01* | −0.03* | 0.02* | 0.02* | 0.01* | −0.03* | 0.00 | 0.03* | 0.04* | −0.02* | −0.02* |
| Location | | | | | | | | | | | | |
| Urban | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Rural | −0.07* | −0.07* | −0.02* | −0.03* | 0.02* | 0.04* | 0.09* | 0.07* | 0.04* | 0.03* | −0.05* | −0.06* |
| Age group | | | | | | | | | | | | |
| 15–19 | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| 20–24 | 0.05* | 0.14* | 0.00 | 0.11* | 0.03* | 0.07* | −0.05* | 0.01* | −0.05* | −0.02* | −0.09* | −0.08* |
| 25–29 | 0.06* | 0.18* | 0.08* | 0.23* | 0.06* | 0.10* | −0.15* | −0.05* | −0.14* | −0.10* | −0.06* | −0.04* |
| Education level | | | | | | | | | | | | |
| ISCED 0–2 | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| ISCED 3–4 | −0.15* | −0.16* | −0.06 | −0.11* | −0.16* | −0.18* | −0.17* | −0.23* | −0.23* | −0.25* | −0.08* | −0.08* |
| ISCED 5–8 | −0.29* | −0.36* | −0.16 | −0.28* | −0.23* | −0.27* | −0.22* | −0.31* | −0.35* | −0.38* | −0.26* | −0.28* |
| Place of birth | | | | | | | | | | | | |
| Born in the country | (base) | | (base) | | (base) | | (base) | | (base) | | (base) | |
| Born outside the country | −0.07* | −0.08* | −0.06* | −0.02* | 0.24* | 0.22* | 0.01 | 0.06* | 0.12* | 0.15* | 0.27* | 0.27* |

Note: * Marginal effects statistically significant at $p < 0.05$. Source: Calculated on weighted EU-SILC data for 2015 and 2021 (Eurostat, 2022c).

The association between age, lack of education, and vulnerability is also reflected in the marginal effects with and without controls for specific NEET subgroup membership. In all cases, the increased probability of being AROPE associated with being older and/or less educated is larger when controls for NEET subgroup membership are not included. This suggests that vulnerability associated with these characteristics is partially related to the NEET subgroup in which individuals with these characteristics are concentrated.

## 7. The Role of PES: Registration Trends and Determinants

Rates of registration with PES are an indicator of the extent to which young people are engaged with the YG. Significant differences in this are observable across the three countries. Registration rates are highest in Spain, followed by Portugal, with the lowest rates of registration with the PES recorded in Italy. In all three countries, the rate of registration of young NEETs has declined over the period 2015–2021.

In Spain and Portugal, and to a lesser extent also in Italy, higher registration rates are found among the short—and long-term unemployed, as one would expect. In Italy, a relatively small share of long-term unemployed NEETs is registered with the PES. In 2021, this stood at 35.3%, down from 53.7% in 2015. Across countries, registration rates tend to be lower among those NEET due to family responsibilities, NEET due to illness/disability, and the residual NEET due to other reasons category (Figure 4).

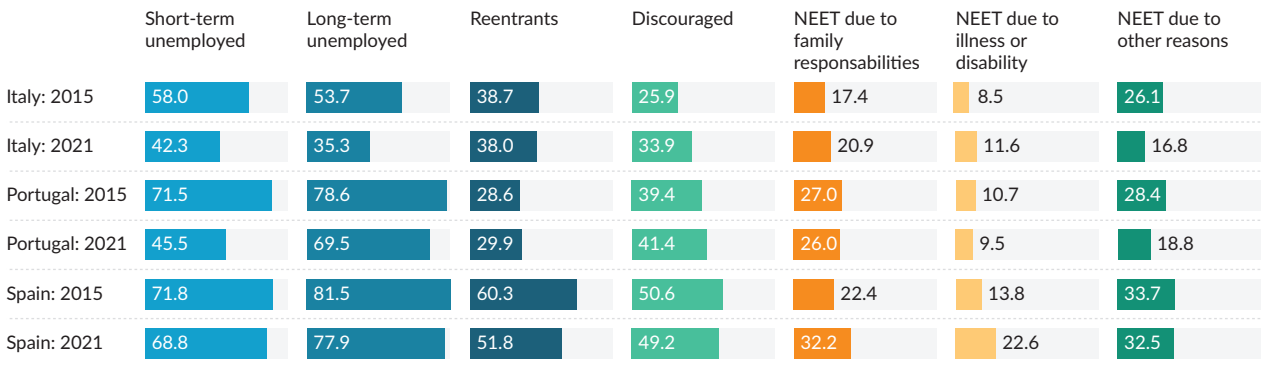


**Figure 4.** Rates of registration of young NEETs with the PES by NEET subgroup. Source: Calculated on weighted EU-LFS data for 2015 and 2021 (Eurostat, 2022b).

We explore the determinants of PES registration using probit models for the three countries and for the three time periods of 2015, 2019, and 2021 (Table 6). One key finding, observable also from the descriptive statistics is that consistently over time and across all three countries, the subgroups of young NEETs who are most vulnerable are those that are least likely to register with the PES. This is especially true of the discouraged, young NEETs due to family responsibilities or those who are NEET due to illness/disability. In Italy, controlling for other factors, a relatively low probability of PES registration is also evident among the other vulnerable NEET subgroup—the long-term unemployed. This divergence between short—and long-term unemployed, albeit modest, has been growing over time.

In contrast to the lower probability of PES registration emerging for vulnerable NEET subgroups, as regards individual characteristics, older and less educated NEETs who are more vulnerable to being AROPE are also

more, rather than less, likely to be registered with the PES. On the other hand, young migrants across all three countries and for all time periods are less likely to register with the PES.

**Table 6.** Probit model of PES registration (marginal effects).

| | Italy | | | Portugal | | | Spain | | |
|---|---|---|---|---|---|---|---|---|---|
| | 2015 | 2019 | 2021 | 2015 | 2019 | 2021 | 2015 | 2019 | 2021 |
| Location | | | | | | | | | |
| Urban | (base) | | | (base) | | | (base) | | |
| Rural | 0.04* | 0.03* | 0.02* | −0.04* | 0.09* | 0.07* | 0.02* | 0.09* | 0.18* |
| NEET subgroup | | | | | | | | | |
| Short-term unemployed | (base) | | | (base) | | | (base) | | |
| Long-term unemployed | −0.06* | −0.11* | −0.13* | 0.06* | 0.07* | 0.16* | 0.07* | −0.05* | 0.06* |
| Reentrants | −0.21* | −0.08* | −0.07* | −0.43* | −0.34* | −0.18* | −0.15* | −0.19* | −0.21* |
| Discouraged | −0.33* | −0.20* | −0.15* | −0.32* | −0.25* | −0.12* | −0.22* | −0.41* | −0.21* |
| NEET due to family responsibilities | −0.39* | −0.26* | −0.27* | −0.47* | −0.33* | −0.37* | −0.50* | −0.46* | −0.38* |
| NEET due to illness/disability | −0.50* | −0.33* | −0.35* | −0.63* | −0.48* | −0.46* | −0.62* | −0.60* | −0.49* |
| NEET due to other reasons | −0.31* | −0.20* | −0.26* | −0.42* | −0.36* | −0.31* | −0.36* | −0.39* | −0.34* |
| Gender | | | | | | | | | |
| Male | (base) | | | (base) | | | (base) | | |
| Female | −0.04* | −0.02* | −0.01* | 0.06* | 0.02* | 0.20* | 0.01* | 0.08* | 0.04* |
| Age group | | | | | | | | | |
| 15–19 | (base) | | | (base) | | | (base) | | |
| 20–24 | 0.11* | 0.10* | 0.17* | 0.12* | 0.14* | 0.17* | 0.26* | 0.17* | 0.15* |
| 25–29 | 0.10* | 0.13* | 0.24* | 0.19* | 0.26* | 0.28* | 0.31* | 0.34* | 0.35* |
| Education level | | | | | | | | | |
| ISCED 0–2 | (base) | | | (base) | | | (base) | | |
| ISCED 3–4 | 0.09* | 0.02* | −0.02* | 0.02* | 0.04* | −0.10* | −0.11* | −0.04* | −0.03* |
| ISCED 5–8 | −0.03* | −0.10* | −0.14* | −0.02* | −0.07* | −0.20* | −0.18* | −0.09* | −0.18* |
| Place of birth | | | | | | | | | |
| Born in country | (base) | | | (base) | | | (base) | | |
| Born outside country | −0.06* | −0.02* | −0.06* | −0.21* | −0.08* | −0.14* | −0.20* | −0.19* | −0.23* |

Note: * Marginal effects statistically significant at $p < 0.05$. Source: Calculated on weighted EU-LFS data for 2015, 2019, and 2021 (Eurostat, 2022b).

## 8. Discussion

The analysis has examined the heterogeneity of young NEETs and how this has changed between 2015 and 2021 in the context of the implementation of the YG. The characteristics associated with NEET status and how these vary across countries are relatively stable over time. The probability of being NEET falls with individual educational attainment and increases with age. The extent to which this is true varies a little across time and space, but, for all three countries, these factors consistently have larger marginal effects than any other factor. Being born outside the country is also consistently and significantly associated with a higher likelihood of being NEET, though associated with a smaller marginal effect.

The results of the multinomial logit analysis of the association of specific individual characteristics with NEET subgroups have demonstrated that age and education are also strongly associated with belonging to specific subgroups of young NEETS: the long-term unemployed, the discouraged, young NEETs due to family responsibilities, and young NEETs due to illness/disability. These are precisely the categories of young NEETs who are more vulnerable in terms of being more susceptible to the risk of poverty or social exclusion as measured by the AROPE indicator.

Between 2015 and 2021, the number of young people in long-term unemployment fell significantly in all three countries, by just over 40% in Italy, over 50% in Portugal, and by just over 60% in Spain, whilst the share of youth who were NEET due to family responsibilities or illness/disability remained more or less unchanged. The analysis of the probability of being AROPE in at least one dimension showed that the association between vulnerability and long-term unemployment changed relatively little over the period. However, the vulnerability associated with being NEET due to family responsibilities increased substantially in Italy and Portugal, whilst remaining at a significant level also in Spain. In other words, between 2015 and 2021, long-term unemployment fell significantly as did—at least in Italy and Portugal—the vulnerability associated with it. At the same time, the prevalence of being NEET due to family responsibilities remained largely unchanged and the vulnerability associated with that status increased in Italy and Portugal.

The descriptive and econometric analysis of PES registration has shown that engagement with the PES was much less likely in Italy as a whole. More generally, PES registration is unsurprisingly much more prevalent amongst active labour force participants and especially the long-term unemployed, than among young people outside the labour market. As (especially long-term) unemployment has fallen, so too has PES registration in all three countries. To some degree, there has also been a mild increase in the tendency of discouraged and young NEETs due to family responsibilities to register between 2015 and 2021. However, this change is much less pronounced.

Perhaps the overriding finding of the analysis is that whilst the numbers and vulnerability associated with some forms of NEET have diminished over the lifetime of the YG, the vulnerability to poverty or social exclusion of others—and, above all, NEETs due to family responsibilities—has increased.

These results are of significance for the future implementation of the YG in all three countries. We have not attempted any sort of impact evaluation of the YG itself, which clearly limits the inferences that can be drawn here. Indeed, given the comprehensive nature of the YG itself and the consequent difficulties with identifying an appropriate control group uninfluenced by the implementation of the programme, rigorous

impact evaluation of the YG has proved challenging to date (O'Higgins et al., 2023), although impact evaluations that have been carried out suggest a moderate positive impact (e.g., O'Higgins & Pica, 2020). However, the greater reductions in NEET rates in Spain and Portugal may in part reflect the more effective implementation of the YG as has been suggested in other qualitative studies (e.g., Emmanouil et al., 2023; Petrescu et al., 2022). We are able to unequivocally assert, however, that the situation of NEETs outside the labour market, many of whom exhibit high vulnerability, have not seen their situation improve significantly during the lifespan of the YG to date.

## 9. Conclusions

The reasons that young people find themselves in NEET status are many and various. In Europe, this diversity has important implications for the design and fine-tuning of appropriate policy responses, including the implementation of the YG. This article has examined characteristics and trends in young NEETs in the three Mediterranean countries of Italy, Portugal, and Spain, where the difficulties of labour market entry encountered by young people have traditionally been relatively pronounced. In particular, the article has examined NEET heterogeneity, and how both vulnerability to poverty or social exclusion and PES registration vary across different types of young NEETs. In doing so, a number of policy-relevant findings emerge.

NEET rates have fallen significantly in the three countries during the lifetime of the YG, even more so than has been the case in the EU as a whole. One consequence is that the traditional view of these "sub-protective regime" countries as characterised by high youth unemployment (and NEET) rates is now to some extent debatable, at least in the case of Portugal and Spain. NEET rates in the former are now well below the EU average and in the latter, close to it. At the same time, the findings reported above also make clear that the share of young NEETs who are outside the labour force has increased significantly in all three countries, as has the vulnerability associated with some of their subgroups.

The examination of the relationship between the risk of poverty or social exclusion on the one hand and individual characteristics and NEET subgroups on the other makes clear two key points. Vulnerability (as measured by the AROPE indicator) is clearly—and unsurprisingly—more pronounced amongst young NEETs than it is among young workers or students but it also varies greatly across different types of young NEETs. In particular, the article has demonstrated that vulnerability is especially high amongst young people who are NEET due to family responsibilities, who are primarily young women. This group has remained substantial in size and the vulnerability associated with it has increased over time. The implication is that more needs to be done to support this group and remove the potential obstacles to labour market participation. Indeed, registration with the PES amongst this subgroup of NEET is particularly low, suggesting that many of these young people are outside the current purview of the YG.

This article has made evident the importance of directing attention to some of the more vulnerable, and less tractable, groups of young people that is naturally prompted by the shift in focus of youth employment policy going beyond just the unemployed.

## Acknowledgments

This article was supported by the TRACK-IN—Public Employment Services Tracking Effectiveness in Supporting Rural NEETs. This project is funded by Iceland, Liechtenstein, and Norway through the EEA and Norway Grants Fund for Youth Employment. The authors gratefully acknowledge the useful comments and suggestions provided by three anonymous referees and the thematic issue's editors as well as those made by participants at the conference Activating NEETs: Challenges and Solutions across Europe, held at the University of Naples "Parthenope," June 6–8, 2023. The authors take full responsibility for any remaining errors.

## Conflict of Interests

The authors declare no conflict of interests.

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