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Mapping and measuring the phenomenon of precariousness in Cyprus: challenges and implications

**Petros Kosmas, Antonis Theocharous, Elias
Ioakimoglou, Petros Giannoulis, Leonidas Vatikiotis,
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ABSTRACT

This research study utilises a mixed design model to empirically measure and address the phenomenon of precarious work and precariousness in Cyprus. For the purposes of this study precariousness is perceived as a condition in which people face specific dangers, risk of disease or accident, material deprivation and poverty. Furthermore, as a result of precarious employment, insufficient income and lack of property, these individuals are not able to cope or be exposed to prolonged periods of unemployment and its subsequent social risks and dangers.

By analysing data from the EU-SILC (2020) for Cyprus, the characteristics of precarious employees were identified, along with the factors contributing to precariousness. The majority of precarious workers in Cyprus were women, immigrants and young people. Following this, precarity was examined as a condition in which precariousness and economic vulnerability intersect and interact. Precarious workers accounted for 9,5% of all employees in 2019, whereas those in precarity (i.e., precarious and economically vulnerable) amounted for 4,4% of all employees. The present research and its empirics contribute to the discussion of the phenomenon of precarious work and precariousness by introducing new variables and introducing new empirical approaches to the examination of precarious employment and precariousness. The results of this study are intended to provide stakeholders with an enhanced understanding of the phenomenon which will ultimately lead to new theoretical and policy avenues towards its reduction and elimination.

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1. Introduction

Work in precarious circumstances can take many forms and it is often characterized by in-work poverty as income insecurity (Barbier, 2004; Rodgers and Rodgers, 1989), as well as job-insecurity related to the nature of many types of employment relations (Olsthoorn, 2014; Kalleberg, 2011). In this context, the present study explores precarious work and precariousness according to a framework that encompasses employment relationships that provide low levels of control over work, low income and low social protection.

This study provides an empirical investigation of the rise of precarious work and the extent of precariousness in the labour market of Cyprus. In order to address this phenomenon two indicators are constructed and tested in Cyprus. To ensure that the results are reliable and valid, those indicators are consistent with the relevant theory (Olsthoorn, 2014; Kalleberg, 2011; Pitrou, 1978). Indicator 1 examines precariousness by focusing on the labour market and Indicator 2 examines economic vulnerability as a social reproduction process. Further, a synthetic indicator is constructed which measures precarity as a condition of precariousness intersecting with economic vulnerability. Using this integrated approach, three (3) research questions have been explored in relation to: 1) the profile and mapping of precarious workers in the labour market, 2) the factors influencing their risk of precariousness, and 3) if and where economic vulnerability and precarious work intersect.

Initially, an overview of the current debates on precarious work and precariousness is provided, as well as the challenges inherent in applying the methodological approach and addressing the phenomenon empirically. As a result of using a methodological approach in the current study, answers to the research questions posed are being provided. Utilising microdata from the EU-SILC (2020), the individuals who meet the above-mentioned criteria of precariousness are identified and their main characteristics are described (age, gender, level of education, work experience, job specialization, employment relationship etc.). Classification Tree Analysis (CTA) is used to describe the internal structure of precarious work and identify factors that affect labour income and

the probability of workers experiencing precariousness. Utilising Linear Regression Analysis (LRA), the factors contributing to low wages of precarious workers are identified. Following the estimation of the indicator of precariousness and the identification of precarious workers. Logistic Regression Analysis (LoRA) is used to estimate the indicators against worker characteristics (level of education, work experience, etc.) in order to determine which factors are associated with precariousness among workers. Additionally, CTA have been utilised to capture precarious workers as being in a condition of precarity.

Considering the complexity of the phenomena under study, a focus group was conducted to elaborate and investigate further research questions and fill in any possible research gaps from the previous empirical analysis. Among the primary areas of investigation were the characteristics of precarious workers in Cyprus, the role of the state and the labour unions. An overview of these findings is presented in the relevant chapter at the end of the third section.

The paper concludes with a discussion of key findings from this investigation and their implications for future research and policy guidance.

2. Literature review

2.1 Theoretical and Conceptual Framework

From the beginning of their implementation, neoliberal policies were intended to deregulate the labour market, thereby reducing the subsistence levels of working-class people (Pulignano, 2018; Castel, 2016; Standing, 2009). Since the 1990s -and particularly intensely after 2000- this policy option has been pervaded by the deregulation of the labour market and the increasing precariousness of employment. In fact, these developments have played a crucial role in providing a favourable environment for the emergence of precarious work and, consequently, precariousness (Kalleberg, 2011; Barbier, 2002; Fine, 1998; Bourdieu 1998). This is also the period where concepts and approaches related to precarious work and precariousness began to emerge.

Scholars have become aware of the term precariousness following an intervention by the French sociologist Pierre Bourdieu in an international debate on the issue (Grenoble, 12-13 December 1997) where his main argument was that labour market insecurity is prevalent both in the private and public sectors. He further argued that this was due to the increase in precarious forms of employment (temporary, part-time, casual work), where the effects are more or less the same in all industries but become particularly visible in the extreme case of jobless and unemployed individuals. These effects are responsible for the destruction of existence, stripped of its temporal structures and for the deterioration of the relationship between oneself and the world (Bourdieu, 1998).

Since the 2000s, the combination of flexibility and security (flexicurity) of employment constituted the main policy tool for the further growth of precarious employment. In employment, flexibility leads to a reduction in working hours or wages which results in a decrease in the income of workers. These underemployment-derived incomes are often not sufficient for people to maintain a decent standard of living and are below the official poverty threshold. Even though they are not unemployed, precarious workers are included in the working poor scheme (Paugam, 2017).

Castel, (2016) argues that neoliberalism has led to a shift in employment relations characterised by deregulation of the labour market, the reshaping of any protective schemes and the development of disconnection (Figure 1). Within Castel's theoretical framework, precariousness has reached the level where it constitutes a permanent layer of the division of labour, i.e., a sub-level below those employed in cases of traditional employment status (Castel, 2003). Moreover, precarious workers alternate between temporary employment and periods of unemployment, a situation that enables them to fall below a level of income, protection, and inclusion that society accepts as normal. In a figurative sense, the concentric circles represent the various levels of social cohesion in the workplace. The integration zone is characterized by stable social relations and stable employment in the core. An outer shell is characterized by a lack of involvement in productive activities and considerable social isolation. An outer shell is characterized by exclusion or disaffiliation. The precariousness zone is at the middle of this spectrum

(Castel, 2003). The relationship between these three areas is fluid and dynamic, with the boundaries of the core and the periphery constantly being challenged.

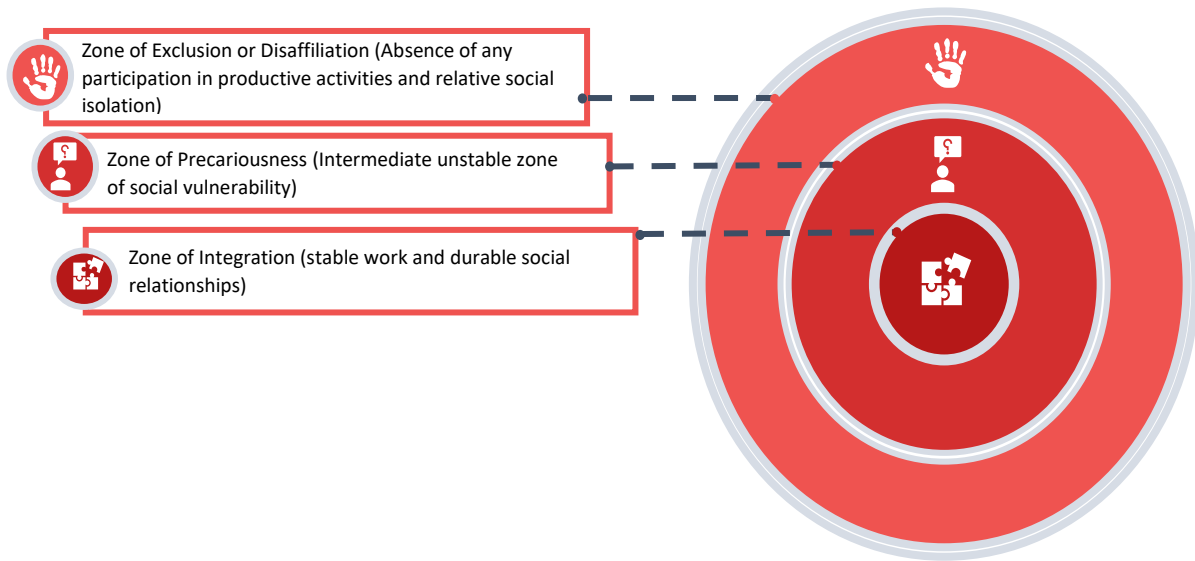
Pierre Bourdieu and Agnes Pitrou were the first to use the terms "*precariousness*" and "*precarity*" in academic discourse in 1963 and 1978, respectively (Waite, 2009; Barbier, 2004). However, Pitrou, (1978b) was the first scholar to identify factors contributing to precariousness. Seven characteristics were observed by her: "precariousness" (which entails difficult working conditions and low wages, as well as absence of any career prospects); "scarce as well as irregular financial resources"; "instable or unsatisfactory housing conditions"; "health problems"; "uncertainty about the future number of children"; "relative lack of social links" and a "rather precarious balance in terms of the life of the couple" (Pitrou 1978b, p. 51-64).

Standing, (2009) describes precarity as a unique concept. "*To obtain by prayer*" is the Latin etymological root of precariousness. The '*precariat*' is a neologism in sociology and economics for a social class formed by people suffering from precarity (Standing, 2011). Members of the precariat in it are losing their citizenship rights: social, civil, economic, cultural, and political rights. As a consequence, they feel like supplicants and are treated as such. The continuing interaction of neoliberal policies in labour markets with restrictive immigration policies has led to the development of the "framework of hyper-precarity trap" (Lewis *et. al.*, 2019). According to De Genova, (2002), there are three ways in which hyper-precarity as a nexus of precarious employment and immigration precarity can be manifested: (a) The "*displacement of daily life*" which functions as the sole and ultimate mechanism of discipline; (b) High probability of occupational injuries and deaths due to high-risk jobs in specific economic sectors (such as construction, agriculture, catering and cleaning etc.) accompanied by limited or no access to health care; and (c) Informal, human networks usually fill this gap (De Genova, 2002).

The concept of precarious employment is explicated by Olsthoorn, (2014) as a defining characteristic of the employment relationship, i.e., insecure jobs held by vulnerable employees who have limited entitlements to income support when unemployed (Figure 2). In his words "*...precarious employment refers to employment relations that are*

precarious for the employee, while precarious employees and ‘the precariously employed’ refer to employees in an employment relation that is precarious for them...” (Olsthoorn, 2014: p. 424).

Figure 1. The Three Zones of Social Cohesion according to Castel



2.2 Defining a framework of indicators and contributions

In spite of its importance, precarious employment and precariousness remains elusive and hard to measure empirically. In fact, most measurement attempts rely on non-consolidated indicators and mediators, which raises important questions about the validity of the findings, as Olsthoorn, (2014) points out. An explanation for this can be provided by the fact that there was a clear preference for indicators that only considers the type of employment relationship, i.e., whether the individual was employed on an informal basis or not. As a general concept, precarious employment is understood as a condition of threatening insecurity or risk (Olsthoorn, 2014; Kalleberg, 2011; Vosko, 2006; Barbier, 2004; Rodgers and Rodgers, 1989).

Kalleberg's study captures empirically the phenomenon of precarious employment (Kalleberg, 2011). He examined the rise of non-standard employment relationships as

evidence of increasing precarious employment, and -at other times- redundancies, increased unintentional job losses, long-term unemployment, weakening internal labour and increasing perception of precariousness. Kalleberg's notion of precariousness-as-job-insecurity is implicit in his work and it is associated with the use of non-standard employment relation as indicator of precarious employment because non-standard contracts can serve as proxy measures for dismissal risks.

Olsthoorn's work is of fundamental importance since it formulates two more valid and reliable indicators for measuring precarious employment (Olsthoorn, 2014). In accordance with the work by Kalleberg, (2011), he developed his first indicator for measuring income insecurity by using variables such as wage, supplementary income, and unemployment benefits entitlements. Here *'wage was considered a job-level dimension; supplementary income, an individual dimension; and unemployment benefits, an institutional dimension'* (p. 427). Based on research conducted by other scholars (Barbier, 2004; Rodgers and Rodgers 1989), his second indicator focused on job insecurity in relation to contract type and unemployment duration. In this case, *'the contract is considered a job-level dimension, whereas the duration of unemployment after dismissal is an individual-level dimension'* (Olsthoorn, 2014, p. 427). Olsthoorn's main concern regarding Indicator 2 is not whether employees can sustain themselves, but whether and to what extent they are insecure regarding their employment and the severity of the consequences of job loss. Further, the two indicators were integrated to verify the coexistence of job and income insecurity at the individual level, thus allowing for a more complete examination of precarious employment (Figure 2).

Castel (2016) notes that precarious workers shift between informal work and periods of unemployment, a situation that causes them to lower their standard of living, protection, and social inclusion below what is considered normal in society. The present study explores precarious work as an aspect of precariousness, based on a framework which includes forms of employment relationship offering low levels of control over work, low income, and low social protection. In other words, precariousness is not only seen as a matter of employment but also of status to denote a mode of living within the 'world of

work' (Kalleberg, 2018; 2011; De Vilhena, *et. al.*, 2016; Olsthoorn, 2014; Waite, 2009; Barbier, 2004; Pitrou, 1978). Accordingly, Olsthoorn's methodology is more consistent with this concept of precariousness. As a result, it has been chosen as the basis for the methodology utilised in the current empirical study by incorporating a synthetic indicator which takes into account Olsthoorn's five primary elements of precariousness: wage, contract type, duration of unemployment, supplementary income and worker's entitled unemployment benefits.

The present study, however, rearranges Olsthoorn's five aspects of precariousness into two indicators: with regard to Indicator 1, it focuses on the labour market (precariousness) and Indicator 2 examines social reproduction (vulnerability). The reasons for this rearrangement are explained in Chapter 4. Then a third indicator (Indicator 3) is calculated, which measures precarity as a condition of precariousness intersecting with economic vulnerability.

Figure 2. Olsthoorn's conceptual model for precarious employment



3. The case of Cyprus

The Cyprus labour market is characterised by relatively high shares of non-standard employment and labour fragmentation and has also been marked by one of the highest adjusted wage gaps in the EU between permanent and temporary employees (Da Silva and Turrini, 2015). It is estimated that the informal sector represents over 25% of the Cypriot economy, which is the sixth largest in the EU. Only eastern European countries have larger informal economies (OECD, 2015). Currently, Cyprus is an expanded international tourist, business and service economic hub that relies on precarious employment arrangements. Seasonal work may also be considered precarious for low-skilled workers within sectors of the economy with strong financial turnover, such as the construction and hospitality industries, due to the proliferation of temporary contracts, the majority of which are not voluntary (Eurofound, 2010; Zopiatis *et. al.*, 2014; Vassou *et. al.*, 2017).

Non-standard employment is more likely to be held by women, foreigner workers, and young persons (Anderson, 2007). According to the Cyprus Department of Labour, in 2020 there were 23,107 immigrant domestic workers for household assistance and care. They made up about 36% of the total migrant labour force in Cyprus, which was one of the highest ratios in Europe (Hadjigeorgiou, 2020)¹⁰. Most of them were women, mainly from the Philippines, Sri Lanka, Nepal, India and Vietnam. According to a study on the socio-legal challenges faced by foreign domestic workers in Cyprus (Hadjigeorgiou, 2020) 40% of the domestic workers in Cyprus work more hours than their employment contract provisions.

Following the financial crisis in Cyprus after 2012, non-standard employment also increased considerably among individuals with high accumulate human capital. For example, over the last decade precarious employment affected research and teaching staff in terms of their working conditions and their income and benefits (Ioannou, 2014; Demetriou, 2015). According to the data of a report of the Pancyprian Federation of

¹⁰ The construction sector was the second largest migrant labour force sector, alone attracted 8.4% of immigrants.

Labour on Economy and Employment (PEO, 2019)¹¹, in 2018 approximately 8.5% of wage laborers was at risk of poverty and social exclusion (p. 5), which was due to maintaining wages in the low levels as formed already during the period of the economic crisis which simultaneously led to the increase of profitability of the firms¹². Therefore, during the period of economic recovery (2016-2019) an increase in employment was accomplished under worse terms related to both wages and the employment conditions.

4. Methodological approach

4.1 Research Questions

A mixed-method empirical approach to measure and address the phenomenon of precarious work and precariousness is utilised. This integrated approach aimed at providing empirically grounded results to address the following three (3) main Research Questions (RQ) under investigation.

RQ₁: *What is the profile of precarious workers and how they can be mapped in the Cyprus labour market?*

RQ₂: *Which are the determining factors affecting the risk of precariousness?*

RQ₃: *Does economic vulnerability and precarious work meet each other and where?*

Those RQ also constitute the follow-up steps of both the quantitative and qualitative analysis of the study.

¹¹ Data of PEO are based on the statistics of Eurostat and CYSTAT.

¹² "The purchasing power of the average wage in terms of money during the second quarter of 2019 was equal to the equivalent of 2013:1. In the meantime (2013:1 to 2019:2), for almost seven consecutive years, the purchasing power of the average wage remained at lower levels than the equivalent of 2013:1 but also of the entire period 2006:1-2013:1. Even during 2019:2, in a period of economy overheating that will require remedial measures to restore GDP in levels more compatible with the basic macroeconomic equilibria, the purchasing power of the average wage was by 3% lower than it has been during the period 2006:1-2011:4." (PEO: 2019, p.15)

4.2 Quantitative research design

Mapping precariousness

Olsthoorn's methodological conceptualisation of precarious employment is used at the basis of the empirical analytical framework. The methodology proposed by Olsthoorn (2014) incorporates a composite indicator that takes into account the following five primary elements of precariousness:

- (1) W_i : the wage of i worker, relative to the median;
- (2) NpC_i : the kind of contract (permanent or temporary work) of the i worker;
- (3) Tu_i : the duration of unemployment periods of the i worker;
- (4) S_i : the supplementary income of the i worker (Duclos and Mercader-Prats, 2005); and
- (5) UB_i : the i worker's entitled unemployment benefits (UB).

A synthetic indicator that integrates in Olsthoorn's five aspects of precariousness is estimated for each worker. Additionally, we rearrange Olsthoorn's five aspects of precariousness into two indicators, one that focuses on the labour market and one that scrutinizes the social reproduction process. Rather than using eligibility for unemployment benefits, which is low in Cyprus, Home Ownership (Ho_i) is being used, defined as being the outright owner of his or her principal residence with no outstanding loans or mortgages, which is a rather frequent occurrence in Cyprus.¹³

In addition, the economic structure, which is the system of economic relationships that remains constant in all developed countries, exhibits infinite variations because contingency circumstances differ from country to country (and therefore can only be evaluated empirically). According to the proposed model to analyse precarity, all variables (W_i , NpC_i , Tu_i , S_i , Ho_i) pertain to country-invariable relationships, whereas thresholds describe contingent country-specific conditions framed by history, geography,

¹³ Home ownership in Cyprus was 69% in 2019 when the corresponding percentage in the Eurozone was 65.8%

productivity, and wealth. In contrast, the standard models establish operationally and statistically convenient, but economically arbitrary *thresholds* that render blind spots concerning the specific conditions of every country.¹⁴ Therefore, the proposed method makes use of the standard rule for defining thresholds in a purely statistical manner as a starting point, deviations from it are accepted as an alternative approach to introduce national idiosyncrasies into the analysis as needed.

Determining the factors affecting the risk of precariousness

The underlying objective is to describe the main characteristics of precarious workers. Having identified precarious workers in the first part of this empirical analysis, their main characteristics of precarious workers in terms of *age, gender, education, professional experience, industry sector, occupations, social status* etc. are described. By using Classification Tree Analysis (CTA), the divisional characteristics of the group of precarious workers are defined. At a next step the factors that affect: (a) the labour income of the precarious workers and (b) the likelihood of a worker becoming precarious are identified.

Intersections between economic vulnerability and precariousness

The next and final step in our analysis is the examination of (a) *Economic Vulnerability* defined as having a low income, a low propensity to save, and no outright ownership of a house and (b) *Precarity* as a condition in which *Precariousness* and *Economic Vulnerability* intersect and interact.

4.2.1 Three Indicators

To address empirically the research questions under investigation three indicators were defined. As noted earlier, in the present empirical study, the term *precarity* refers to a

¹⁴ For example, the threshold for low wages or poverty is set at 2/3 or 60% of the median wage or income respectively, which is a threshold that may decrease abruptly in times of deep crisis, leading thus to paradoxical results.

combination of precariousness (Indicator 1) and vulnerability (Indicator 2), which results in a third indicator (Indicator 3) equal to the product of Indicators 1 and 2 that identifies if and how precariousness and economic vulnerability intersect and interact.

Indicator 1: Precariousness Indicator

An indicator of precariousness is considered indicator 1, which is composed of W_i and NpC_i . These two variables describe the conditions under which working capacities are sold within the labour market. Tu_i identifies the irregular relationship between the worker and the labour market. The W_i variable represents a worker's position within the wage set or his/her precarious wage; NpC_i represents the contract aspect of precarious employment by identifying whether a worker has a permanent or temporary job; and NpC_i represents the length of the unemployment period for each precarious worker.

$$Precariousness\ Indicator_i = W_i \cdot NpC_i \cdot Tu_i \quad (1)$$

where:

Precariousness Indicator_i: is the Precariousness Indicator of the i worker;

W_i : the wage of the i worker, which is relative to the median in order to capture the worker's position in the wage set or else if he/she has a precarious wage;

NpC_i : the contract aspect of precarious employment of the i worker by identifying if an individual has a permanent or temporary work, which corresponds to a contract with a limited duration (value 1 for temporary work, otherwise 0);

Tu_i : the duration of the unemployment periods for i precarious worker. If the unemployment duration is below a certain threshold, the variable takes on value 0 and value 1 otherwise.

Indicator 2: Vulnerability

This indicator (Vulnerability Indicator) is comprised of two variables in the Olsthoorn's methodology of, S_i and Ho_i (instead of UB_i), both of which assess social reproduction, i.e., the ability of a worker to maintain and reproduce working capacity on a daily basis (and perhaps on a generational basis) (Olsthoorn, 2014). We consider home ownership (Ho_i , defined as the outright ownership of a primary residence without a mortgage or loan on it), which is quite widespread in Cyprus, rather than eligible unemployment benefits, which are extremely low. In this stage, two variables will be used to assess economic vulnerability. The first variable is *Low Savings*, which refers to a family's inability to save a significant amount of money from its income. Based on the assumption that the lower the household income, the lower their propensity to save, we utilize the *Equivalent Household Disposable Income* (as reported by the EU-SILC survey, variable EQ INC20) to estimate *Low Savings*, with the income of €1,500.00 month as a threshold.

$$Vulnerability\ Indicator_i = S_i \cdot Ho_i \quad (2)$$

where:

$Vulnerability\ Indicator_i$: the vulnerability indicator of the i worker;

S_i : the supplementary income of the i worker;

Ho_i : the home ownership (instead of unemployment benefits) of the i worker

Indicator 3: Precarity

Indicator 3 refers to the set of variables included in the *Precariousness Indicator* (Indicator 1), which contains the first set of variables (W , NpC , Tu) and their product ($W_i \cdot NpC_i \cdot Tu_i$) and is defined as the *Indicator of Vulnerability* (Indicator 2), which includes the second set of variables (S , Ho) and is defined as their product ($S_i \cdot Ho_i$). The concept of *precariousness* is kept at this stage for workers with low employment incomes,

job insecurity, and a high probability of unemployment (indicator 1), and the concept of *vulnerability* is kept for workers without a home that they own outright (indicator 2).

As can be seen from Equation (3), we measure precarity by integrating all variables that represent country-invariant relations (W_i , NpC_i , Tu_i , S_i , Ho_i), while thresholds describe contingent conditions which are related to country-specific characteristics such as history, geography, productivity and wealth. This is in opposition to standard models that establish operationally and statistically convenient but economically arbitrary thresholds, producing blind spots regarding the specific conditions of each country.¹⁵

$$\begin{aligned} \text{Precarity Indicator}_i &= \text{Precariousness Indicator}_i \cdot \text{Vulnerability Indicator}_i \\ \Rightarrow \text{Precarity Indicator}_i &= (W_i \cdot NpC_i \cdot Tu_i) \cdot (S_i \cdot Ho_i) \end{aligned} \quad (3)$$

All the empirical findings of this study have derived from the analysis of the data from Eurostat, EU Statistics on Income and Living Conditions (EU-SILC, 2020).

4.3 Qualitative Research Design

Given the complex nature of the phenomenon under study, it was decided to employ a qualitative method in addition to the quantitative design. The rationale behind the investigation of a mixed method design was to allow a more rigorous and thorough analysis and to fill in blind spots. Thus, an online focus group discussion was organized not only because focus groups are well suited for exploratory studies in little-known domains (Brinkmann, 2014) but because the real strength of this method is in providing insights into the sources of complex behaviours and motivations (Morgan & Krueger 1993). Three academics/researchers and two trade union representatives were present after being selected due to their considerable experience in precarious employment issues. The

¹⁵ The threshold for low wages or poverty is set at 2/3 or 60% of the median wage or income respectively, which is a threshold that may decrease abruptly in times of deep crisis, leading thus to paradoxical results.

session lasted for about 80 minutes and all participants (three women and two men) granted consent to be recorded. Recording and summarising the views and experiences of this focus group provided a better understanding of precariousness in Cyprus and enabled the definition of policies that could be effective in combating precarious employment. The discussion revolved around three main axes: the characteristics of precarious workers in Cyprus, the role of the state and the role of trade unions. The main findings of this process are presented in chapter 5.2.

5. Empirical analysis

5.1 Quantitative analysis

5.1.1 Profiling and mapping the precarious workers and precariousness

Utilising microdata from the EU-SILC (2020) and a set of three variables (*Low annual labour income*, *Temporary Work Unemployment*, and *Potential Unemployment over 1 month*) workers in Cyprus who were employed in precarious circumstances during 2019 were identified. *Low annual labour income* (or low wage) was defined as an income lower than two-thirds of the median Gross Annual Labour Income of €10,400.00 (or €800.00 monthly for 13 months). *Temporary Work* corresponded to a work contract with a limited duration. For each precarious worker, his or her *Potential Unemployment* duration was estimated regardless of whether she/he was unemployed during 2019. This was accomplished by regressing the duration of unemployment of precarious workers observed in 2019 against their individual characteristics.

In this study, it is assumed that a precarious worker in Cyprus who becomes unemployed will suffer severe economic hardships immediately following his or her job loss. Thus, the threshold value of 0 in the analysis was used, but occasionally the value of 1 was also used merely for sensitivity analysis, resulting in a minimum and a maximum value for the estimated number of precarious workers.

CTA was employed to determine the profile of precarious workers in Cyprus (Figure 3). A total of 106,888 people had low annual labour income. Assuming that precarious workers face severe economic difficulties from their first day of unemployment, it was estimated that in 2019 there were 37,629 precarious workers, out of which 25,556 were female (approximately 2/3 of all precarious workers). There were 31,983 persons (85% of all precarious workers) who were classified as unskilled or semi-skilled (ISCO categories 4 to 9). Approximately 64% of the temporary workforce was classified as precarious.

Following the findings of this analysis, the characteristics of the precarious were described, their economic activities, and occupations, as well as the distribution of their labour income. For 2019, the estimated number of precarious workers was between 9,5% and 7,3% of total employees, depending on the assumption regarding the unemployment duration threshold. Female workers were one to two times more likely to be precarious.

Under the assumption that the economic circumstances of precarious workers in Cyprus tend to change dramatically within a short period of time after being laid off, it is estimated that in 2019 there were 37,629 precarious workers employed in Cyprus (10,5% of all wage earners) of whom 25,500 were women. Under the alternative assumption that a precarious worker's economic situation deteriorates abruptly after one month in unemployment, the number of precarious workers in 2019 was estimated to be 28,800 of which 20,900 were women.

The level of education of precarious workers is significantly lower than that of non-precarious workers (tertiary education accounts for 23.1% of males and 33.1% of females, respectively). Approximately 32% of female precarious workers obtained a primary education certificate compared to 9% of female non-precarious workers.

Two interesting findings emerge. Firstly, female precarious workers were in a significantly more vulnerable position than their male counterparts, and subsequently, females constituted two-thirds of all precarious workers. In part, these findings may be due to the fact that female domestic workers, who were primarily immigrants, represented nearly 40% of all precarious workers.

In total, there were nine economic activities that employed 82,5% of precarious workers, whereas five economic activities (Domestic Work, Education, Restaurants, Accommodation, and Retail Trade) were responsible for 70% of all precarious workers. In the distribution of precarious workers by occupation and economic sector (Table 1), 69.4% of all precarious workers belonged to five occupational groups: Domestic Workers, Teaching Professionals, Child Carers in the Education Sector and Teachers' Aides, Sales in Retail Trade, and Personal Service Workers in Accommodation and Restaurants.

Workers in precarious positions tended to be young. In terms of their age distribution (Figure 4), half of them were under the age of 31, and the average age was 35 (while the corresponding figures for non-precarious workers are 40 and 42). Figure 4 provides some insight into the young age of precarious workers in other sectors: half of them were under the age of 29, and the average age is 32 years. By dividing the same population into those who were working in households as domestic personnel and those who were working in other sectors (Figure 5), it becomes evident that they were even younger: half of them were under 29 years of age and the average age is 32 years. Precarious domestic workers were slightly older than their non-precarious counterparts, with a median age of 35 years and an average age of 36 years.

Table 1. Distribution of precarious workers in economic activities and occupations (2019)

Precarious Workers	Retail Trade	Accommodation	Restaurants	Education	Households	Total
Teaching Professionals				6,4%		6,4%
Personal Services Workers		4,5%	4,7%			9,2%
Sales	6,5%					6,5%
Child Care Workers and Teachers' Aides				6,2%		6,2%
Domestic Workers					41,1%	41,1%
Σ	6,5%	4,5%	4,7%	12,5%	41,1%	69,4%

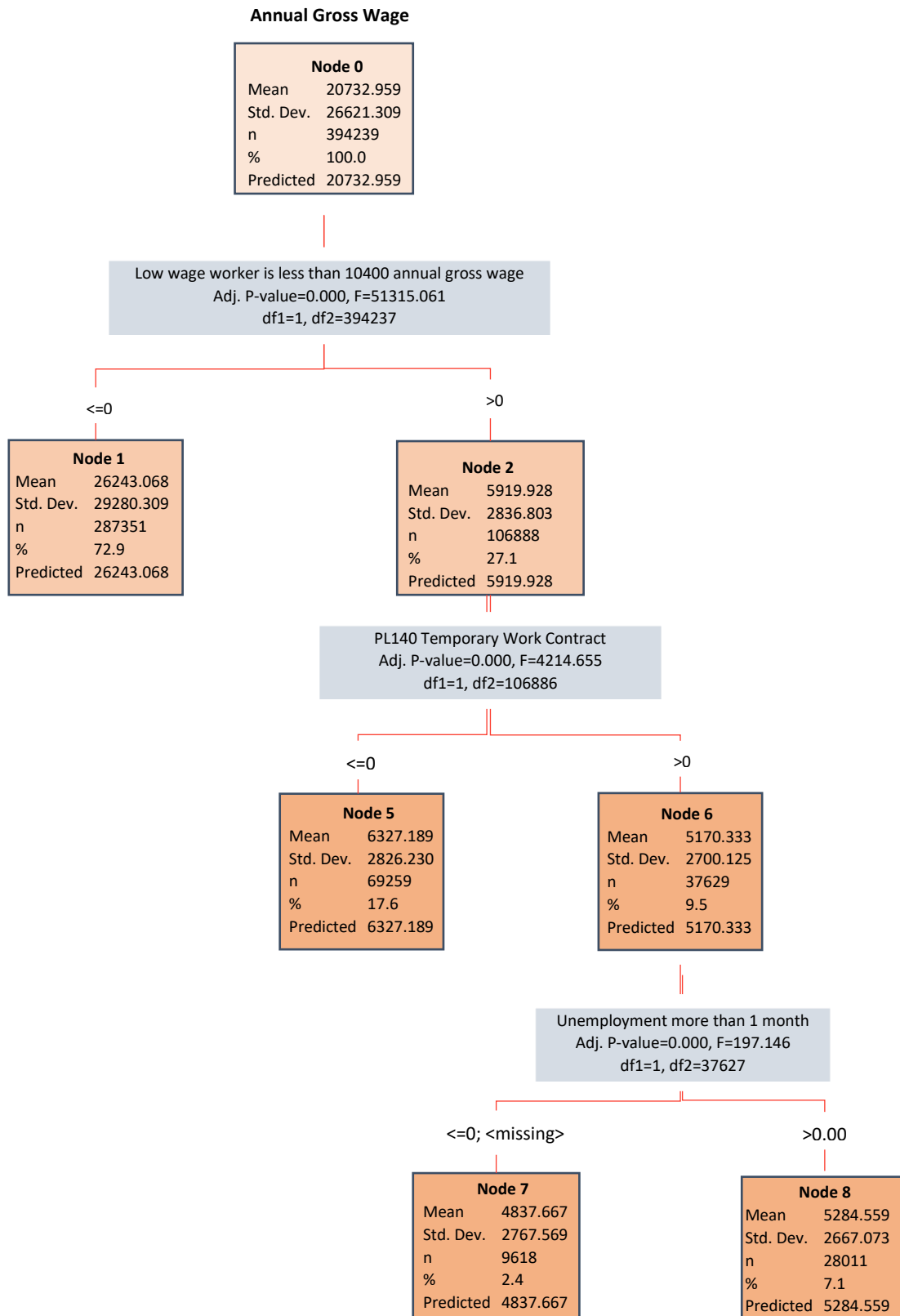
Data source: EU-SILC (2020), Note: The classification of economic activities and occupations was adopted from the International Labour Office-ILO and the International Standard Classification of Occupations-ISCO .2008

Figure 6 indicates the distribution of professional experience among all employees in Cyprus in 2019. Half of them have worked in paid jobs for more than 15 years, with an average of 18 years. Interestingly, the distribution of precarious workers by duration of professional experience (Figure 4) was quite different: half of them had been employed for less than five years, with the average being ten years. In the distribution of all employees, the coefficient of variation was 0,7, while the coefficient of variation was 1,1 in the distribution of precarious workers, indicating a concentration of values around the average in this distribution (as can be seen simply from comparing Figures 5 and 6).¹⁶ The findings suggest that precarious workers accumulated professional experience at a much slower rate than non-precarious workers.

By using Linear Regression Analysis (LRA) it was found that professional experience decreased with respect to four variables that appear to be tenuously related to the labour market: temporary employment, change of job since last year, part-time employment, and being unemployed for several months during the survey year (Table 5).

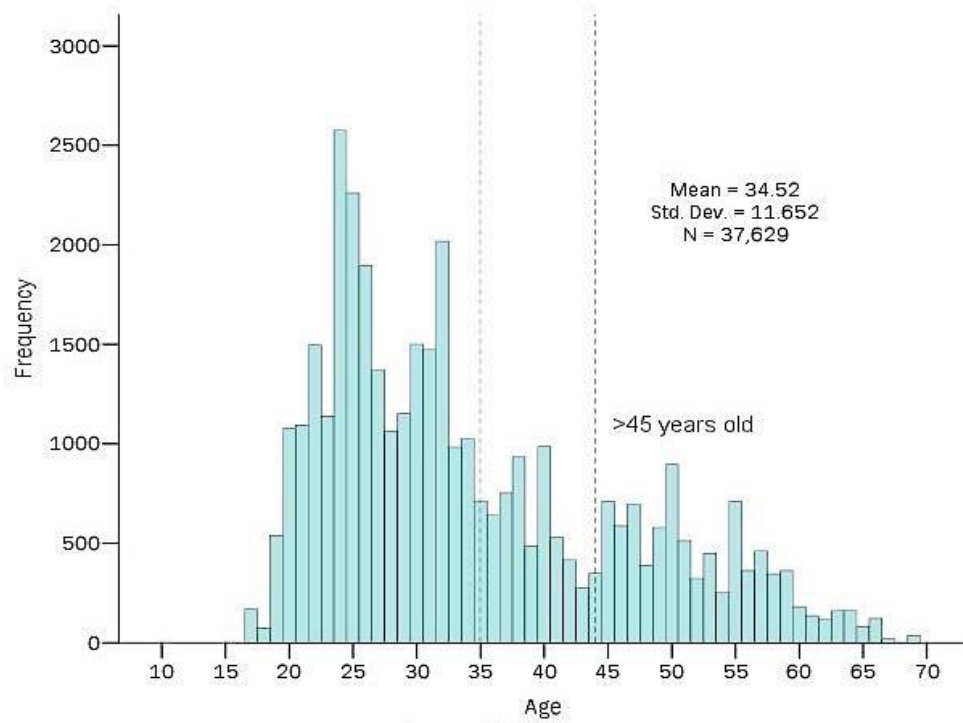
¹⁶ The coefficient of variation is equal to the ratio of the mean value on standard deviation.

Figure 3. A classification tree for determining the number of precarious of workers in Cyprus and their income.



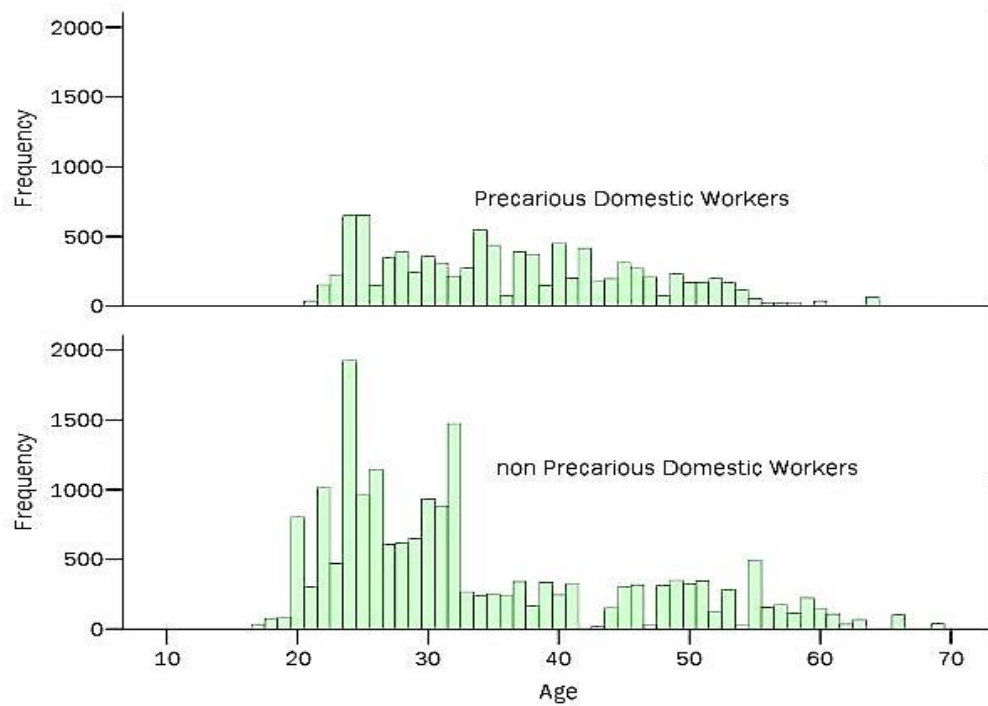
Data source: EU-SILC (2020)

Figure 4. Distribution of precarious workers by age (2019)



Data source: EU-SILC (2020)

Figure 5. Distribution of precarious domestic workers by age (2019)



Data source: EU-SILC (2020)

Figure 6. Distribution of all employees by duration of professional experience (2019)

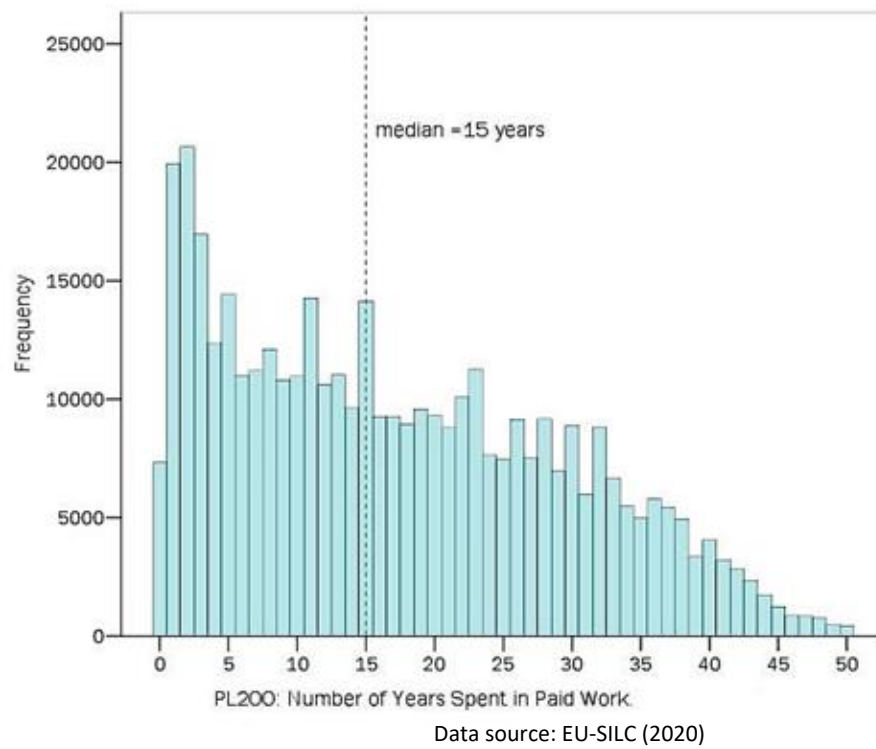
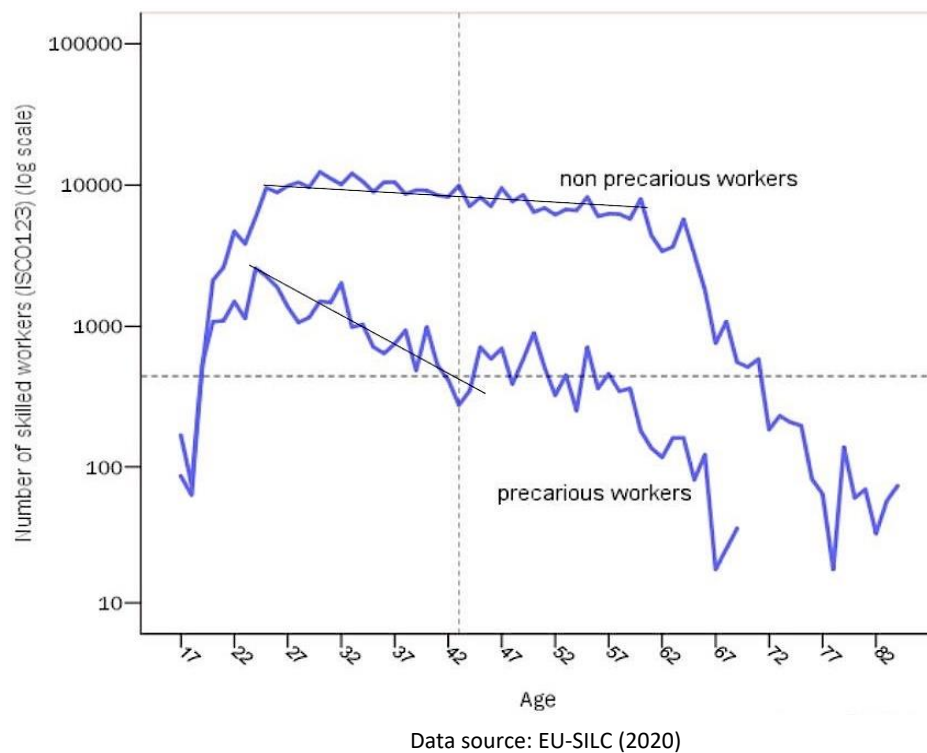
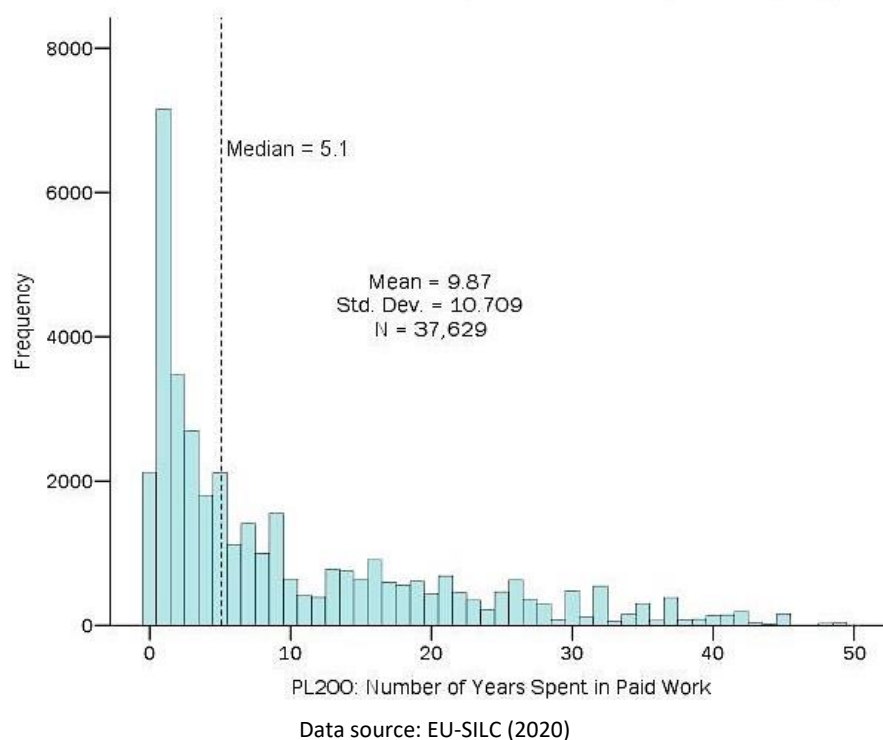


Figure 7: Number of skilled workers (ISCO 1,2,3) by age (log scale, 2019)



Moreover, the number of skilled workers (ISCO 1, 2 and 3) in the population of precarious workers is lower than in the population of non-precarious workers. For many precarious skilled workers, especially those who have completed tertiary education, precarious employment is a temporary, but prolonged experience. As depicted in figure 6, the number of skilled precarious workers decreases rapidly between the ages of 25 and 40 years. Skilled labour, however, appears to accumulate professional experience more rapidly. As a result of the factors outlined above, the accumulation of professional experience among precarious workers is low (median = 5,1 years) (Figure 8).

Figure 8. Distribution of precarious workers by professional experience

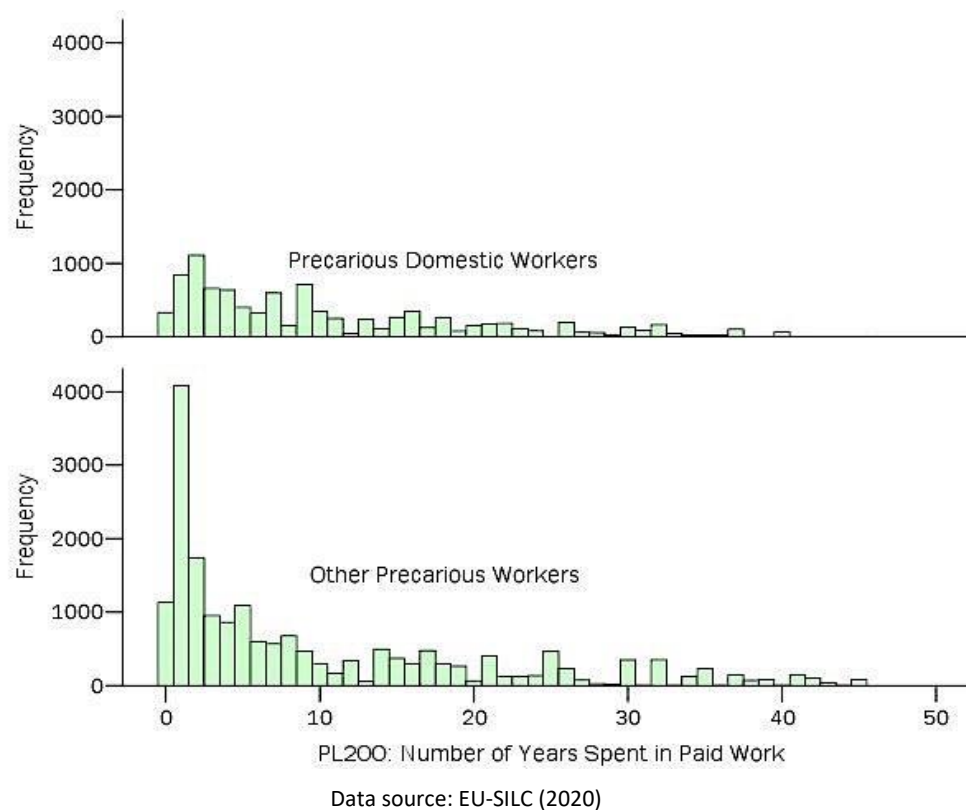


It can be concluded that the unskilled and less skilled (ISCO 4-9) precarious workers slow rate of professional experience accumulation is part of a *vicious circle*: Precarious work constricted the process of accumulating professional experience, reducing in this way the likelihood of obtaining a better-paying, more stable, non-precarious job. Hence, precariousness tends to reproduce itself becoming a trap. Thus, the only way to break the

precariousness vicious circle is through external forces such as state labour market policies and/or the involvement of trade unions.

To address the issue of the overrepresentation of domestic workers in the total number of precarious workers and in order to control for potential bias enable to distort the distribution of professional experience was divided. The results confirmed that the findings applied to both domestic and non-domestic precarious workers (see Figure 9).

Figure 9. Distribution of precarious Domestic Workers by duration of professional experience (2019)



5.1.2. Factors affecting labour income of the precarious workers

Precarious workers' wages are determined by income, which is the annual gross earnings independent of the number of hours they worked. As a proxy for annual gross wages, the annual gross labour income was used (net of employer's social security contributions).

Figure 10 shows the distribution of 37,629 precarious workers by their annual gross wages in 2019. The median annual gross labour income was €4,980.00, and the average was €5,170.00. Approximately one in four precarious workers earned between €7,200.00 and €10,400.00 per year (or €550.00 and €800.00 per month for 13 months). All remaining precarious workers earned less than €7,200.00 per year. The proportion of precarious workers within the income range of €4,000.00–€5,200.00 per year was high.

Figure 11 illustrates clearly the distinction between precarious domestic workers and non-domestic workers. More specifically it shows that those in the range of €4,000.00–€5,200.00 are classified as precarious domestic workers. Based on the assumption that they were paid for 12 months, their gross monthly earnings would be at the range of €350.00–€450.00. However, not all domestic workers were precarious, as approximately 9,528 precarious and 1,500 non-precarious domestic workers were recorded.

Figure 10. Distribution of precarious workers by annual gross labour income (2019)

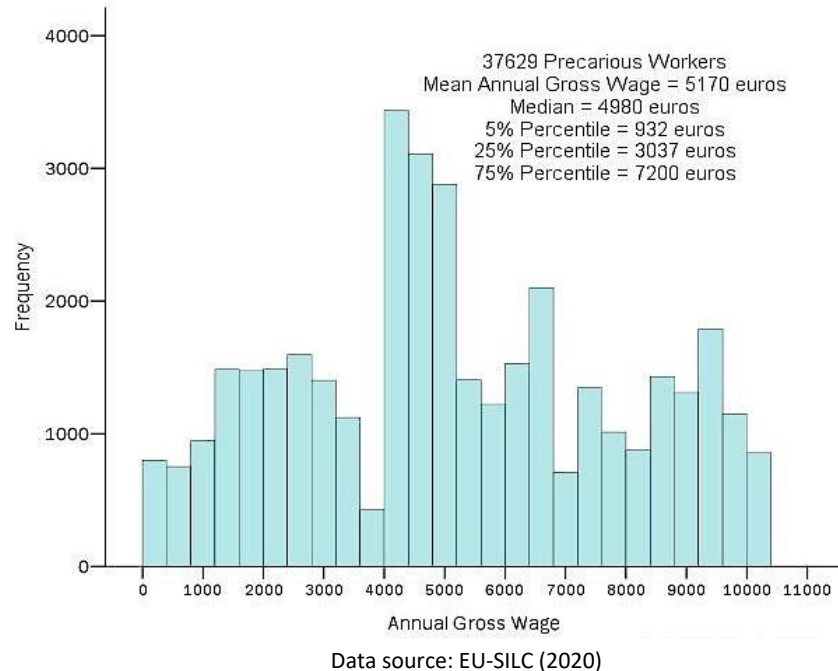
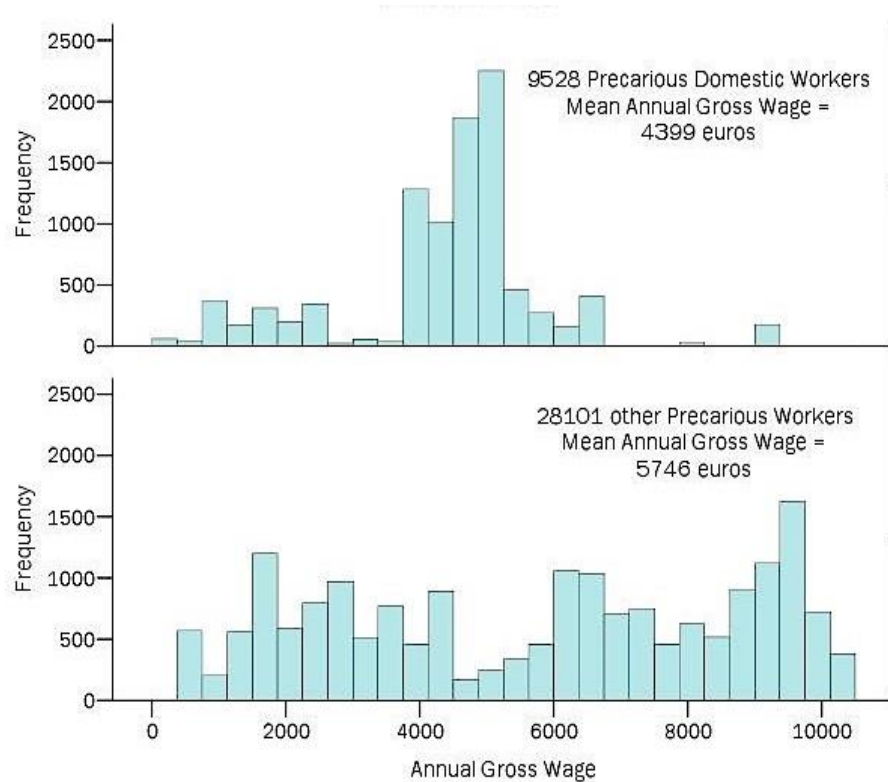


Figure 11. Distribution of precarious domestic workers by annual gross labour income (2019)

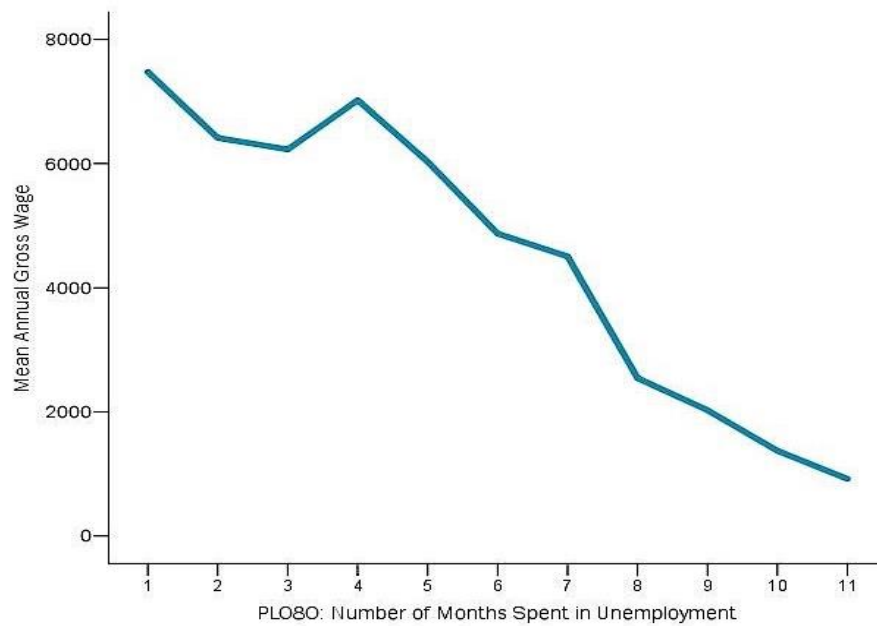


Data source: EU-SILC (2020)

If the income earned by domestic workers is excluded, the average gross labour income for non-domestic precarious employees comes up to €5,745.00 annually (or €440.00 for 13 months). Half of these workers had a gross annual income of €5,032.00 (or a monthly income of €387.00). For 25% of non-domestic precarious workers, the average gross labour income ranged from €8,703.00 to €10,400.00 (or €670.00 to €800.00 per month, over a period of 13 months).

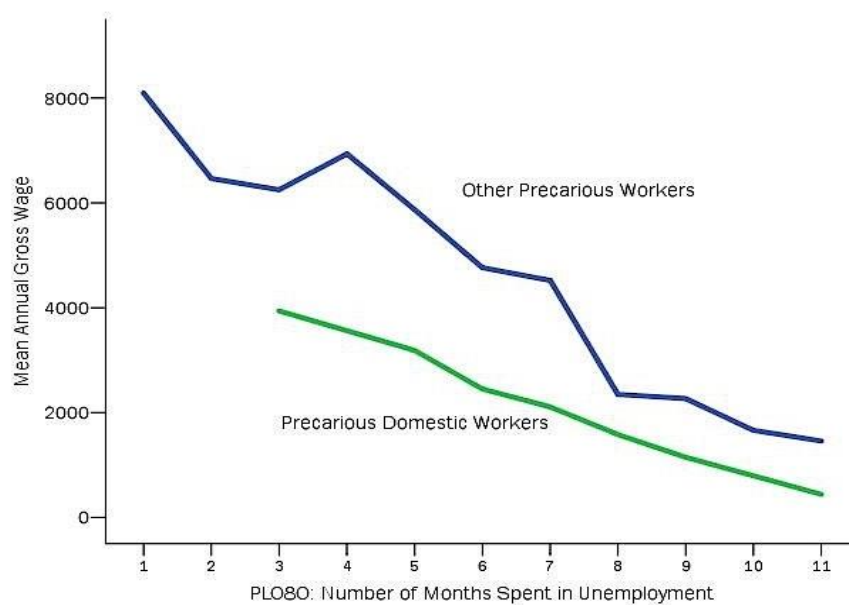
Nearly one in two precarious workers were unemployed for several months during 2019. The average duration was 2,75 months, whereas the median was 3,5 months. Precarious workers were more likely than non-precarious workers to face prolonged periods of unemployment. In 2019, 19,953 out of 37,629 precarious workers (53%) were unemployed for several months before being reemployed, whereas 48,689 out of 356,610 non-precarious workers (13,7%) were unemployed for several months before being reemployed.

Figure 12. Annual gross labour income of precarious workers as a function of unemployment duration (2019)



Data source: EU-SILC (2020)

Figure 13. Average annual gross labour income of precarious domestic workers as a function of unemployment duration (2019)



Data source: EU-SILC (2020)

Therefore, unemployment contributes substantially to the precarious' low level of gross annual income and to their ongoing precariousness. As can be seen in Figure 12, precarious workers' income decreases in parallel to the duration of their unemployment. As a result of unemployment, income decreases at a constant rate of €630.00 per month. It is pertinent to note that this conclusion applies to both precarious domestic and non-domestic employees (see Figure 13).

Utilising LRA, the factors contributing to low wages of precarious workers was identified. These variables originate from the EU-SILC (2020) (Table 2) and the results are presented in Table 3.

Table 5 presents the regression results. It can be noted that the duration of unemployment and number of hours typically worked each week were factors that affected the gross labour income of precarious workers. This is because unemployment duration both increased and decreased the number of hours of actual paid work in 2019. Domestic work paid significantly less than the average for other occupations. Professional experience and skilled work (ISCO 1, 2, and 3) raised wages and income, while changing jobs was penalized.

Based on the results of the preceding regression, the internal divisions of the population of precarious workers were examined. For the authors of this study, the separation of precarious workers into domestic workers and non-domestic workers is of fundamental importance, since domestic workers represent slightly less than a third of precarious people and perform their duties in unusual and idiosyncratic circumstances. For this reason, the CTA examines domestic and non-domestic segments separately (Figures 14 and 15).

Table 2. Definition of variables of linear regression for the determination of factors affecting labour income of the precarious

Independent variables	Definition	Designed to capture
Female		Employers' preferences, female employees' family responsibilities etc
ln (Age)	Age of worker	Employer's disfavour for older employees
Occupations 123	Occupations in skilled intellectual work (scientific personnel, technicians etc)	Skilled work
ln (Professional Experience)	Number of years spent in paid work	Professional Experience
Hours usually worked weekly	Hours usually worked weekly	Differential bargaining power depending on working time
ln (Months in Unemployment)	Unemployment duration	Lower annual income, lower bargaining power
Changed job since last year	Changed job since last year	Employers' preferences, lower bargaining power of the employee
Cypriot, Greek, OAS, NME	Citizenship	Employer's preferences and/or discrimination
Precarious Domestic Work		Occupational idiosyncrasy
Upper Secondary Education, Tertiary Education	Education attainment level	Formal knowledge and skills, ability to perform complicated tasks
Dependent variable: ln (Annual Gross Labour Income)	Logarithm of Annual Gross Labour Income	

Data source: EU-SILC (2020)

Figure 14 illustrates the internal divisions of precarious domestic workers. Among the 9,528 domestic workers (with no missing values), the average gross annual income is approximately 4,400.00 euros. Of these individuals, 5,545 had more than five years of professional experience and earn an average gross annual income of €4,800.00 euros, while 3,983 have less than five years of professional experience and earn an average gross annual income of €3,839.00 euros. The income gap between the two groups of domestic workers was approximately 25% of the income of the less experienced.

Being unemployed for several months during the survey year is regarded as the second most significant internal divisional characteristic among domestic employees. The average reduction in income resulting from unemployment is 50%. Additionally, the third most important divisional characteristic can be attributed to the stability of employment

relations. In particular, as a result of changing jobs within the last year, the average gross income was reduced by 25%.

Table 3. Results of the Regression: Factors affecting labour income of the precarious

Dependent Variable: ln (Annual Gross Labour Income)	Unstandardised Coefficients		Stand. Coefficients	T	Sig.
	B	Std Error			
ln (Months in Unemployment)	-0,586	0,006	-0,494	-93,338	0,000
Hours usually worked weekly	0,035	0,000	0,509	98,887	0,000
Precarious Domestic Work	-0,769	0,016	-0,261	-48,824	0,000
ln (Professional Experience)	0,128	0,003	0,201	38,124	0,000
NME	-0,847	0,032	-0,139	-26,271	0,000
Changed job since last year	-0,208	0,009	-0,123	-23,64	0,000
Occupations 123	0,274	0,012	0,121	23,305	0,000
Constant	7,827	0,018		431,656	0,000
R squared = 0,69					
Variables excluded for collinearity	Collinearity Tolerance				
Female	0,830				
ln Age	0,206				
Cypriot	0,663				
Greek	0,658				
OAS	0,115				
Upper Secondary Education	0,815				
Tertiary Education	0,697				

Data source: EU-SILC (2020)

It is noteworthy that the two out of three most important divisional characteristics refer to the stability of the employment relationship, which in the event of a break (whether by choice to find a new job or by unemployment) is heavily affected in terms of income loss. This presumably can explain the empirical observation that domestic workers employment is less frequently interrupted by unemployment when compared to the corresponding unemployment of non-domestic workers.

Figure 15 illustrates the internal divisions in precarious employment other than domestic employment. There are four classification variables which are considered as the most important: skilled and unskilled workers (ISCO 1, 2, 3) as well as unskilled or semi-skilled workers (ISCO 4-9), professional experience, full-time employment, and unemployment for several months during the survey year (2019). The first two classification variables are

related to skills, knowledge, and accumulation of experience, whereas the last two are associated with the continuity of an employment relationship. The division of the non-domestic precarious workers into four subgroups (see Figure 15) demonstrated that a small group of approximately 1,000 (5,3%) skilled (ISCO 1, 2, 3), long professional experience employees who earn annual labour income of €7,629.00 were compared to approximately 3,200 (17,1%) skilled, short professional experience employees earning €5,391.00. With respect to unskilled or less skilled labour (ISCO 4-9), 77.6% (14,445 individuals) of those who worked full time in 2019 earned €6,345.00, while those working part-time earned €4,704.00.

Figure 14. Internal divisions of precarious domestic workers.

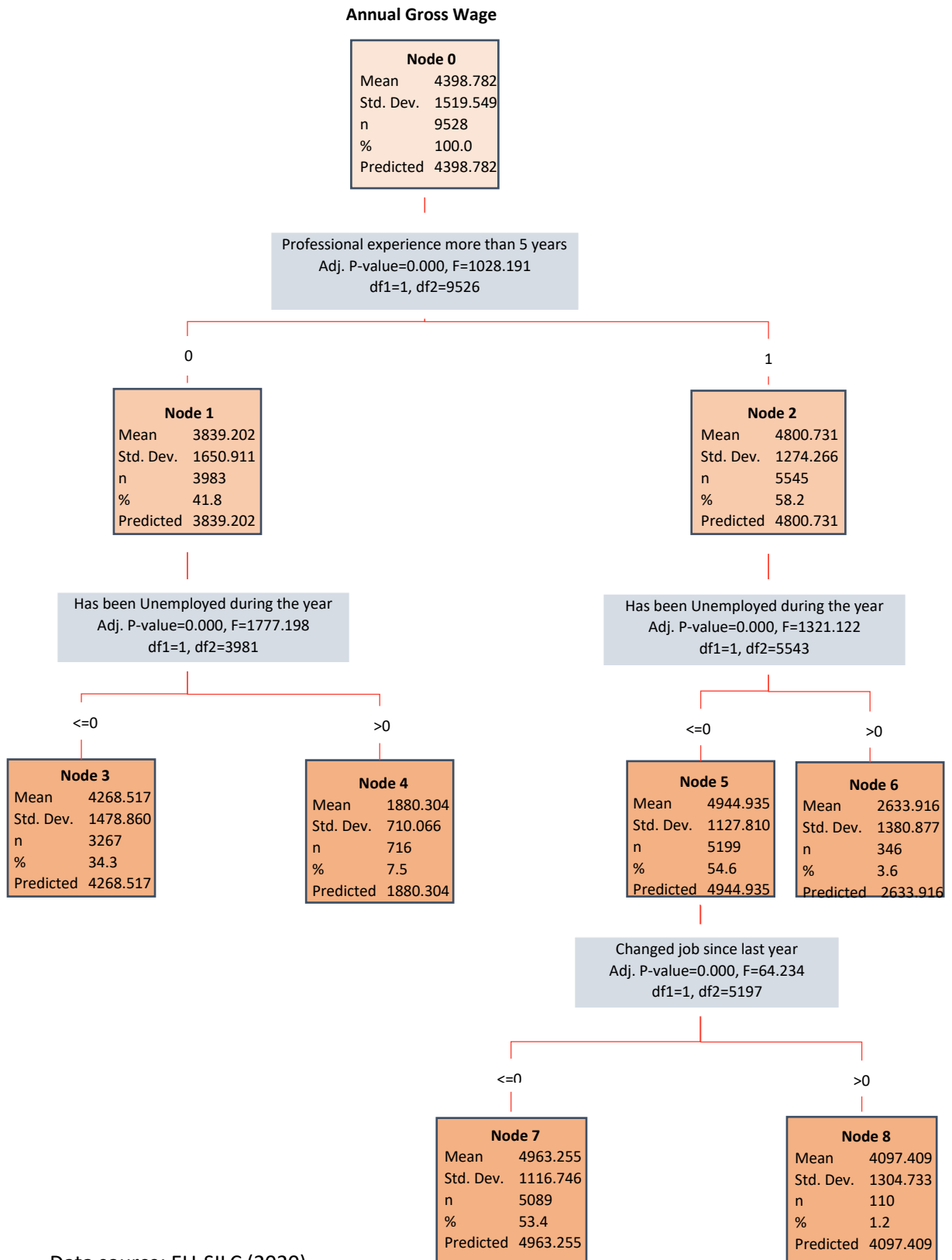
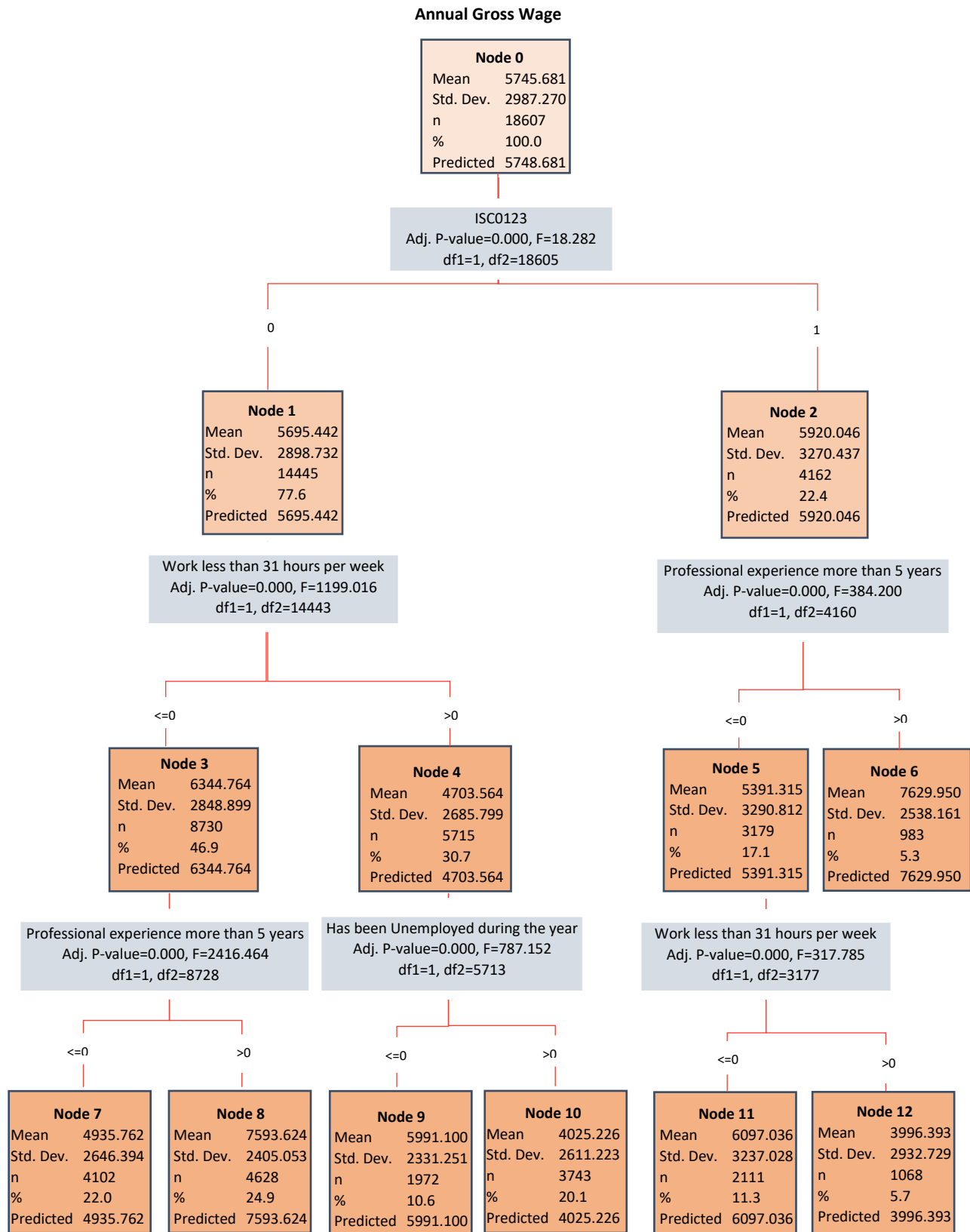


Figure 15. Internal divisions of precarious workers other than domestic.



5.1.3. What makes a precarious worker? Determining factors affecting the risk of precariousness

Following the estimation of the indicator of precariousness and the identification of precarious workers, logistic regression analysis was used to estimate the indicator against workers' characteristics (level of education, experience, etc.) so as to determine the factors that affect the probability of workers experiencing precariousness. Since this division is considered to be of critical importance, two separate regression models were developed: one for domestic workers and one for non-domestic workers (see Table 5 and 6).

Table 4. Definition of variables of logistic regression for the determination of personal characteristics affecting the risk of precariousness

Independent variables	Definition	Designed to capture
Female	Gender (1=Female)	Employers' preferences, female employees' family responsibilities etc
Education Primary, Lower, Secondary, Upper Secondary	Education attainment levels	Formal knowledge and skills, ability to perform complicated tasks
Professional Experience more than 5 years	Number of years spent in paid work	Professional Experience
Unemployment more than 3 months per year	Unemployment duration	Lower annual income, lower bargaining power
Cypriot, Greek, OAS, NME	Citizenship	Employers' preferences and/or discrimination
Dependent variable	Risk of precariousness of domestic workers	Determinants of the risk of precariousness of domestic workers

Data source: EU-SILC (2020)

The results of the logistic regression for domestic workers are presented in Table 5 and for non-domestic workers in Table 6. The results of the logistic regression analysis in Table 5 indicate that professional experience exceeding 5 years significantly reduce the probability of being a precarious domestic worker. An immigrant from an Asian country had a high probability of being a precarious domestic worker. Women who were unemployed for at least three months had a higher probability of being precarious

domestic workers. In other words, a young immigrant Asian woman worker with less than five years of professional experience, who had been unemployed for at least 3 months during the survey year, would most likely have worked as a domestic worker in 2019 (see Table 5).

Table 6 presents the results of logistic regression analysis for non-domestic workers. Those with professional experience exceeding five years were less likely to become precarious workers other than domestic workers. An individual who was unemployed for at least three months during the survey year increased the likelihood mentioned above by nine times. Being a female or having completed primary or lower secondary education increased the probability by one time. The probability increased by 35% if one had completed upper secondary education. Being from Asia increased the probability by six times, whereas being from the Balkans (mainly from Greece, Bulgaria and Romania) increased the probability by one time.

Table 5. Results of stepwise logistic regression: personal characteristics affecting the risk of precariousness of domestic workers

Dependent variable: risk of precariousness of domestic workers (n=11,054)					
	B	Std Error	Wald	Sig.	exp(B)
Female	21,592	940,599	0,001	0,982	2E+09
Professional Experience more than 5 years	-2,107	0,147	206,288	0,000	0,122
Unemployment more than 3 months per Year	36,905	1401,74	0,001	0,979	1E+16
OAS	5,176	0,129	1614,429	0,000	176,949
Constant	-22,109	940,599	0,001	0,981	0,000
Nagelkerke R square = 0,658					
Cox & Snell R Square = 0,363					
Variables excluded by stepwise logistic regression					
Education Primary, Lower, Secondary, Upper Secondary					

Data source: EU-SILC (2020), Note: Total number of domestic workers 11,054 persons (199 unweighted count)

Table 6. Results of stepwise logistic regression: personal characteristics affecting the risk of precariousness of other than domestic workers

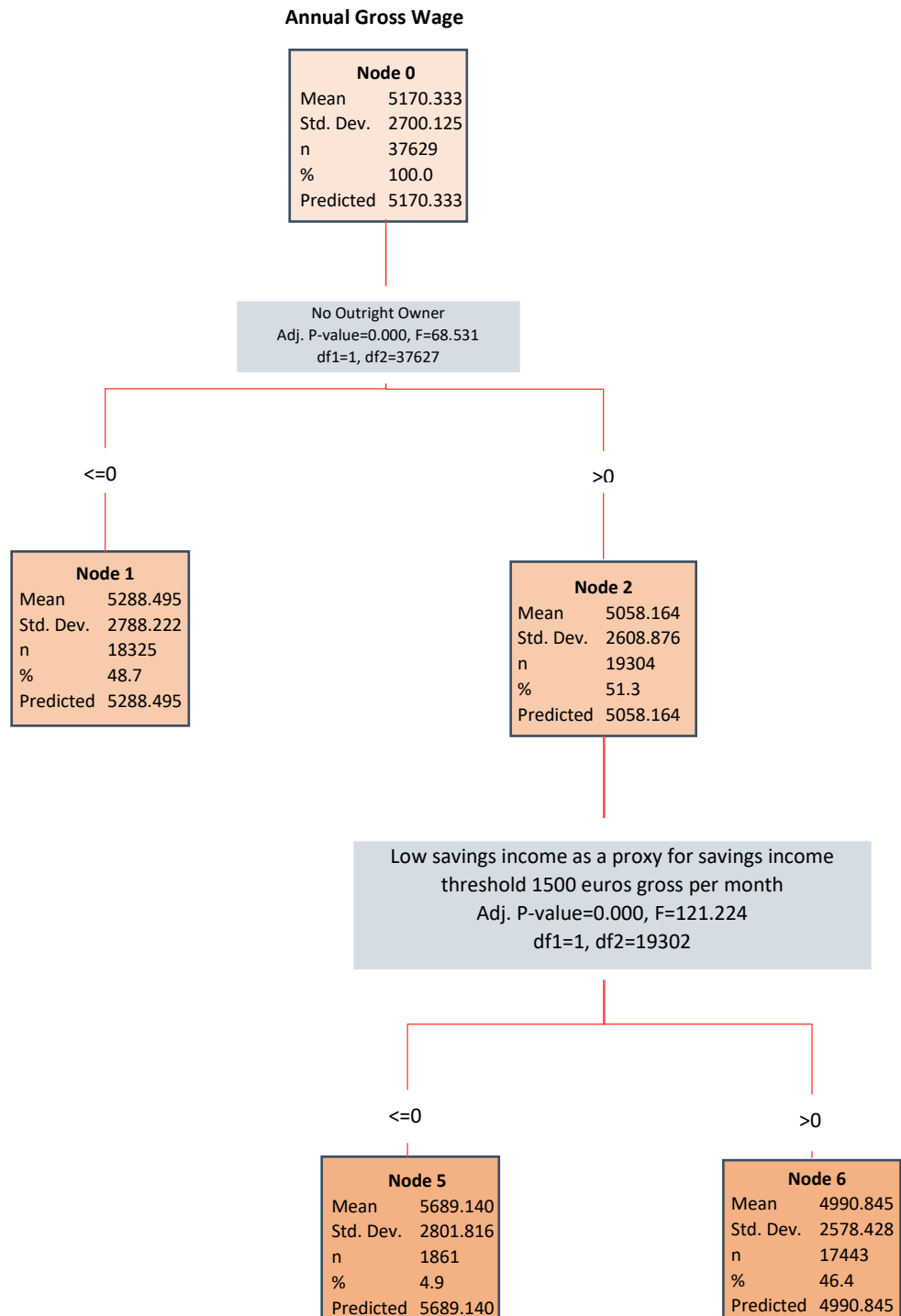
Dependent variable: risk of precariousness of other than domestic workers (n=350,780)	B	Std Error	Wald	Sig.
Female	0,597	0,017	1255,000	0,000
Education Primary, Lower, Secondary	0,700	0,026	702,787	0,000
Upper Secondary	0,305	0,018	275,974	0,000
Professional Experience more than 5 years	-1,663	0,017	9422,518	0,000
Unemployment more than 3 months per year	2,320	0,018	15945,344	0,000
Greek	0,694	0,033	432,101	0,000
BG and RO	0,563	0,029	376,154	0,000
OAS	1,949	0,053	1335,857	0,000
Constant	-2,834	0,019	23283,250	0,000
Nagelkerke R square = 0,236				
Cox & Snell R Square = 0,080				

Data source: EU-SILC (2020), Note: total number of other than domestic workers are 350,780 persons (except those with missing values). Their unweighted count is 3,902 persons.

5.1.4 Precarity: Where economic vulnerability and precarious work meet

To address empirically RQ₃ CTA was employed. Precarious workers who were economically vulnerable in Cyprus were identified as being in a condition of precarity (see Figure 16). From the 37,629 precarious workers, 19,304 were not outright owners of a house or apartment (approximately half of them). Most of them had a disposable household income less than €1,500.00 per month (considered in our analysis as a threshold), and consequently were unable to save a significant amount of money to cope with the effects of unemployment (since they were not the outright owners of a residence). Accordingly, it is estimated that 17,443 workers in Cyprus were precarious and at the same time economically vulnerable in 2019.

Figure 16. Determination of vulnerable workers in Cyprus (2019)



Data source: EU-SILC (2020)

Taking into consideration the results in relation to the number of workers categorised as precarious and in precarity, precarious workers constituted for 9,5% of all employees in 2019, whereas those in precarity (i.e., precarious and economically vulnerable) constituted for 4,4% of all employees. The percentage of workers in precarity could have been at the level of 3,3% if they were provided with the resources necessary to manage the difficulties associated with the first month of being unemployed.

Additionally, it was found that precarious work and economic vulnerability, which are the two components of precarity, were not correlated. This is outlined in a series of figures, of which the most significant ones are presented below (Figures 17-20). The analysis provided in previous sections of this empirical study showed that in general, the characteristics of precarious workers and their relationship to the labour market were almost identical for vulnerable and non-vulnerable workers, with a few minor differences.

Figure 17. Distribution of precarious workers by age and Economic Vulnerability (2019)

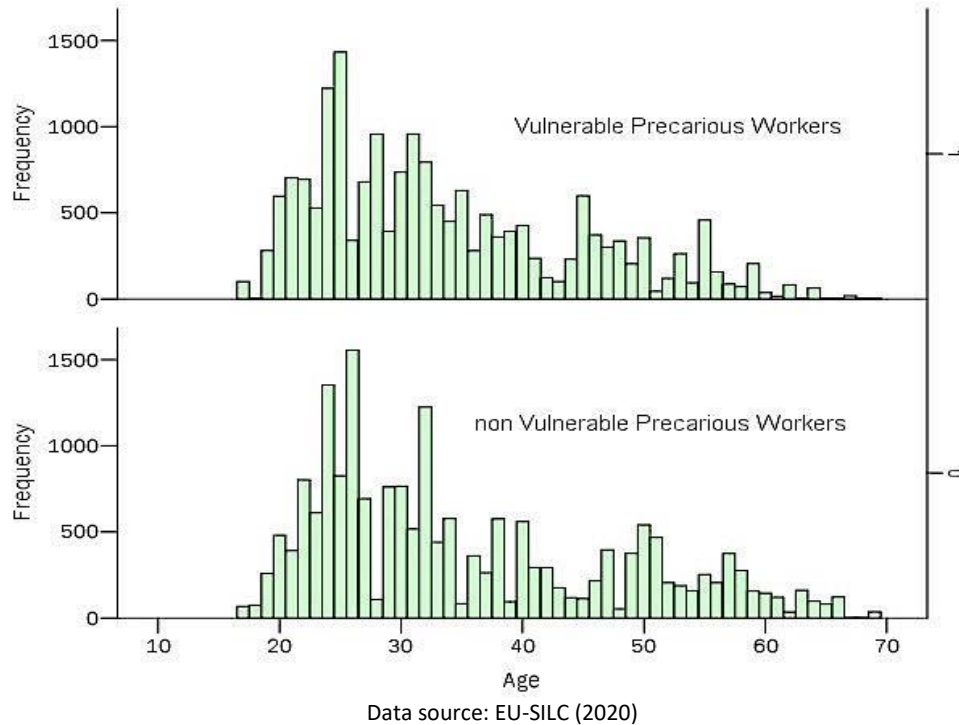


Figure 18. Distribution of precarious workers by professional experience and Economic Vulnerability (2019)

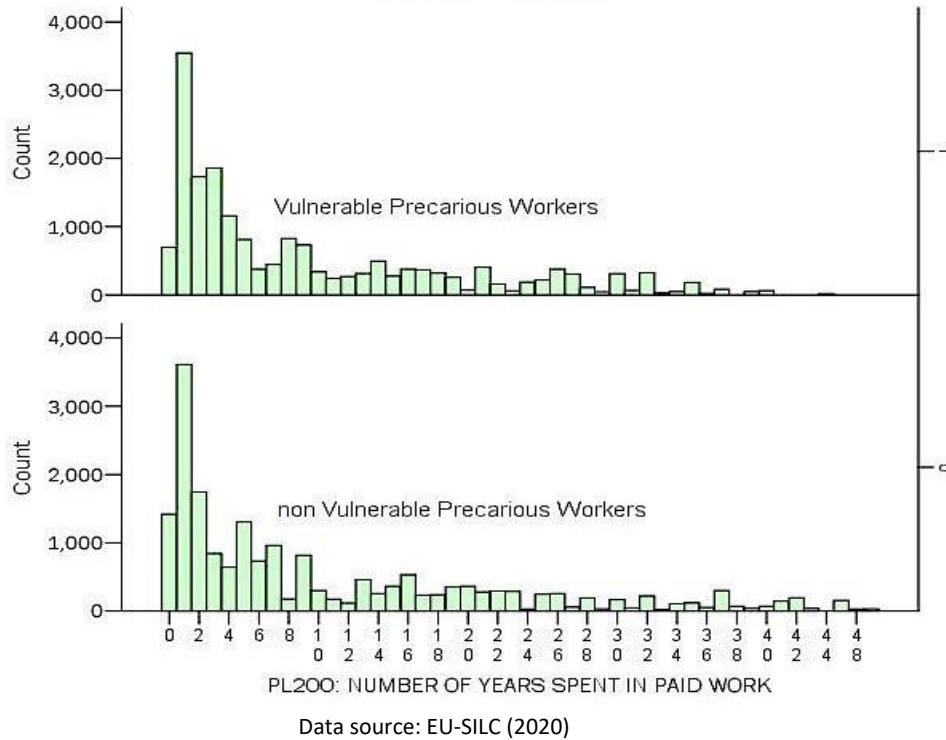


Figure 19. Distribution of precarious workers by education and economic vulnerability (2019)

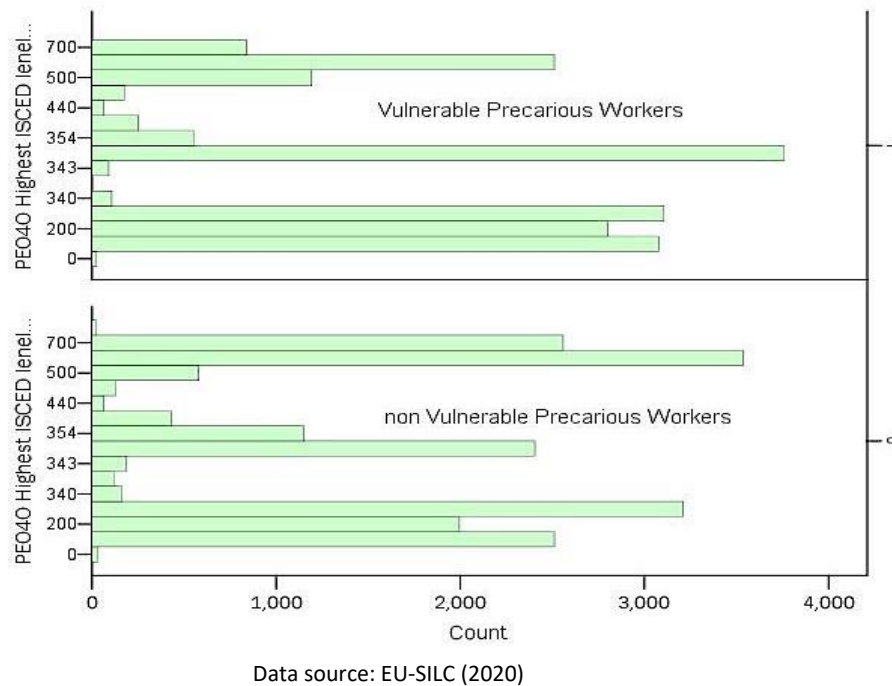
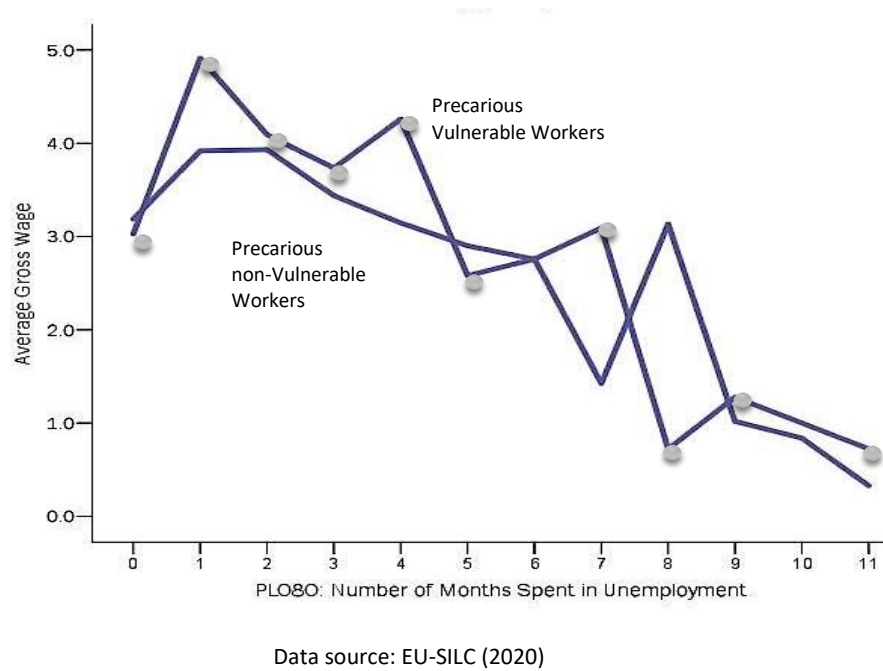


Figure 20. Annual gross wage as a function of duration of unemployment and economic vulnerability



5.2 Qualitative Analysis

Taking into consideration the complex nature of the phenomenon under study it was decided to employ a qualitative analytical framework through the utilisation of a focus group. Participants of the focus group discussion perceive the concept of precariousness as a wide spectrum of people who might share some common characteristics but at the same time demonstrate very important differences.¹⁷ Thus, they argue that perhaps the focus should be on defining the characteristics and implications of precariousness rather than strictly specifying certain social groups. Nevertheless, they agree that if population groups included in the spectrum of precariousness are to be identified, they should include migrant workers, most of the self-employed workers, as well as new labour market entrants.

Regarding *immigrant workers*, the discussion focused on two large groups of people living and working in conditions of precariousness in Cyprus: domestic workers, the vast

¹⁷ The online focus group was implemented on 6/12/2021

majority of whom are women and land workers. Despite the fact that the working conditions of domestic workers are described in their employment contract, the responsibility for ensuring compliance with the terms of the contract does not lie with the Ministry of Labour, but the Police and the Migration Department (Ministry of Interior). Employers and private employment agencies are able to comply with or violate their contractual obligations without any consequences thus setting domestic workers to higher risk of precariousness. In addition, until 2019, domestic workers were contractually not allowed to be members of trade unions in Cyprus. Even after 2019, when this provision was deemed unconstitutional, there are no domestic workers among union members. In order to reverse these extremely unfavourable conditions for domestic workers, participants suggested that unions should try to effectively incorporate domestic workers into their ranks through targeted campaigns. Finally, a crucial issue is that the whole process of regulating domestic workers' employment -from the issuance of employment permits to monitoring of their employment conditions- should become the sole responsibility of the Ministry of Labour as it is the case with all other employees.

Land workers who work -and very often live- in farms also face similar issues. According to the participants, there is no monitoring on whether the terms of their employment contracts are implemented, both regarding their salary and the living conditions standards (housing, food, other resources, etc.). it was suggested that the way to deal with the issue would be to set up and operate a wide range of joint control bodies consisting of Ministry of Labour officials, trade unions and agricultural organisations. Focus group participants considered also crucial to elect migrant workers from the most affected sectors of labour to key positions within the trade union movement.

Regarding *self-employed workers*, participants note that a very large proportion of them are included in the spectrum of precariousness because they are in fact pseudo self-employed professionals being forced into this employment status by their employers to escape from their responsibilities (clearly defined salary and working hours, health care, accident insurance, access to unemployment benefits, severance pay etc.). This status of fictitious (or false) self-employment includes a very wide range of employees from

delivery workers to employees of the wider public sector (e.g., teachers) who have the same job duties as their full-time colleagues, but do not enjoy the same employment status.

In addition, several genuine self-employed people live in precarious conditions, as they do not have guaranteed jobs and/or income for the next period. The phenomenon of pseudo self-employment has reached alarming proportions as it is often imposed not only by private employers but also in the public sector. On the other hand, a small percentage of employees who have the expectation of greater immediate earnings also accept this situation. Utilising a “carrot and stick” method, employers often try to tempt them with slightly higher earnings, provided that they accept to work on a self-employed status. This short-term benefit is nullified by the expulsion of all the provisions entailed in an employment contract. According to the participants, there is a need to highlight the issue of the pseudo self-employed workers in Cyprus, but also to highlight the pitfalls of accepting a short-term personal economic benefit to the detriment of medium/long-term individual and collective interests.

According to the focus group participants, most *new entrants in the labour market* are employed in precarious jobs and are likely to continue being in the same situation for many years. This is particularly true in workplaces or sectors where no unions exist or they are very weak. As a result, collective claims require the simultaneous action of new entrants and unions. In other words, new employees need to take up the initiative for a trade union formation and at the same time, the unions need to support them decisively and effectively in the face of the -most likely- hostile reactions of the employers.

Focus group participants also asserted that in order to deal with the negative consequences of precariousness, all employees in Cyprus should be entitled to a legally guaranteed minimum wage and adequate employment conditions, even if a sectoral collective agreement is not in force. However, according to a participating trade unionist, the provision for a national minimum wage should only apply to employees who are not covered by sectoral collective agreements. That is, when sectoral agreements are in force, the salary provided by the contract should be provided, whereas in cases where no such

agreement exists, the national minimum wage should apply. The trade unionist made explicit reference that with the current conditions in the labour market, it is more likely that wages will be driven down by the horizontal application of a minimum wage. The trade unionist refers to the sectoral agreement in the construction industry which sets the salary of new entrants at €1,800.00. If a horizontal minimum wage which prevails over sectoral agreement is established, employers will only have a legal obligation to pay the minimum wage, which will definitely be significantly lower. Along with the establishment of a national minimum wage, the expansion and legal establishment of collective agreements should be claimed in as many labour sectors as possible.

Participants acknowledged the fact that in order to implement measures aiming at reducing precariousness in the Republic of Cyprus, the collective action of the precarious workers will be needed along with the solidarity of the workers not affected by precarious work conditions. Although much remains to be done, steps have been taken in that direction. Participants cited as an example the creation of [DEDE](#), a union which basically represents precarious workers in higher education. They also referred to the work of [PEKAMOUS](#), a union which leads the fight for the protection of precarious workers' rights in music schools with actions that recently culminated in a strike for two and a half months. With its persistence, PEKAMOUS managed to unite workers, gain recognition, respect and access to the media and that is what allows its members to believe that they will eventually improve their working conditions.

6. Discussion and Conclusions

The present research outlines a three-stage empirical process to measure and address the phenomenon of precarious work and precariousness. Based on the EU-SILC (2020) data for Cyprus, the characteristics of precarious employees, as well as the factors contributing to precariousness, have been identified. In “the new world of work”, precarious workers comprise a heterogeneous group of individuals dealing with the multiple aspects of precariousness.

Among the precarious workers in Cyprus, women, immigrants, and young people in the labour market constituted the majority. Females constituted two-thirds of all precarious workers and were in a significantly more vulnerable position than their male counterparts. More than 40% of precarious workers were female migrant domestic workers. Over half of all precarious workers were under the age of 31.

The nature of employment relationships affects workers' employment status since many temporary employees were employed on a precarious basis. In contrast, job specialisation was a crucial factor in ensuring safe work since the participation of skilled workers in precarious employment was relatively low. Instead, precarious work was associated with low and semi-skilled work, with a concentration in five main categories of professions (ISCO categories 4 to 9). Approximately half of the precarious workers had paid work experience for less than 5 years when the total number of employees had an average of 14 years paid work experience. This finding showed that precarious workers were accumulating professional experience at a much slower rate than non-precarious workers.

A key finding of this study is that precariousness tends to reproduce itself and become a downward spiral that traps workers in precarious existence. Empirical findings have clearly demonstrated that the unskilled and less skilled precarious' slow rate of professional experience accumulation was part of a vicious circle. Precarious work constricted the process of accumulating professional experience, reducing the likelihood of obtaining a better-paying, more stable, non-precarious job. Therefore, only external forces, such as government and/or trade union interventions, will be able to break this downward spiral that keeps workers in a precarious position by implementing appropriate labour market reforms.

Unemployment at regular intervals tended to be more prevalent among precarious workers compared to non-precarious workers. Additionally, both unemployment and the number of working hours contributed significantly to the precarious' low-income levels and continued precariousness. As indicated in the study, precarious workers' income

decreased at a constant rate of €630.00 per month during the duration of their unemployment.

Migrant domestic workers find themselves trapped in conditions of 'hyper-precarity' with different vulnerabilities compared with those of other groups of workers. The empirical findings showed that an event of a break, whether by choice in order to find a new job or by unemployment, was heavily penalised in terms of lost income. This can explain why domestic workers' employment was less frequently interrupted by unemployment as compared to their non-domestic counterparts but at the same time due to the existing legislation, their employers are able to comply with or violate their contractual obligations without any consequences thus, setting domestic workers to higher risk of precariousness. Overall, however, this can be explained as the result of migrant domestic workers in Cyprus experiencing the three elements which constitute the 'framework of hyper-precarity trap': precariousness, vulnerability, and legislation (Lewis *et. al.*, 2019; Anderson, 2007). For non-domestic precarious workers, skills, working experience and the continuity of the employment relationship were the main contributors of income.

An aspect of precarious work in Cyprus that was not uncovered in the quantitative research was revealed during the qualitative analysis. Self-employed individuals should be included in the spectrum of precariousness as they are in fact false (or pseudo) self-employment professionals that have been forced into an employment relationship by their employers. The status of false self-employment applies to a variety of workers, from delivery workers to employees of the broader public sector.

Mapping precariousness in Cyprus confirms Castel's concept of precariousness: the geography of precariousness lies between a protected interim social zone that is distinct from the stable and secure zone of employment and the zone of social exclusion (Castel, 2003). Precarious work is characterised by the constant rotation between non-typical or temporary work and unemployment periods. As an impact of this situation, numerous workers in the labour market of Cyprus do not enjoy a regular income that would provide them with security and a smooth social integration. The incomes derived from underemployment were often inadequate for people to maintain a decent standard of

living. Many precarious workers earned incomes that were below the official poverty threshold. Even though they are not unemployed, they were covered by the working poor scheme (new poverty) (Paugam, 2020).

After identifying the characteristics of precarious employees and the factors that contribute to precariousness, our next step was to investigate precarity as a condition of precariousness intersecting with economic vulnerability. Taking into consideration the results in relation to the number of workers categorised as in precariousness and in precarity, precarious workers constituted for 9,5% of all employees in 2019, whereas those in precarity (i.e., precarious and economically vulnerable) constituted for 4,4% of all employees.

In a neoliberal era, this empirical research and its implications contributes to the discussion of the phenomenon of precarious work and precariousness by: (a) including new variables and introducing new empirical approaches and (b) providing researchers, international labour organizations, governments, labour unions, employers, workers, and other stakeholders with a deeper understanding of the phenomenon which will ultimately lead to new theoretical and policy avenues towards its reduction or even elimination.

Limitations

This study was not able to investigate the effect of the Covid-19 pandemic period on the phenomenon of precarious work and precariousness in Cyprus. As a result of the fact that relevant statistical data were unavailable or incomplete at the time of the implementation of this research, Covid-19 pandemic period was still ongoing.

Future Research

A future study dealing with the same research topic in specific industries, such as tourism and hospitality in Cyprus, will help to identify and highlight the key characteristics and dynamics of each economic activity that contribute to precariousness and precarious employment. An additional future study suggestion that addresses the limitations of the current empirical investigation is to examine the effect of the Covid-19 -pandemic as proxy for future crisis events- on precarious work and precariousness. There is also a need

to examine the issue of the pseudo self-employed workers in Cyprus since the phenomenon of fictitious self-employment has reached alarming proportions as it is often imposed not only by employers but also by the State.

Last but not least, as a result of describing and classifying the internal divisions found within the work world a part of it is being classified as “Precariat”. Based on this, it is necessary and imperative to explore and verify the assumption that the working class remains a single social class in spite of these divisions of labour.

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