

**BEING WORKING POOR OR FEELING WORKING POOR?  
THE ROLE OF WORK INTENSITY AND JOB STABILITY  
FOR SUBJECTIVE POVERTY**

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**Abstract (218 words)**

Low work intensity and job instability are crucial micro-determinants of in-work poverty. They might also affect subjective poverty for those households that are above the poverty threshold. We study the relationship between subjective and objective in-work poverty and how this relationship is affected by the household members' job characteristics in Italy, using the 2014 Italian wave module of the Eu-Silc survey.

We find no statistically significant differences in the association between subjective poverty and different degrees of objective poverty by work intensity. Conversely, subjective poverty is affected by instability of household members' job contracts. Policies aimed at increasing work intensity rather than work stability might not help in reducing subjective poverty and its (negative) spill-over effects on other life domains, such as well-being, adequate level of consumptions, social integration.

**Key words:** in-work poverty; work intensity; job instability; subjective poverty; Italy

## 1. Introduction

In Europe in-work poverty is a widespread and worrisome phenomenon (Lohmann and Marx, 2018). The not negligible percentage of workers living in poor households - around 10% on average (Eurofound, 2017) - proves that having a job does not prevent families from the risk of poverty. The working poor rate is usually estimated as the percentage of workers living in households with an income below a conventional threshold at 60% of the median equivalized household income (Crettaz, 2013; Lohmann and Marx, 2008; Lohmann and Marx, 2018).

While poverty has been widely studied using different approaches, in-work poverty has been analysed mainly based on an objective definition of monetary poverty. In particular, little attention has been devoted to the subjective dimensions of in-work poverty. Subjective poverty can result from objective poverty but that can also go beyond it, revealing the presence of financial stress among households and reflecting the perceived acceptable minimum living standards. Feeling poor can worsen different aspects of well-being and negatively affect the consumption levels regardless of the income actually available to the household (Guagnano *et al.*, 2016; Ravallion, 2014; Siposné Nándori, 2011).

Indeed, the imperfect overlapping between the populations identified by the measures of objective or subjective poverty is a well-established finding (Boeri and Brandolini, 2005; Castilla, 2011; Crettaz and Suter, 2013; Ravallion and Chen, 2009; Strengmann-Kuhn, 2000). Notably, a large share of population in Southern and Eastern European countries expresses to experience subjective hardship besides the fact of being or not materially poor (Atkinson *et al.*, 2017). We expect this imperfect overlapping characterizes also the working poor population.

Previous results showed that job instability and low work intensity are crucial micro-determinants of in-work poverty (Lohmann and Marx, 2018). Therefore, they might also affect the relationship between subjective and objective in-work poverty and in particular they might affect subjective poverty also for those households that are above the poverty threshold. In line with the permanent income hypothesis, uncertainty about future income might decrease consumption level and increase the feeling of poverty of risk-averse families because individuals and households' consumption levels do not depend on the current level of income, but on the expected long-term average income. Consequently, especially in periods of economic crisis, exogenous shocks (job loss, union dissolution, death of a working household member) have greater consequences on households that are characterised by low work intensity and high job instability, increasing their feeling of poverty.

As far as we know, the relationship between subjective and objective in-work poverty and how this relationship is affected by the household members' job characteristics has not yet been analysed in the literature. We aim at filling this gap by focussing on the case of Italy, using the 2014 Italian wave module of the Eu-Silc survey.

As most of the EU countries, over the last decade Italy has experienced an increase in the number of (working) poor households (Eurofound, 2017; Filandri and Struffolino, 2013). Moreover, similarly to other Southern European countries, in Italy the share of households reporting subjective hardship is strikingly high compared to the rest of the EU area (Eurostat, 2013). If in the Nordic countries less than 3% of households report subjective poverty, the corresponding figure is 7% for the North-Western ones, increasing to 26% and 33% respectively for Southern and Eastern countries. This arguably results from a weak welfare state system and from a labour market deregulation "at the margins" that produced a highly differentiated opportunity structure for workers (Barbieri *et al.*, 2018).

Our findings show that work intensity plays a not statistically significant role in the association between subjective poverty and different degrees of monetary poverty. Conversely, subjective poverty is prevalent among families in which households' members experience high levels of job instability. The presence of working members employed on

temporary contracts, in fact, increases the probability of feeling poor for all level of household income (except for well-off families).

The paper is organized as follow: Section 2 and 3 discuss the literature and present our research questions and hypotheses. In Section 4 we illustrate the Italian context, while in Section 5 we describe the dataset, the sample selection and the variables we use for our empirical analysis. Section 6 presents our results. Conclusions follow.

## 2. Objective and subjective definition of (in-work) poverty

The literature on poverty focuses mainly on objective poverty, which is based on monetary or non-monetary indicators such as household income, household consumption, or material goods (Mahmood *et al.*, 2018). Each of these measures has both advantages and disadvantages and there is a broad debate about the most appropriate indicator to be used (e.g. Kim, 2016; Meyer and Sullivan, 2012). All these indicators are based on measures that focuses on individual or household's access to different economic resources (Ravallion, 2012).

A common distinction within the objective measures of poverty is between absolute and relative indicators. Absolute measures refer to the minimum level of income needed to maintain basic living standards (food, shelter, housing). Households with an income below this level are considered poor. Differently from absolute measures, relative indicators take into account the overall income distribution within a society.

Therefore, relative poverty is defined as the inability to reach a minimum acceptable standard of living, computed using income thresholds (e.g. 50, 60, or 66% of mean or median income).

Besides the objective approach, subjective indicators emerged from the development literature as alternative measures to quantify poverty by referring to self-perception of own economic situation (Kuivalainen, 2014). These indicators are based on an evaluation of either own monetary situation, or on non-monetary aspects.

Contrary to the definitions of objective poverty, the distinction between absolute and relative approaches is vague when considering subjective poverty, which is based on individual judgment. When individuals are asked to evaluate their economic situation, in fact, two main factors can affect the judgement: a psychological component of feeling poor and the evaluation of own situation with respect to the situation of other households living in the same context (Van Praag *et al.*, 1980). As a consequence, the perception of being poor varies across contexts (Lucchini and Sarti, 2005; Nolan and Whelan, 2009) depending on available economic resources, household size, individual socioeconomic characteristics (i.e. gender, age, education, tenure) (Castilla, 2011; Ravallion and Lokshin, 2002; Stanovnik and Verbič, 2004), but also on the average living standard in the area or in the country of residence (Buttler, 2013; Lucchini and Sarti, 2005; Strengmann-Kuhn, 2000; Tentschert *et al.*, 2000) and on the socio-economic and cultural context (Boeri and Brandolini, 2005; Gallino, 2011).

Subjective monetary poverty has been investigated adopting mainly two indicators. The first considers the ability to “make ends meet”, and it can be seen as a measure of the degree of financial stress (Hagenaars and de Vos, 1988), while the second assesses the subjective amount of monetary resources needed to guarantee to the household minimum living standards, implicitly defining a subjective poverty threshold<sup>1</sup> (Colasanto *et al.*, 1984; Van Praag, et al., 1980).

To simplify the above discussion on poverty measures, we can classify the mainly used indicators along two dimensions (Figure 1).

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<sup>1</sup> For a more detailed discussion see Van Praag and Ferrer-i-Carbonell (2008).

[Figure 1 here]

In our analysis, we focus only on the monetary definitions of poverty<sup>2</sup>. It is a well-established finding that populations suffering objective poverty and population declaring subjective poverty only partially overlap (Berthoud and Bryan, 2011; Castilla, 2011; Filandri *et al.*, 2013; Muffels and Fouarge, 2003; Negri and Saraceno, 2003; Pradhan and Ravallion, 2000; Ravallion and Chen, 2009; Strengmann-Kuhn, 2000). Two possible type of inconsistencies may arise: poor individuals who do not feel poor and non-poor ones who feel to have less than what they need. For the latter group of individuals, the perception of current and future socio-economic condition of the household in which they live might play a crucial role in feeling poor. Since actual and expected wages are the main source of household disposable income, especially for non-wealthy families, in-work poverty can be a noteworthy topic to be investigated.

Previous research on working poor mostly used objective monetary measures defined in relative terms (Crettaz, 2013; Kalugina, 2013) and showed that having a job is not enough to avoid financial stress and the feeling of poverty (Buttler, 2013; Guagnano *et al.*, 2016).

To the best of our knowledge no study investigated the relationship between feeling poor and being poor among the working population. We aim at filling this gap, by considering the relationship between subjective and objective monetary poverty within the group of households in which at least one member is employed. This focus allows for a more rigorous analysis within the population of working households for which the comparison group is given by other *working* households rather than by all other households (Mayer and Jencks, 1988; Muffels and Fouarge, 2003; Nolan and Whelan, 1996; Whelan *et al.*, 2001; Whelan and Maître, 2005).

### 3. The role of household work intensity and job stability

Previous empirical evidence on the determinants of in-work poverty showed that being working poor is associated with different job characteristics. Low work intensity and job instability are two of the most prominent micro-level factors<sup>3</sup> (Crettaz, 2013).

We define work intensity as the number of full-time equivalent workers within the household<sup>4</sup>. This measure clearly depends on both the number of earners and on part-time workers living in the household. For the job instability we use two different definitions: the share of household working members with temporary contracts and the share of total household labour income from temporary jobs. Both work intensity and job instability are particularly relevant since, in the last decades, we witnessed to a rise in dual-earners households due to the increased women's labour force participation but also to an increase in economic insecurity due to diffusion of temporary contract arrangements.

We analyse whether and how the characteristics of household members' jobs contribute to explain the non-perfect overlapping between objective and subjective poverty found in previous studies. Given that, according to the permanent income hypothesis, household consumption decisions are based on the long run (permanent) income rather than on the current one, and given the risk aversion of most households (Alderman and Paxson, 1994;

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<sup>2</sup> In the rest of the paper, we consider subjective poverty, inability to make end meet and economic strain as synonymous.

<sup>3</sup> Literature also identify low wage as cause of in-work poverty. However we do not consider this aspect here because low wage is associated with low levels of household work intensity and less stable jobs (Eurofound, 2017). Moreover the hourly wage is not available in Eu-Silc.

<sup>4</sup> In the literature other definitions of work intensity that consider previous months worked in the year can be found. See for example Berloffia *et al.* (2015) or Ayllón and Gábos (2017).

Hall, 1978), it might be the case that the characteristics of household members' jobs affect subjective poverty beyond the actual economic situation measured by disposable income.

Low work intensity and job instability might lower expectations on future income increasing the probability of being poor (Crettaz and Bonoli, 2011; Goerne, 2011), the subjective wellbeing in general (Kauhanen and Nätti, 2015) and the ability to make ends meet in particular (Scherer, 2009; Whelan and Maître, 2014). Poor labour market outcomes of household members can contribute to worsen a condition of economic and social disadvantage by the accumulation of different specific risks within the same household.

In analysing the effect of household members' job characteristics on the relationship between objective and subjective poverty, we advance three different hypotheses. First, we hypothesize that households characterised by higher work intensity are less likely to feel poor for all levels of objective poverty (H1). Work intensity, resulting from working full-time and/or living in a dual earner household, might results in feeling less vulnerable. It is likely that a family that relies on labour income from two full-time jobs feels less economically stressed than a single that can rely only on his/her full-time wage, even if their equalized incomes are the same.

Secondly, we hypothesize a positive relationship between subjective in-work poverty and household job instability at all levels of objective poverty (H2). In this case, we expect that, besides the objective poverty (measured with the amount of economic resources available), household members consider their expected future income when declaring subjective poverty (permanent income hypothesis). Therefore, households in which at least one worker has a permanent contract can provide members with a safety net, so that they are less likely to feel poor.

Moreover, the household consumption level might be chosen according to the level of income considered secure/stable. As a consequence, we also expect the percentage of stable income to be negatively associated with the probability of being subjectively poor (H3).

#### **4. Trends in poverty in Italy**

The poverty rate in Italy has always been higher with respect to the average value of the European Union for all poverty measures: in-work poverty, objective poverty and subjective poverty (Figure 2). Particular relevant are two facts. Firstly, the working poor rate from 2005 to 2014 in Italy has increased by 34% (from 8.8% to 11.8%) while the corresponding figure for the European Union raised only by 18% (from 8.1% to 9.6%). Secondly, the share of households reporting subjective economic hardship is much higher in Italy than in most of the countries in the EU area in whole period considered.

The increase in the number of working poor and the high incidence of subjective poverty can be related to the employment deregulation process implemented in Italy, as in other Mediterranean countries, which started in mid-1990s. Labour market liberalization has been conceived as the key instrument to remove or soften market rigidities for increasing labour productivity and fostering employment participation. Italy represents indeed a case of special interest: the country's labour market institutions have dramatically changed since the Nineties with a huge reduction in the Employment Protection Legislation (EPL) for new hired workers (Fana *et al.*, 2015). In particular, aiming at increasing the active participation of specific categories of workers, such as women, old-age workers, young people and immigrants (Vesan, 2009), numerous reforms were implemented in order to reduce the constraints on hiring with several new types of temporary contracts and have mitigated the sanctions for violations regarding the obligation under specific circumstances to transform temporary contracts into open-ended arrangements (Law 86/1997 'Treu package', Legislative Decree 368/2001, and Law 30/2003 'the Biagi law').

[Figure 2 here]

One of the main consequences of the numerous reform implemented in Italy is the growth in the incidence of temporary employment ('atypical' or 'non-standard' jobs) that has increased from 9% (in 2005) to 14% (in 2014) of total employment almost all temporary employment is involuntary (Fana, et al., 2015). Moreover, the labour market reforms in the late 2000s (Law 92/2012 named 'the Fornero law' and most recent Law 183/2014 known as 'Job acts') reinforced the dualization of the Italian labour market, resulting in a high incidence of involuntary part time contracts reduced contractual guarantees and low wages (Barbieri, et al., 2018).

In this scenario it can be relevant investigating the effect of work intensity and job stability on the relationship between objective and subjective poverty among working household in Italy.

## 5. Methodology

### 5.1 Data and sample

Our analysis is based on the Italian data of the European Union Survey on Income and Living Conditions (Eu-Silc) dataset. Eu-Silc provides information on income, education, employment, health, housing conditions, material deprivation, social exclusion and living conditions at individual and at household level for a representative sample of the population in 31 countries. We use data collected in Italy in 2014 on a sample of 19,663 households. The unit of analysis is the household in which individual workers live. In order to have a more homogeneous sample for investigating in-work poverty, we select only households with at least one adult worker between 25 and 59 year-old, either employed or self-employed and working either part-time or full-time at the moment of the interview. We further restrict our sample to households with a maximum of two adult workers. We also exclude households with pension incomes. The final sample consists of 7,922 households.

### 5.2 Variables

*Dependent variable.* The main dependent variable is subjective (in-work) poverty, defined as the degree of difficulty experienced by the household in making ends meet, measured in the Eu-Silc dataset with a six-point scale indicator<sup>5</sup>. The variable has been dichotomized, by distinguishing households that can easily make ends meet (categories: fairly easy, easily, very easily) from those that make ends meet with difficulty (categories: with great difficulty, with difficulty, with some difficulty).

*Main independent variable.* Our main dependent variable is objective monetary poverty. Following the most common definition, we define working poor as workers living in households for which the net disposable household income (computed using equivalence scales) is below 60% of the median household income of the population (relative poverty line, see Eurofound 2017). We then identify five different groups, according to their distance from the relative poverty line. We define as *severely poor* households with less than 50% of the median income; those with an annual household disposable income between the 50 and 60% of the median income are defined as *poor*, while those with an annual income between the 60 and 70% of the median income are defined as *vulnerable*. *Non-poor* are households with an annual income between the 70% of the median income and the median income, while those with an income above the median income are *wealthy*.

*Other independent variables.* We consider two indicators of the working conditions of the household members: the work intensity and the job instability. Work intensity refers to the

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<sup>5</sup> The question reads as: "Thinking of your household's total income, is your household able to make ends meet, namely, to pay for its usual necessary expenses?"

number of full-time equivalent workers within the household. Since we select only household with one or two workers, this variable can take value 0.5 when there is only one part-time worker (479 cases), value 1 when there is one full-time worker (4,075 cases) or in the very few cases (56 cases) in which there are two part-time workers, value 1.5 when there is one full-time worker and one part-time worker (1,121 cases) and value 2 in case of two full-time workers (2,276 cases). As a robustness check, we estimate the models using a more conservative and parsimonious definition of work intensity based on the number of workers in the household (1 or 2). Results (see Table A1 in the Appendix) are highly consistent with those discussed in the next Section.

Work instability is defined as the ratio between workers with temporary contracts and the total number of workers within the household. This indicator can take a value 0 if all working members are employed with permanent contracts (6,808 cases), 0.5 if one out of the two working household member is employed with a temporary contract (601 cases) or 1 if one out of one or two out of two working members have a temporary contract (598 cases). We further adopted a second measure of work instability: the share of labour income that comes from temporary jobs, by defining a continuous variable that ranges between 0 and 100%.

*Control variables.* The models are controlled for several potential confounders: highest educational level household among household members (primary, lower secondary, upper secondary, and tertiary education); age of the oldest member (18-25, 26-45 or 46-64 years old); type of household defined with the number of adult members (single, couple, or lone-parent); number of components (from 1 to 5); presence of children below age 15 (yes or not); number of workers in the household (one or two), number of self-employed workers (zero, one or two); home ownership (yes or not), high degree of urbanization (yes or not), geographical area of residence (North, Centre or South). Table 1 shows the distribution of all variables in the final sample.

[Table 1 here]

### 5.3 Methods

The association between subjective and objective in-work poverty is estimated by a set of binomial logistic regression models. The degree of objective poverty as defined above is considered in interaction with work intensity and job instability. Results will be shown as average marginal effects (AME) at different levels of work intensity and job stability. AME can be interpreted as the average probability for each category (Bartus, 2005). Tables with the full results are available in the Appendix.

## 6. Results

### 6.1. Descriptive findings

Having a job is not a sufficient condition to avoid poverty. Table 2 shows descriptive evidence for the distribution of several income-related variables across different levels of objective (in-work) poverty. 16.5% of households in which at least one member is employed are poor according to this monetary indicator of poverty, i.e. they rely on an equivalent disposable total income that is below 60% of the median income of the whole population. The majority of these household (10.9% over the total sample) experience severe poverty, being their equalized household income 464.9 Euros on average. Interestingly, the within-group variability in household income for different levels of objective poverty is higher among the severely poor and the non-poor—as demonstrated by the standard deviation values.

In line with previous findings in the literature on poverty, subjective in-work poverty is positively correlated with objective poverty but the two indicators do not fully overlap. In our

sample of workers, around 61.5% of those who are (severely) poor also feel poor. A not negligible share of those who live in vulnerable and non-poor household (47.4 and 41.1% respectively) experience subjective poverty.

[Table 2 here]

Table 3 shows the association between the main indicators for work intensity and job instability and objective in-work poverty. Overall, the probability of experiencing monetary poverty for working households decreases as the number of employed members increases.

But also work stability matters: households in which none of the workers hold a temporary contract are less likely to be poor.

[Table 3 here]

### *6.2 Subjective poverty: the role of household's work intensity*

The first set of logistic regression models estimate the probability of feeling poor given different degrees of objective monetary poverty by household's work intensity. Figure 3 shows the predicted average probability of feeling poor by levels of monetary poverty (full results in tabular form are reported in the Appendix). Each line refers to a different degree of work intensity.

Work intensity does not affect the probability of subjective (in-work) poverty: the average estimated probabilities are not statistically different from each other. Consistently with descriptive analysis reported in Table 1, income level matters more than the number of full-time equivalent workers in the household. Results are consistent when using a more conservative indicator of work intensity, i.e. the number of household members who are employed with no distinction between full-time and part-time contracts (see models 2 in Table A1 in the Appendix).

[Figure 3 here]

### *6.3 Subjective poverty: the role of household's job instability*

Conversely, when we look at work instability, the likelihood of expressing subjective poverty for different levels of monetary poverty depends on the number of precarious workers in the household. In particular, in Figure 4, when we compare the households in which none of the working member holds a temporary contract (continuous dark line) with the households in which all working members have a permanent contract (short-dashed line), we observe that the difference between the two groups is always significant. More in detail, "more precarious" households are more likely to feel poor (subjective poverty) compared to households with the same level of income, but with no precarious workers. Households in which half of the members have a temporary job lie in between. Therefore, rely on a stable source of labour income seems to be more important in making ends meet and in ensuring consumption of fundamental goods.

The estimates for the probability of feeling poor for non-poor households (those with an equivalent income higher lower than the median threshold, but higher than 70% of the median income) are highly statistically significant in all cases compare to (i) households with the same income level with only permanent workers and (ii) poorer households but with all permanent workers.



This last result indicates that households could better plan consumption and keeping a constant standard of living when they can rely on a stable labour income.

[Figure 4 here]

Finally, we investigate whether it is not the ratio of working members with temporary contracts in the household that matters, but the ratio of labour income that comes from temporary jobs.

Figure 5 shows how the probability of feeling poor changes with the percentage of income from precarious jobs. Again differences are significant for the two extreme cases only. Households in which the labour income is totally secure (from permanent works) are significantly less likely to experience subjective poverty compare to the households in which more than 75% of labour income comes from precarious work. Differences are not significant for household in intermediate groups (when between 10 and 75% of labour income comes from temporary works), but this is likely to be driven by the small size of these subgroups. Nevertheless, the trend in Figure 5 shows a clear path: as income stability decreases, the probability of feeling poor increases. We can interpret this result as a hint that households can manage they consumption expenditure in order to make ends meet when most of their income comes from stable sources.

[Figure 5 here]

## **7. Conclusions**

The paper analyses the relationship between household subjective and objective in-work poverty and how this relationship is affected by households' work intensity and job instability. Our results confirmed that having a job is not a sufficient condition to avoid poverty, in terms of both monetary objective and subjective poverty. Moreover workers in poor households do not always feel poor and non-poor workers sometimes feel to have less than what they need. These discrepancies are associated with the household members' stability of the jobs and the earnings. Households could better plan consumption and keeping a constant standard of living when they can rely on a stable labour income. On the contrary, no statistically significant differences exist by work intensity in the relationship between subjective poverty and different degrees of objective poverty.

These findings have relevant policy implications. Governments should promote not only policies to increase employment tout court: attention should be paid in reducing work instability to increase population well-being, which might have long lasting consequences in other life domains. The spill-over effects of fostering adequate level of household consumption households will also serve the purpose of supporting the economic growth.

## References

- Alderman, H. and Paxson, C. H. (1994) 'Do the Poor Insure? A Synthesis of the Literature on Risk and Consumption in Developing Countries'. In Bacha, E. L. (Ed), *Do the Poor Insure? A Synthesis of the Literature on Risk and Consumption in Developing Countries*, London: Palgrave Macmillan UK, pp. 48-78.
- Atkinson, A. B., Guio, A. C. and Marlier, E. (2017) *Monitoring social inclusion in Europe*, Luxembourg: Publications Office of the European Union.
- Ayllón, S. and Gábos, A. (2017) 'The Interrelationships between the Europe 2020 Poverty and Social Exclusion Indicators', *Social Indicators Research* 130: 1025-1049.
- Barbieri, P., Cutuli, G. and Scherer, S. (2018) 'In-work poverty in Southern Europe: the case of Italy'. In Lohmann, H. and Marx, I. (Eds), *In-work poverty in Southern Europe: the case of Italy*, Cheltenham: Edward Elgar Publishing, pp.
- Bartus, T. (2005) 'Estimation of Marginal Effects Using Margeff', *Stata Journal* 5: 1–23.
- Berloffa, G., Filandri, M., Matteazzi, E., Nazio, T., Negri, N., O'Reilly, J., Villa, P. and C., Z. (2015) 'Work-poor and work-rich families: Influence on youth labour market outcomes', *STYLE Working Papers, CROME STYLE WP8.1, University of Brighton, Brighton*.
- Berthoud, R. and Bryan, M. (2011) 'Income, Deprivation and Poverty: A Longitudinal Analysis', *Journal of Social Policy* 40: 135-156.
- Boeri, T. and Brandolini, A. (2005) 'The Age of Discontent: Italian Households at the Beginning of the Decade', *IZA Discussion Paper* 1530.
- Buttler, F. (2013) *What determines subjective poverty, An evaluation of the link between relative income poverty measures and subjective economic stress within the EU*, Oldenburg: DFG Research Unit Horizontal Europeanization.
- Castilla, C. (2011) 'Subjective Well-being and Reference Dependence: Income Over Time, Aspirations and Reference Groups', *UNU-WIDER Working Paper* 76.
- Colasanto, D., Kapteyn, A. J. and van der Gaag, J. (1984) 'Two subjective definitions of poverty: Results from the Wisconsin basis needs study', *Journal of Human Resources* 19: 127-138.
- Crettaz, E. (2013) 'A state-of-the-art review of working poverty in advanced economies: theoretical models, measurement issues and risk groups', *Journal of European Social Policy* 23: 347–362.
- Crettaz, E. and Bonoli, G. (2011) 'Worlds of Working Poverty: National Variations in Mechanisms'. In Fraser, N., Gutiérrez, R. and Peña-Casas, R. (Eds), *Worlds of Working Poverty: National Variations in Mechanisms*, New York: Palgrave Macmillan, pp.
- Crettaz, E. and Suter, C. (2013) 'The Impact of Adaptive Preferences on Subjective Indicators: An Analysis of Poverty Indicators', *Social Indicators Research* 114: 139-152.
- Eurofound (2017) *In-work poverty in the EU*, Luxembourg: Publications Office of the European Union.
- Eurostat (2013) *Household composition, poverty and hardship across Europe*, Luxembourg: Publications Office of the European Union.
- Fana, M., Guarascio, D. and Cirillo, V. (2015) 'Labour market reforms in Italy: evaluating the effects of the Jobs Act', *ISIGrowth Working Paper* 5.
- Filandri, M., Negri, N. and Parisi, T. (2013) 'Reddito e percezione della sua adeguatezza la relazione è cambiata con la crisi?', *Cambio. Rivista sulle trasformazioni sociali*, 5 5: 183-194.
- Filandri, M. and Struffolino, E. (2013) 'Working Poor. Lavoratori con basso salario o occupati che vivono in famiglie povere? Un'analisi del fenomeno in Italia prima e dopo la crisi', *Sociologia del Lavoro* 121: 190-205.
- Gallino, L. (2011) *Finanzcapitalismo*, Torino: Einaudi.
- Goerne, A. (2011) 'A Comparative Analysis of In-Work Poverty in the European Union'. In Fraser, N., Gutiérrez, R. and Peña-Casas, R. (Eds), *A Comparative Analysis of In-Work Poverty in the European Union*, New York: Palgrave Macmillan, pp. 15-45.
- Guagnano, G., Santarelli, E. and Santini, I. (2016) 'Can Social Capital Affect Subjective Poverty in Europe? An Empirical Analysis Based on a Generalized Ordered Logit Model', *Social Indicators Research* 128: 881–907.

- Guagnano, G., Santarelli, E. and Santini, I. (2016) 'Can Social Capital Affect Subjective Poverty in Europe? An Empirical Analysis Based on a Generalized Ordered Logit Model', *Social Indicators Research* 128: 881-907.
- Hagenaars, A. and de Vos, K. (1988) 'The Definition and Measurement of Poverty', *The Journal of Human Resources* 23: 211-221.
- Hall, R. E. (1978) 'Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence', *Journal of Political Economy* 86: 971-987.
- Kalugina, E. (2013) 'The Working Poor'. In Hellier, J. and Chusseau, N. (Eds), *The Working Poor*, New York: Palgrave Macmillan, pp. 76-104.
- Kauhanen, M. and Nätti, J. (2015) 'Involuntary Temporary and Part-Time Work, Job Quality and Well-Being at Work', *Social Indicators Research* 120: 783-799.
- Kim, S.-G. (2016) 'What Have We Called as "Poverty"? A Multidimensional and Longitudinal Perspective', *Social Indicators Research* 129: 229-276.
- Kuivalainen, S. (2014) 'Subjective Poverty'. In Michalos, A. C. (Ed), *Subjective Poverty*, Dordrecht: Springer Netherlands, pp. 6432-6434.
- Lohmann, H. and Marx, I. (2008) 'The Different Faces of In-Work Poverty Across Welfare State Regimes'. In Andreß, H. J. and Lohmann, H. (Eds), *The Different Faces of In-Work Poverty Across Welfare State Regimes*, Cheltenham: Edward Elgar Publishing, pp. 17-46.
- Lohmann, H. and Marx, I. (Eds) (2018) *Handbook on In-Work Poverty*, Cheltenham: Edward Elgar Publishing.
- Lucchini, M. and Sarti, S. (2005) 'Il benessere e la deprivazione delle famiglie italiane', *Stato e mercato* 74: 231-265.
- Mahmood, T., Yu, X. and Klasen, S. (2018) 'Do the Poor Really Feel Poor? Comparing Objective Poverty with Subjective Poverty in Pakistan', *Social Indicators Research*.
- Mayer, S. and Jencks, C. (1988) 'Poverty and distribution of material hardship', *Journal of Human Resources* 24: 88-114.
- Meyer, B. D. and Sullivan, J. X. (2012) 'Identifying the Disadvantaged: Official Poverty, Consumption Poverty, and the New Supplemental Poverty Measure', *Journal of Economic Perspectives* 26: 111-136.
- Muffels, R. and Fouarge, D. (2003) 'The Role of European Welfare States in Explaining Resources Deprivation', *EPAG Working Papers* 41.
- Negri, N. and Saraceno, C. (2003) *Povert  e vulnerabilit  sociale in aree sviluppate*, Roma: Carocci.
- Nolan, B. and Whelan, C. T. (1996) *Resources, Deprivation and Poverty*, Oxford: Clarendon Press.
- Nolan, B. and Whelan, C. T. (2009) 'Using non-monetary deprivation indicators to analyse poverty and social exclusion in rich countries: Lessons from europe?', *Journal of Policy Analysis and Management* 29: 305-325.
- Pradhan, M. and Ravallion, M. (2000) 'Measuring Poverty using Qualitative Perceptions of Consumption Adequacy', *Review of Economics and Statistics* 82: 462-471.
- Ravallion, M. (2012) 'Poverty Lines Across the World'. In Jefferson, P. N. (Ed), *Poverty Lines Across the World*, Oxford: Oxford University Press, pp.
- Ravallion, M. (2014) 'Poor, or Just Feeling Poor? On Using Subjective Data in Measuring Poverty'. In Clark, A. E. and Senik, C. (Eds), *Poor, or Just Feeling Poor? On Using Subjective Data in Measuring Poverty*, Oxford: Oxford University Press, pp. 140-178.
- Ravallion, M. and Chen, S. (2009) 'Weakly Relative Poverty', *Policy Research Working Paper* 4844.
- Ravallion, M. and Lokshin, M. (2002) 'Self-rated economic welfare in Russia', *European Economic Review* 46: 1453-1473.
- Scherer, S. (2009) 'The Social Consequences of Insecure Jobs', *Social Indicators Research* 93: 527-547.
- Siposn  N ndori, E. (2011) 'Subjective Poverty and Its Relation to Objective Poverty Concepts in Hungary', *Social Indicators Research* 102: 537-556.
- Stanovnik, T. and Verbi , M. (2004) 'Perception of Income Satisfaction: An Analysis of Slovenian Households', *EconWPA*.
- Strengmann-Kuhn, W. (2000) 'Theoretical Definition and Empirical Measurement of Welfare and Poverty: A Microeconomic Approach', *26th IARIW Conference*.
- Tentschert, U., Till, M. and Redl, J. (2000) 'Income Poverty and Minimum Income Requirements in the EU14', *BIEN Congress, Berlin*.

- Van Praag, B., Goedhart, T. and Kapteyn, A. (1980) 'The Poverty Line--A Pilot Survey in Europe', *The Review of Economics and Statistics* 62: 461-465.
- Van Praag, B. M. S. and Ferrer-i-Carbonell, A. (2008) 'A Multidimensional Approach to Subjective Poverty'. In Kakwani, N. and Silber, J. (Eds), *A Multidimensional Approach to Subjective Poverty*, London: Palgrave Macmillan UK, pp. 135-154.
- Whelan, C. T., Layte, R., Maître, B. and Nolan, B. (2001) 'Income, Deprivation and Economic Strain. An Analysis of the European Community Household Panel', *European Sociological Review* 17: 357-372.
- Whelan, C. T. and Maître, B. (2005) 'Vulnerability and multiple deprivation perspectives on economic exclusion in Europe: A latent class analysis', *European Societies* 7: 423-450.
- Whelan, C. T. and Maître, B. (2014) 'The Great Recession and the changing distribution of economic vulnerability by social class: The Irish case', *Journal of European Social Policy* 24: 470-485.

## Tables

**Table 1: Descriptives statistics**

Sample distribution	% - mean (s.d.)
<i>Objective poverty</i>	
Severely poor	10.8
Poor	5.7
Vulnerable	7.0
Non-poor	22.0
Wealthy	54.6
<i>High degree of urbanization</i>	
Low	60.6
High	39.4
<i>Presence of children &lt;15</i>	
No	51.9
Yes	48.1
<i>Household members</i>	
1	23.6
2	18.4
3	25.5
4	27.0
5	5.5
<i>Nr. of self-employed</i>	
None	71.4
One	24.8
Two	3.8
<i>Household composition. adult members</i>	
Single	23.6
Couple	66.8
Lone-parent	9.6
<i>Highest educational level</i>	
Up to lower secondary	13.9
Upper secondary	53.4
Tertiary	32.7
<i>Age of the holder household member</i>	
<35	9.0
35-44	32.5
45-64	58.5
<i>Home-ownership</i>	
No	30.9
Yes	69.1
<i>Geographical area of residence</i>	
North	52.3
Center	23.4
South and Islands	24.3
<i>Nr. of workers in the household</i>	
1	57.0
2	43.0
<i>Work intensity: number of full/part-time workers</i>	
1 part-time	6.0
1 full-time	51.6
1 full-time, 1 part-time	14.0
2 full-time	28.4
<i>Share of workers with unstable job</i>	
0%	85.1
50%	7.5
100%	7.4
<i>Share of labour income that comes from temporary jobs</i>	0.10 (0.28)
<i>N</i>	7,922

Source: Eu-Silc 2014, authors' calculations

**Table 2: Summary statistics of income-related variables by level of objective in-work poverty**

	<i>Upper threshold</i>	<i>Average income</i>	<i>Standard deviation of income</i>	<i>% of household</i>	<i>% of subjective in-work poverty</i>	<i>N</i>
<i>Objective in-work poverty</i>						
Severely poor	705.8	466.5	184.4	10.8	65.9	853
Poor	846.3	780.1	38.6	5.7	58.0	448
Vulnerable	988.0	919.1	39.7	7.0	47.4	555
Non-poor	1,411.4	1,198.4	122.8	22.0	41.1	1740
Wealthy	>1,411.4	2,206.5	794.0	54.6	17.1	4326
Total sample		1,626.9	892.1	100	32.2	7,922

Note: Income is shown as equalized monthly income (Euros)

Source: Eu-Silc 2014, authors' calculations

**Table 3: Summary statistics of work intensity and job instability intensity by level of objective in-work poverty**

		<i>Objective (in-work) poverty</i>					
		<i>Severely poor</i>	<i>Poor</i>	<i>Vulnerable</i>	<i>Non-poor</i>	<i>Wealthy</i>	<i>Total</i>
<i>Work intensity</i>	One part-time worker	41.1	12.8	9.4	23.1	13.6	100
	One full-time worker*	13.5	7.9	9.1	24.4	45.1	100
	One full-time and one part-time	3.9	2.8	6.0	24.9	62.5	100
	Two full-time workers	2.7	1.5	3.2	15.9	76.8	100
<i>Job instability</i>	None is unstable	9.7	5.3	6.5	21.4	57.1	100
	50% (one out of two is unstable)	6.1	4.0	7.9	25.7	56.3	100
	100% (one out of one or two out of two is/are unstable)	27.7	11.6	12.4	24.3	24.0	100

\*This group (N. 4,135) includes 56 households in which two members work part-time, see Section "Data and Methods".

Note: Income is shown as equalized monthly income

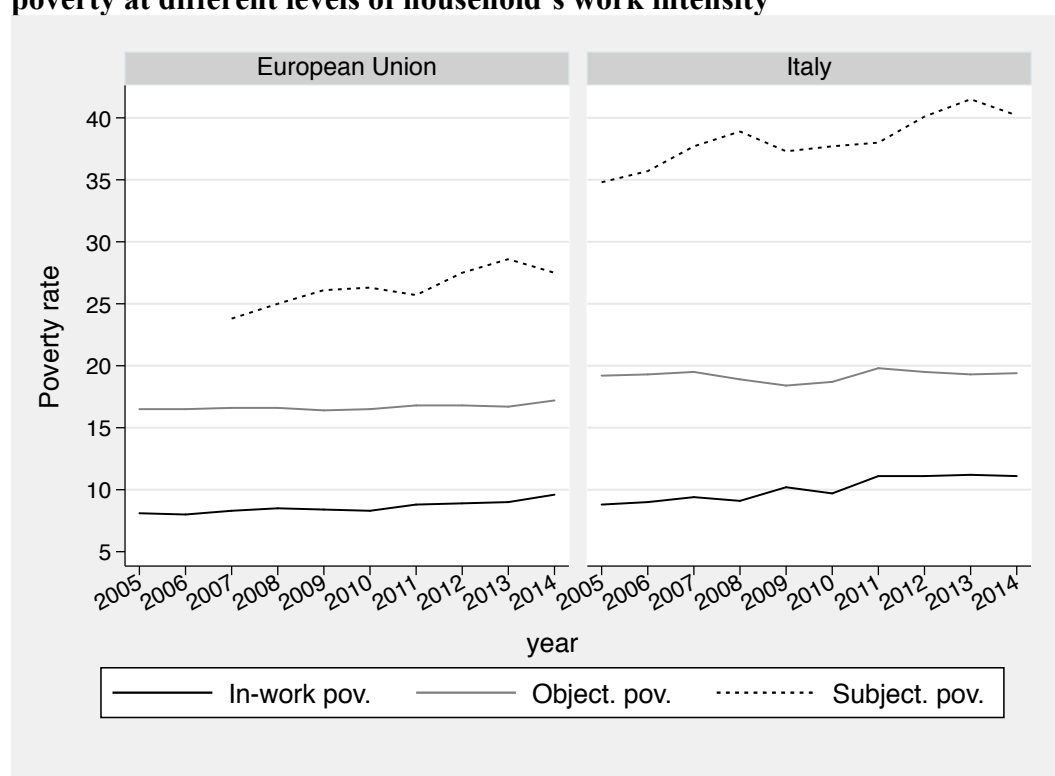
Source: Eu-Silc 2014, authors' calculations

## Figures

**Figure 1: Classification of poverty indicators**

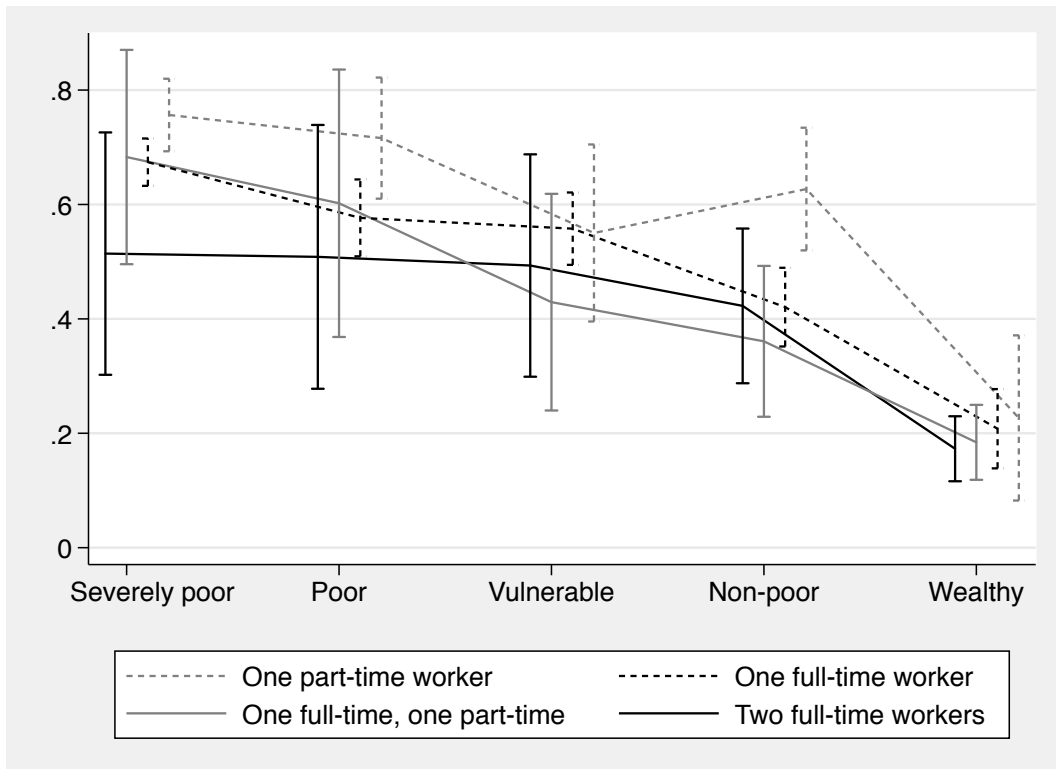
<i>Approach</i>	<i>Monetary</i>	<i>Non-monetary</i>
<i>Objective</i>	Low income level	Deprivation of material goods
<i>Subjective</i>	Inability to make ends meet	Feeling poor (in general)

**Figure 2: Predicted probabilities for subjective (in-work) poverty by objective (in-work) poverty at different levels of household's work intensity**



Source: Eurostat data, authors' calculations

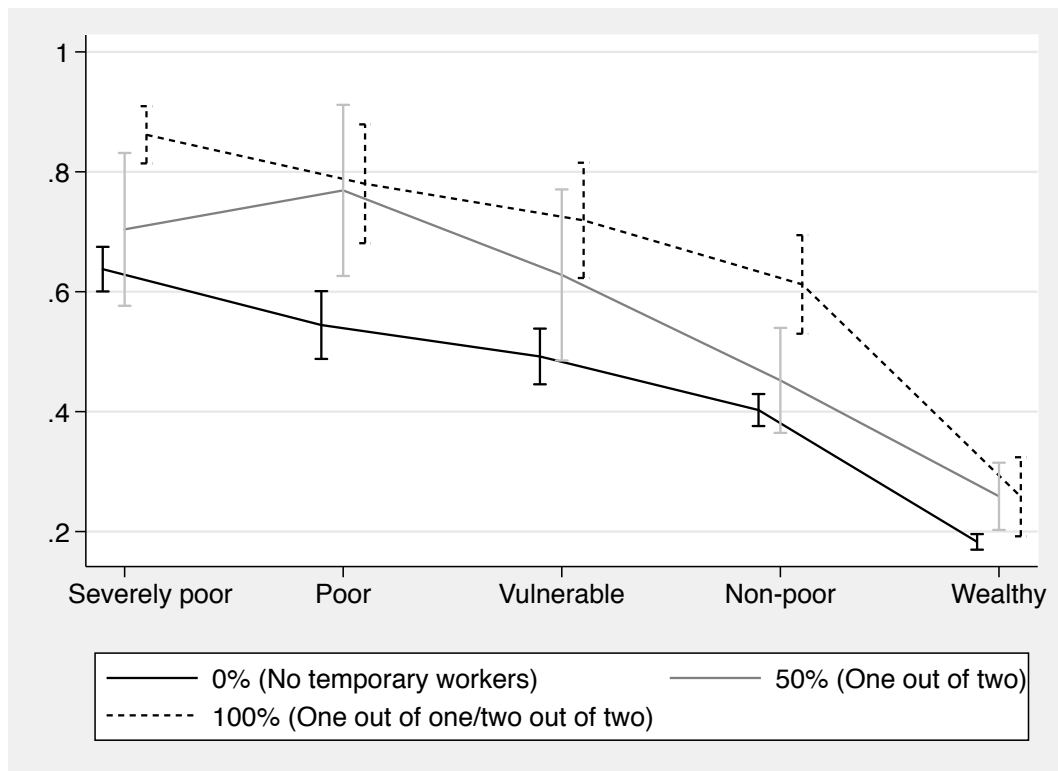
**Figure 3: Predicted probabilities for subjective (in-work) poverty by objective (in-work) poverty at different levels of household's work intensity**



Note: Predictions from model 1 in Table A1 in the Appendix  
 Source: Eu-Silc 2014, authors' calculations (weighted)

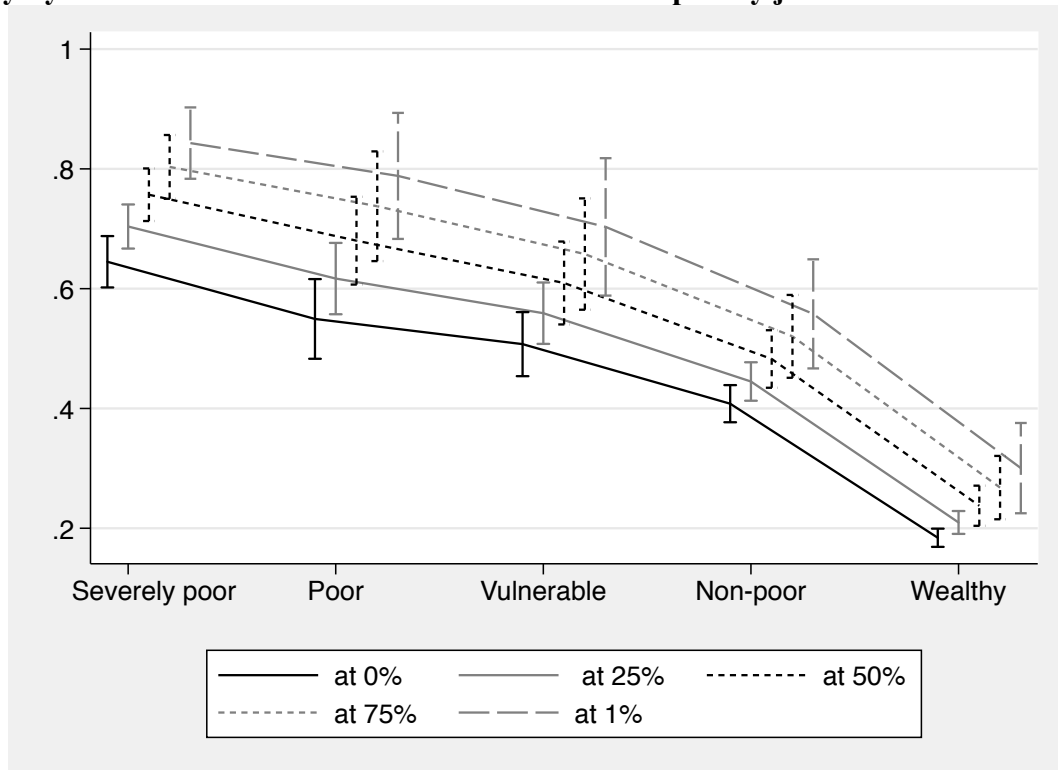


**Figure 4: Predicted probabilities for subjective (in-work) poverty by objective (in-work) poverty at different levels of household job instability**



Note: Predictions from model 1 in Table A2 in the Appendix  
 Source: Eu-Silc 2014, authors' calculations (weighted)

**Figure 5: Predicted probabilities for subjective (in-work) poverty by objective (in-work) poverty by share of labour income that comes from temporary jobs**



Note: Predictions from model 2 in Table A2 in the Appendix  
 Source: Eu-Silc 2014, authors' calculations, weighted

## Appendix

**Table A1: Logistic regression models for the likelihood of subjective (in-work) poverty by different levels of objective (in-work) poverty at different levels of work intensity. Coefficients and standard errors (in parentheses).**

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>
	Coeff.	Coeff.	Coeff.
	(Fig.1)	(robustness check)	(robustness check)
<i>Objective poverty (ref.: severely poor)</i>			
Poor	-0.048 [0.546]	-2.047** [0.668]	-0.401* [0.175]
Vulnerable	-0.032 [0.476]	-0.16 [0.498]	-0.610*** [0.163]
Non-poor	-0.179 [0.381]	-1.119** [0.412]	-0.922*** [0.132]
Wealthy	-1.118** [0.364]	-1.767*** [0.399]	-1.724*** [0.133]
<i>High degree of urbanization (ref.: low)</i>			
	0.132 [0.069]	0 [0.075]	0.122 [0.069]
<i>Presence of children &lt;15(ref.: no)</i>			
	-0.246* [0.102]	-0.245* [0.112]	-0.239* [0.103]
<i>Household members (ref.: one)</i>			
2	0.633*** [0.141]	0.778*** [0.148]	0.641*** [0.139]
3	0.902*** [0.178]	0.809*** [0.190]	0.895*** [0.177]
4	0.947*** [0.201]	0.914*** [0.213]	0.935*** [0.201]
5	1.148*** [0.237]	1.098*** [0.248]	1.136*** [0.236]
<i>Nr. of self-employed (ref.: none)</i>			
One	-0.377*** [0.084]	-0.323*** [0.093]	-0.388*** [0.084]
Two	-0.535* [0.218]	-0.335 [0.221]	-0.576** [0.223]
<i>Household composition, adult members (ref.: single)</i>			
Couple	-0.215 [0.131]	-0.191 [0.138]	-0.255* [0.129]
Lone-parent	0 [0.131]	0 [0.138]	0 [0.129]
<i>Highest educational level (ref.: primary)</i>			
Lower secondary	-0.440*** [0.098]	-0.605*** [0.099]	-0.428*** [0.098]
Upper secondary	-1.012*** [0.112]	-1.338*** [0.119]	-0.998*** [0.112]
Tertiary			
<i>Age of the holder household member (ref.: &lt;35)</i>			
35-44	0.079 [0.130]	0.032 [0.141]	0.081 [0.128]
45-64	0.07 [0.128]	0.078 [0.138]	0.075 [0.127]
<i>Home-ownership (ref.: no)</i>			
	-0.518*** [0.075]	-0.933*** [0.079]	-0.533*** [0.075]
<i>Geographical area of residence (ref.: North)</i>			
Center	0.277**	0.096	0.272**

South and Islands	[0.086] 0.505***	[0.097] 0.468***	[0.086] 0.511***
<i>Nr. of workers in the household (ref.: One)</i>	[0.083]	[0.090]	[0.083]
Two	-0.084 [0.497]	-0.13 [0.475]	-0.48 [0.263]
<i>Work intensity: number of full/part-time workers (ref: 1 part-time)</i>			
1 full-time	0.773 [0.503]	0.704 [0.547]	
1 full-time, 1 part-time	0.728 [0.610]	0.193 [0.611]	
2 full-time	1.168 [0.646]	0.746 [0.653]	
<b>Interaction terms</b>			
<i>Objective poverty*Work intensity(1)</i>			
Vulnerable*1 part-time	-0.364 [0.812]	1.617 [0.931]	
Non-poor*1 part-time	-0.433 [0.580]	1.559* [0.697]	
Wealthy*1 part-time	-0.213 [0.673]	1.289 [0.789]	
Vulnerable*1 full-time	-1.049 [0.679]	-1.284 [0.716]	
Non-poor*1 full-time	-0.452 [0.507]	-0.368 [0.530]	
Wealthy*1 full-time	-0.924 [0.653]	-0.717 [0.680]	
Vulnerable*1 full-time, 1 part-time	-1.05 [0.552]	-0.056 [0.597]	
Non-poor*1 full-time, 1 part-time	-0.738 [0.407]	0.137 [0.439]	
Wealthy*1 full-time, 1 part-time	-0.282 [0.500]	0.318 [0.546]	
Vulnerable*2 full-time	-0.693 [0.529]	-0.676 [0.580]	
Non-poor*2 full-time	-0.492 [0.387]	0.062 [0.423]	
Wealthy*2 full-time	-0.815 [0.621]	0.428 [0.593]	
<i>Objective poverty*Work intensity(2)</i>			
Poor*2 workers			-0.221 [0.479]
Vulnerable*2 workers			0.187 [0.365]
Non-poor*2 workers			0.214 [0.294]
Wealthy*2 workers			0.24 [0.281]
Constant	0.008 [0.630]	0.769 [0.632]	0.854*** [0.177]
<i>N</i>	7,922	7,922	7,922

Note: Model 2 uses an alternative measure of subjective poverty. Are defined poverty in subjective terms those households reporting not to be able to afford two out of three of the following items: one week annual holiday away from home; a meal with meat, chicken, fish every second day; to face unexpected financial expenses.

Source: Eu-Silc 2014. authors' calculations (weighted)

**Table A2: Logistic regression models for the likelihood of subjective (in-work) poverty by different levels of objective (in-work) poverty at different levels of job instability. Coefficients and standard errors (in parentheses).**

	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>
	Coeff.	Coeff.	Coeff.	Coeff.
	(Fig.2)	(robustness check)	(Fig.3)	(robustness check)
<i>Objective poverty (ref.: severely poor)</i>				
Poor	-0.419*	-0.599**	-0.440*	-0.598***
	[0.182]	[0.184]	[0.180]	[0.181]
Vulnerable	-0.538***	-0.616***	-0.520***	-0.576***
	[0.163]	[0.164]	[0.158]	[0.160]
Non-poor	-0.729***	-0.985***	-0.760***	-0.984***
	[0.133]	[0.136]	[0.130]	[0.133]
Wealthy	-1.453***	-1.767***	-1.506***	-1.785***
	[0.133]	[0.144]	[0.130]	[0.140]
<i>High degree of urbanization (ref.: low)</i>				
	0.142*	0.005	0.138*	-0.002
	[0.069]	[0.075]	[0.069]	[0.075]
<i>Presence of children &lt;15(ref.: no)</i>				
	-0.196	-0.194	-0.203*	-0.201
	[0.103]	[0.112]	[0.103]	[0.112]
<i>Household members (ref.: one)</i>				
2	0.662***	0.816***	0.665***	0.804***
	[0.140]	[0.148]	[0.140]	[0.147]
3	0.937***	0.862***	0.927***	0.833***
	[0.178]	[0.191]	[0.177]	[0.190]
4	0.983***	0.965***	0.975***	0.938***
	[0.202]	[0.216]	[0.202]	[0.216]
5	1.154***	1.100***	1.156***	1.079***
	[0.240]	[0.246]	[0.240]	[0.247]
<i>Nr. of self-employed (ref.: none)</i>				
One	-0.241**	-0.213*	-0.303***	-0.279**
	[0.084]	[0.094]	[0.084]	[0.093]
Two	-0.418	-0.252	-0.466*	-0.272
	[0.224]	[0.223]	[0.222]	[0.219]
<i>Household composition, adult members (ref.: single)</i>				
Couple	-0.238	-0.248	-0.24	-0.243
	[0.129]	[0.136]	[0.128]	[0.135]
Lone-parent	0	0	0	0
	[.]	[.]	[.]	[.]
<i>Highest educational level (ref.: primary)</i>				
Lower secondary	-0.438***	-0.593***	-0.442***	-0.594***
	[0.098]	[0.100]	[0.097]	[0.099]
Upper secondary	-1.023***	-1.336***	-1.016***	-1.323***
	[0.113]	[0.120]	[0.112]	[0.120]
Tertiary				
<i>Age of the holder household member (ref.: &lt;35)</i>				
35-44	0.104	0.05	0.102	0.052
	[0.130]	[0.145]	[0.130]	[0.143]
45-64	0.137	0.154	0.119	0.132
	[0.129]	[0.143]	[0.129]	[0.142]
<i>Home-ownership (ref.: no)</i>				
	-0.517***	-0.926***	-0.503***	-0.911***
	[0.075]	[0.079]	[0.076]	[0.079]
<i>Geographical area of residence (ref.: North)</i>				
Center	0.260**	0.064	0.257**	0.067
	[0.086]	[0.096]	[0.086]	[0.096]
South and Islands	0.483***	0.438***	0.471***	0.430***
	[0.083]	[0.090]	[0.083]	[0.090]
<i>Nr. of workers in the household (ref.: One)</i>				
Two	-0.396***	-0.342**	-0.378***	-0.362***
	[0.100]	[0.112]	[0.092]	[0.102]

<i>Share of workers with unstable job (ref.: 0%)</i>				
Instability: 50%	0.326	-0.411		
	[0.416]	[0.432]		
Instability: 100%	1.355***	0.880**		
	[0.278]	[0.273]		
<i>Share of labour income that comes from temporary jobs (ref.:0%)</i>			1.163***	0.668*
			[0.266]	[0.263]
<b>Interaction terms</b>				
<i>Objective poverty*Share of workers with unstable job</i>				
Poor*50%	0.77	1.24		
	[0.671]	[0.724]		
Poor*100%	-0.192	-0.224		
	[0.485]	[0.453]		
Vulnerable*50%	0.27	0.982		
	[0.577]	[0.587]		
Vulnerable*100%	-0.315	-0.23		
	[0.429]	[0.474]		
Non-poor*50%	-0.11	0.52		
	[0.469]	[0.487]		
Non-poor*100%	-0.446	0.244		
	[0.361]	[0.364]		
Wealthy*50%	0.14	0.825		
	[0.450]	[0.467]		
Wealthy*100%	-0.893*	-0.097		
	[0.355]	[0.359]		
<i>Objective poverty*Share of workers with unstable job</i>				
Poor*25%			0.03	-0.008
			[0.458]	[0.428]
Vulnerable*50%			-0.272	-0.148
			[0.417]	[0.468]
Non-poor*-75%			-0.517	0.033
			[0.341]	[0.342]
Wealthy*100%			-0.49	0.118
			[0.333]	[0.338]
Constant	0.474*	0.866***	0.554**	0.938***
	[0.186]	[0.193]	[0.184]	[0.189]
<i>N</i>	7,922	7,922	7,922	7,922

Note: Model 2 and model 4 use an alternative measure of subjective poverty. Are defined poverty in subjective terms those households reporting not to be able to afford two out of three of the following items: one week annual holiday away from home; a meal with meat, chicken, fish every second day; to face unexpected financial expenses.

Source: Eu-Silc 2014, authors' calculations (weighted)