



This is a repository copy of *Are marginalised populations more likely to engage in undeclared work in the Nordic countries?*.

White Rose Research Online URL for this paper:  
<http://eprints.whiterose.ac.uk/88086/>

Version: Accepted Version

---

**Article:**

Williams, C.C. and Horodnic, I. (2015) Are marginalised populations more likely to engage in undeclared work in the Nordic countries? *Sociological Research Online*, 20 (3). 11.

<https://doi.org/10.5153/sro.3719>

---

**Reuse**

Unless indicated otherwise, fulltext items are protected by copyright with all rights reserved. The copyright exception in section 29 of the Copyright, Designs and Patents Act 1988 allows the making of a single copy solely for the purpose of non-commercial research or private study within the limits of fair dealing. The publisher or other rights-holder may allow further reproduction and re-use of this version - refer to the White Rose Research Online record for this item. Where records identify the publisher as the copyright holder, users can verify any specific terms of use on the publisher's website.

**Takedown**

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing [eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk) including the URL of the record and the reason for the withdrawal request.



[eprints@whiterose.ac.uk](mailto:eprints@whiterose.ac.uk)  
<https://eprints.whiterose.ac.uk/>

# **Are marginalised populations more likely to engage in undeclared work in the Nordic countries?**

**Colin C Williams and Ioana Horodnic**

## **Abstract**

The aim of this paper is to evaluate the validity of the ‘marginalisation thesis’, which holds that marginalised populations are more likely to participate in the undeclared economy, in relation to Nordic societies. To do this, a 2013 special Eurobarometer survey is reported on who engages undeclared work conducted in three Nordic nations, namely Denmark, Finland and Sweden involving 3,013 face-to-face interviews. Using logistic regression analysis, the finding is that marginalisation thesis is valid in relation to some marginalised populations, namely those difficulties paying their household bills, younger age groups, those defining themselves as working class and those who hold non-conformist norms, values and beliefs on tax compliance. Other marginalised populations however, including the unemployed, those living in rural areas and with less formal education, are revealed to be no more likely to engage in undeclared work than the employed, those in urban areas and with more years in education. Yet others marginalised populations, including women and people living in less affluent Nordic nations, are significantly less likely to participate in the undeclared economy than men and those living in more affluent Nordic countries, thus supporting the reinforcement thesis that undeclared work reinforces, rather than reduces, the disparities produced by the declared economy. The outcome is a call for a more nuanced understanding of the marginalisation thesis as valid for some marginalised populations but not others. The paper concludes by discussing the implications for theory and policy of this more variegated assessment of the marginalisation thesis.

**Key words:** informal sector, shadow economy, marginalisation, tax morality, Scandinavia, Nordic countries.

## **Introduction**

Over the past decade or so, a burgeoning literature has drawn attention to the prevalence of undeclared work in Nordic nations (Apel 1994; Pedersen 2003; Schneider and Williams 2013; Venderseyen et al 2013) and its important role in helping some people secure a livelihood in this region and beyond (Abbot and Wallace 2009, Jönsson 2001; Kapelyushnikov et al. 2012, Kukk and Staehr 2014, Larsen 2013a,b; Lazaridis and Koumandraki 2003; Lonkila 1997; Persson and Malmer 2006; Rodgers and Williams 2009, Sauka and Putniņš 2011, Wallace and Haerpfner 2002, Wallace and Latcheva 2006, Williams and Round 2007a,b,c, 2008a,b,c, Williams et al. 2013). Examining this literature on the undeclared economy, a long-standing belief has been that it is marginalised populations who are more likely to participate in the undeclared economy (Ahmad 2008, Arnstberg and Boren 2003, Castree et al. 2004, Rubić 2013, Sasunkevich 2014, Surdej and Ślęzak 2009). In this ‘marginalisation thesis’, the view is that not only are people living in marginalised areas, such as less affluent countries and peripheral rural areas, more likely to engage in undeclared work (ILO 2012, 2013), but so too are marginalised socio-economic groups, such as unemployed people and those in financial difficulty (Morris

and Polese 2014, Round and Williams 2008, Round et al. 2010a,b, Slavnic 2010, Taiwo 2013). This however, is an a priori assumption rather than an evidence-based finding. Indeed, the only evidence presented to support this marginalisation thesis has come from small-scale surveys in particular localities or populations (Round et al. 2010a,b, Sedlenieks 2003, Smith and Stenning 2006, Stănculescu 2005, Surdej and Ślęzak 2009, Williams and Round 2008a,b, 2010). The aim of this paper in consequence, is to evaluate critically this marginalisation thesis for the first time using an extensive data set, namely a cross-national survey conducted in three Nordic nations involving 3,013 face-to-face interviews.

To do this, the first section provides a brief review of the competing perspectives regarding who participates in undeclared work. This will display the existence of two contrasting views, namely a dominant ‘marginalisation thesis’ which holds that marginalised populations are more likely to engage in undeclared work, and an emergent ‘reinforcement thesis’, which conversely claims that marginalised populations are less likely to participate in such work, meaning that undeclared work reinforces, rather than reduces, the spatial and socio-economic inequalities produced by the declared economy. Displaying how the evidence-base supporting these theses currently consists only of a small number of small-scale surveys of specific localities or populations, the second section then begins to fill this gap by introducing the methodology used in an extensive 2013 Eurobarometer survey of participation in undeclared work in the Nordic region. The third section then reports the results. This will reveal the need for a more nuanced understanding which recognises that although some marginalised populations are more likely to participate in undeclared work (e.g., those with financial difficulties), others are not (e.g., poorer countries, those living in rural areas) and yet others (e.g., women) are significantly less likely to participate in undeclared work. The fourth and final section concludes by discussing the implications of this variegated understanding of the participation of marginalised populations in undeclared work for theory and policy.

At the outset, however, undeclared work needs to be defined. Reflecting the widespread consensus, undeclared work here refers to paid activities not declared to the authorities for tax, social security and/or labour law purposes (European Commission 2007, OECD 2012, Schneider 2013, Schneider and Williams 2013, Vanderseypen et al. 2013, Williams 2004, Williams and Windebank 1998). If a paid activity possesses other absences or shortcomings, then this activity is not here defined as undeclared work. For instance, if the good and/or service being exchanged is illegal (e.g., illegal drugs), then this paid activity is here deemed to be part of the broader ‘criminal’ economy rather than the undeclared economy, and if there is no payment involved, then it is part of the separate unpaid economy. Nevertheless, blurred edges remain regarding what is and what is not included in the undeclared economy, such as when the work is reimbursed with gifts or in-kind favours. In this paper, due to the definition used in the Eurobarometer survey reported, any activity reimbursed with gifts or in-kind is excluded from the definition of undeclared work. This paper also excludes work conducted by formal employees in formal jobs who sometimes receive part of their wage as a declared salary and an additional undeclared (‘envelope’) wage (Williams 2008). Instead, only activities that are wholly undeclared for tax, social security and/or labour law purposes are defined as constituting the undeclared economy.

## **Competing perspectives on participation in the undeclared economy**

Reviewing the literature in Nordic societies and beyond, two competing views can be discerned on the relationship between marginalised populations and participation in undeclared work.

Marginalisation thesis

The first and dominant perspective is the ‘marginalisation thesis’, which holds that marginalised populations are more likely to participate in undeclared work (Ahmad 2008, Arnstberg and Boren 2003, Castree et al 2004, Rubić 2013, Sasunkevich 2014, Surdej and Ślęzak 2009). This is asserted to apply not only to marginalised areas but also marginalised socio-demographic groups. Starting with the view regarding the geographical variations in the level of participation in undeclared work, the long-standing belief that is deemed valid at all spatial scales is that less affluent areas are more likely to participate in undeclared work. This is asserted to be the case not only when comparing global regions (ILO 2012, Williams 2014), but also cross-national variations (Roberts 2013, Rodgers and Williams 2009, Schneider 2013, Schneider and Williams 2013), variations across regions and localities (Williams and Round 2008a, 2010) and urban-rural variations (Button 1984, Williams 2014). It is similarly the case that when discussing the likelihood of participation across population groups, the marginalisation thesis similarly prevails. Marginalised groups are commonly claimed to be more likely to participate in undeclared work. For example, unemployed people are asserted to be more likely to participate in undeclared work than those in formal employment (Castells and Portes 1989, Slavnic 2010, Taiwo 2013), women are asserted to be more likely to participate than men (ILO 2013, Stănculescu 2004) and those with financial difficulties more likely than more affluent population groups (Barbour and Llanes 2013, Smith and Stenning 2006).

#### Reinforcement thesis

Over the past few decades however, a reinforcement thesis has begun to contest this dominant marginalisation thesis. This asserts that engagement in undeclared work is less likely amongst marginalised populations, which means that undeclared work does not reduce the disparities produced by the declared economy but rather, consolidates them. On a spatial scale for instance, it has been argued that populations living in affluent countries, regions and localities are more likely to participate in undeclared work than populations in less affluent countries, regions and localities (van Geuns et al 1987, Williams et al 2013). Similarly, it has been claimed that unemployed people are less likely to engage in undeclared work than people who have declared jobs (Blalabanova and McKee 2002, Kaitedliou et al. 2013, MacDonald 1994, Moldovan and Van de Walle 2013, Pahl 1984, Renooy 1990, Williams 2001, Williams and Round 2007c, 2008c), that women are less likely to engage in undeclared work than men (McInnis-Dittrich 1995, Williams 2011, Williams and Round 2008b, 2009) and those with financial difficulties less likely to engage than more affluent population groups (Neef 2002, Williams 2004, Williams et al. 2013).

Examining the evidence-base supporting either the marginalisation or reinforcement theses, the finding is that it is largely composed of small-scale surveys of specific localities and/or population groups (see, for example, Karjanen 2014, Kovác 2014, Moldovan and van de Walle 2013, Morris and Polese 2014a,b, Mróz 2012, Müller and Miggelbrink 2014, Onoshchenko and Williams 2013). For example, several papers involve a study of just one person (Polese 2013, Woolfson 2007) whilst another survey of a particular city is based on just 15 interviews (Sedlenieks 2003) and even the larger surveys only involve 400 interviews (Williams and Round 2010). Given this small and patchy evidence-base, this paper begins to fill this major gap by reporting a more extensive survey.

#### **Methodology: examining participation in undeclared work in Nordic countries**

To do so, we here report Special Eurobarometer No. 402. This survey on participation in the undeclared economy was undertaken in April and May 2013 and includes 27,563 face-to-face interviews in all 28 European Union member states, of which 3,013 interviews were conducted in

the Nordic nations of Denmark, Finland and Sweden. Interviews were conducted face-to-face in the national language with adults aged 15 years and older. In every country, a multi-stage random (probability) sampling methodology was used (the number of interviews varying from 500 in smaller countries to 1,500 in larger nations). This ensured that on the issues of gender, age, region and locality size, each country as well as each level of sample (e.g., Central and Eastern Europe) is representative in proportion to its population size. For the univariate analysis therefore, we employed the sampling weighting scheme as the literature suggests (Solon et al. 2013, Winship and Radbill 1994, Sharon and Liu 1994). For the multivariate analysis however, there is a debate over whether such a weighting scheme should be used (Solon et al. 2013, Winship and Radbill 1994, Sharon and Liu 1994, Pfeffermann 1993). Given that the vast majority of this literature specifies that weighting is not recommended, we here decided not to use the weighting scheme for the multivariate analysis.

Given the sensitive nature of the issue under investigation, the interview schedule followed best practice (see Ram and Williams 2007) and built rapport with the participants before posing the more sensitive questions regarding their participation in undeclared work. Firstly, the respondents were ensured that their answers were strictly anonymous. Then, pursuing a gradual approach to the more sensitive questions, the interview schedule commenced with questions about their attitudes towards undeclared work, followed by questions on whether they had purchased goods and services on an undeclared basis. Only then were questions posed in relation to their participation in undeclared work. Analysing the responses of interviewees regarding the perceived reliability of the interviews in these Nordic countries, the finding is that cooperation was deemed bad in only 0.3 per cent of the interviews. Cooperation was deemed excellent in 85.8 per cent, fair in 11.9 per cent and average in 2 per cent. It is worth mentioning that the Eurobarometer data were obtained through a cross-sectional study, a survey design which means that one cannot examine the dynamics of relationships but which is frequently used to examine relationships between variables.

Given this, attention can turn to an analysis of the results. The hypothesis is that participation in the undeclared economy varies according to socio-demographic variables (gender, age, marital status, age when stopped full time education, people 15+ years in own household, number of children, tax morality), socio-economic variables (employment status, household financial circumstances) and spatial characteristics (urban-rural character of the area in which the respondent lives). To analyse this, we here use logistic regression analysis. The dependent variable measures whether respondents participated in the undeclared economy and is based on the question 'Apart from regular employment, have you yourself carried out any undeclared paid activities in the last 12 months?'. The independent variables used to analyse whether marginalised populations are more likely to participate in the undeclared economy are divided into the following categories: socio-demographic (gender, age, marital status, social class, age when stopped full time education, people 15+ in own household, number of children and tax morality index), socio-economic (employment status and difficulties in paying bills) and spatial variables (area respondent lives). See the Appendix for a description.

### **Findings: who participates in undeclared work in Nordic societies?**

#### Descriptive statistics

Examining the 3,013 face-to-face interviews, and as Table 1 reveals, 6.2 per cent of participants report undertaking undeclared work in the 12 months prior to the interview. A further 1.2 per cent of the respondents refused to answer or said that they did not know. Even if participation in undeclared work is a sensitive issue and the differences between the reported situation and lived practice might be significant, this survey finds that 1 in 16 citizens of the Nordic nations countries self-reported that they had participated in undeclared work in the year prior to

interview. Investigating how much they earned from their undeclared work, the mean earnings are €1,041 compared with an EU-28 mean of €414, with 18 per cent earning in the range of €1-100, 9 per cent €101-200 and 22 per cent between €201-500. Therefore, 49 per cent of the people in Nordic nations who report working in the undeclared economy earn €500 or less. A further 20 per cent earn €501-1000 and 21 per cent earn more than €1000. Some 10 per cent nevertheless, either do not remember how much they earned, do not know or refused to answer.

INSERT TABLE 1 HERE

To start to evaluate who participates in the undeclared economy and the relevance of the marginalisation thesis by examining whether poorer Nordic nations have higher participation rates than more affluent countries, Table 1 reports the cross-national variations. The finding is that the phenomenon is not evenly spread across the EU with Nordic countries having a higher level of participation in undeclared work (6.2 per cent compared with 3.8 per cent). This, therefore, supports the reinforcement thesis in the sense that the more affluent Nordic region of the EU has a higher rate of participation in undeclared work than the other relatively poorer EU regions. Turning to the three Nordic countries, meanwhile, participation in undeclared work is highest in Denmark (9 per cent) and Sweden (7 per cent) and lowest in Finland (3 per cent). Comparing these cross-national variations in the likelihood of participation in undeclared work with cross-national variations in the level of affluence of these nations (measured using personal purchasing power standards), a statistically significant relationship is again found between the participation rate in undeclared work and level of affluence ( $p < 0.05$ ). The direction of the association is that the more affluent societies have higher participation rates in undeclared work. This, therefore, again supports the reinforcement thesis rather than the marginalisation thesis. It is similarly the case when average earnings are examined. Those engaging in undeclared work and living in the most affluent Nordic nation of Sweden earn more money from undeclared work (€1,346 on average) than the average for the Nordic countries (€1041) whilst those living in Denmark and Finland earn less than the Nordic countries average (€821 and €420 respectively). Again, this is a statistically significant relationship which supports the reinforcement rather than marginalisation thesis. Those participating in undeclared work in affluent societies earn more than those in poorer countries. Examining the cross-national variations, therefore, the evidence refutes the marginalisation thesis and supports the reinforcement thesis. Not only are those living in the relatively affluent Nordic region more likely to participate in undeclared work than those living in other relatively parts of the EU, but those living in relatively affluent Nordic countries are both more likely to participate in undeclared work and earn more from their undeclared work, than those living in relatively poorer Nordic countries.

Turning to socio-demographic, socio-economic and other forms of spatial variation in who participates in the undeclared economy, Table 2 reveals that, contrary to the marginalisation thesis, participation is higher amongst men than women (9 per cent of men participate in undeclared work but only 4 per cent of women) and women earn less than men from such work (i.e., their earnings from undeclared work are 90 per cent the amount earned by men). Furthermore, the unemployed are no more likely to participate in undeclared work than the employed and even when they do, their earnings are 35 per cent the amount earned by the employed. This is further supported by the results of a Chi square test of independence which examined the relationship between employment status and engagement in undeclared work. The relation between these variables is not significant,  $X^2(1, N = 2,800) = 2.167, p > .05$ . The unemployed are therefore no more likely to engage in undeclared work than are those in employment. Neither do participants living in rural areas engage in undeclared work to a greater extent than participants living in small or middle sized towns. The tentative suggestion from these descriptive statistics therefore, is that the marginalisation thesis does not apply when

discussing women compared with men, unemployed people compared with the employed and those living in rural areas compared with urban areas. Instead, the reinforcement thesis tentatively appears to be valid so far as gender, employment status and areas are concerned.

#### INSERT TABLE 2 ABOUT HERE

However, when examining other population groups, it is more the marginalisation thesis that tentatively appears to be applicable. Not only are younger age groups more likely to participate in undeclared work than older age groups, but so too are those who self-define themselves as working class compared with those defining themselves as middle or higher class and those who have difficulty paying bills compared with those who seldom have difficulties. For all these population groups, the marginalisation thesis appears to be valid.

Examining these findings therefore, the tentative conclusion is that it is not possible to assert that either the marginalisation or the reinforcement thesis is universally applicable at all spatial scales and across all socio-demographic and socio-economic groups. Instead, the marginalisation thesis appears to be applicable when analysing some population groups but the reinforcement thesis for others.

Analysis: are marginalised populations more likely to participate in undeclared work?

We analyse the hypothesis that participation in the undeclared economy varies according to socio-demographic variables (gender, age, marital status, age when stopped full time education, people 15+ years in own household, number of children, tax morality index), socio-economic variables (employment status, difficulty in paying bills) and spatial characteristics (area respondent lives) when other variables are held constant. The binary response dependent variable is whether or not a respondent carried out any undeclared paid activities in the last 12 months and therefore we employed a logistic regression.

To analyse the effect of the various independent variables on participation in the undeclared economy when other variables are held constant, an additive model is used. The first stage model (M1) includes solely the socio-demographic factors to examine their association while the second stage model (M2) adds socio-economic factors alongside the socio-demographic factors, and the third stage model (M3) adds spatial factors to the socio-demographic and socio-economic factors to examine their association with the participation in the undeclared economy. Table 3 reports the results.

#### INSERT TABLE 3 HERE

Model 1 in Table 3 shows that the marginalisation thesis is valid when analysing various socio-demographic disparities in participation rates. Younger age groups are significantly more likely to participate in the undeclared economy, as are those who self-define themselves as working class compared with middle class. Those more tolerant of undeclared work and holding non-conformist attitudes towards tax compliance are also more likely to participate in such endeavour. This is important because it reveals that those marginalised in the sense that their norms, values and beliefs regarding undeclared work do not conform to the formal institutions (i.e., the codes, regulations and legislation) are more likely to participate in such work (Williams and Martinez 2014a,b). The implication, therefore, is that tax morality may well be a useful proxy indicator of the prevalence of undeclared work.

Contrary to the marginalisation thesis and in support of the reinforcement thesis however, men are found to be significantly more likely to participate in the undeclared economy than

women, reflecting how the exclusion of women from the formal labour market is reinforced when examining the undeclared labour market.

No evidence is found to support the marginalisation (or reinforcement) thesis nevertheless, when analysing the marital status, the age people stopped full time education, the number of people in household and the number of children. As such, when considering the socio-demographic variables, a variegated understanding of the validity of the marginalisation thesis is required. The marginalisation thesis is valid in relation to some marginalised population groups (e.g., younger people, those who consider themselves as belonging to the working class and those with non-conformist attitudes), but not others (e.g., women). To further investigate if there is a need to analyse interactions between gender and age and gender and marital status respectively, we compared their distribution against the dependent variable (i.e., participating in undeclared work). The differences expressed in percentage points are small when comparing the analysed categories. Therefore, we did not identify different patterns between men and women by age or by marital status with respect to their engagement in undeclared work.

When Model 2 adds the socio-economic factors of employment status and financial circumstances people face to the socio-demographic variables, there are no major changes to the association of the socio-demographic variables on participation in undeclared work. However, the additional finding is that being unemployed has no significant association with participation in undeclared work. This finding, therefore, refutes not only the long-standing view of the marginalisation thesis that the unemployed are more likely to participate in undeclared work. It also refutes the counter-argument which has become increasingly popular, grounded in the reinforcement thesis, which asserts that the unemployed are less likely to engage in undeclared work because: they lack the resources (e.g., car, tools) required to engage in a wide range of undeclared work (Williams 2001); receive and hear about fewer opportunities to engage in undeclared work due to their smaller and more confined social networks (e.g., Komter 1996, Williams 2014); lack the skills and competencies to work undeclared (Mingione 1991, Renooy 1990) since if their skills and competencies are inappropriate for finding declared employment, there is no reason to believe that they are appropriate for finding undeclared work, and the unemployed fear being reported to the authorities, not least because claiming welfare benefits illicitly is commonly viewed as a more serious offence than tax evasion (Cooke 1997, Williams 2014, Williams et al. 2013).

This refutation of the marginalisation (and reinforcement) thesis is not the case, however, when examining other socio-economic characteristics. Those having difficulties paying the household bills most of the time are significantly more likely to participate in undeclared work than those more seldom having difficulties. Put another way, they are more likely to be forced into undeclared work out of necessity to make ends meet and as a last resort than those witnessing fewer financial difficulties. As such, although unemployment per se does not increase the likelihood of participation in undeclared work, having household financial difficulties is significant in increasing the likelihood of participation, thus providing support for the marginalisation thesis. These financial difficulties in paying household bills may well be the result of for example over-extending their level of credit in order to acquire material goods or services. However, this will require further research beyond the scope of this survey, in order to identify the reasons why households find themselves having such difficulties in paying household bills.

When other spatial factors are added in Model 3, there are no major changes to the significance of the socio-demographic and socio-economic characteristics discussed above in relation to participation in undeclared work and the directions of the associations remain the same. However, no significant relationship is found between living in rural or urban areas and engagement in undeclared work. There is thus no evidence to support the marginalisation thesis that those in marginal rural areas are more likely to engage in undeclared work. Neither however,



does evidence support the inverse reinforcement thesis that participation in the undeclared economy reinforces the disparities between rural and urban areas produced by the declared economy.

## **Discussion and Conclusions**

To evaluate the validity of the marginalisation thesis, this paper has reported the results of a 2013 survey of who participates in undeclared work in three Nordic countries, namely Denmark, Finland and Sweden. Using logistic regression analysis, this has revealed support for the marginalisation thesis in relation to some marginalised population groups. Younger age groups are significantly more likely to engage in undeclared work, as are those who self-define themselves as working class compared with the middle class, those more tolerant of undeclared work and holding non-conformist attitudes towards tax compliance (who are marginalised in the sense that their values and attitudes do not conform to those of the codes, regulations and laws of the formal institutions), and those who have difficulties most of the time paying the household bills. Contrary to the marginalisation thesis and in support of the reinforcement thesis meanwhile, more affluent European regions and countries are found to be significantly more likely to work undeclared than poor regions and countries, as are men more likely to engage in undeclared work than women. No evidence is found to support the marginalisation (or reinforcement) thesis however, so far as marital status, employment status, educational level, the number of children in the household or the urban-rural divide is concerned.

Examining the implications for theorising participation in undeclared work, this paper thus reveals that although the marginalisation thesis applies so far as the age, class, tax morality and household financial circumstances are concerned, when cross-national, European regional and gender variations are analysed, the reinforcement thesis is valid in the sense that participation in undeclared work reinforces the cross-national, European regional and gender disparities in the declared economy. When other characteristics are analysed moreover, such as marital status, employment status, educational level, the urban-rural divide and number of children, no evidence is found to support either the marginalisation or reinforcement thesis. The outcome is a need for a more variegated understanding of the validity of the marginalisation thesis. Whether the same findings prevail when analysing who participates in undeclared work in other global regions and in particular nations, regions and localities, now needs to be evaluated. So too could future studies complement the quantitative method used in this paper with qualitative methods to provide a richer and more nuanced understanding of whether for example marginalized populations have different motives underpinning their participation in undeclared work.

Turning to the implications of these findings for policy, the first important consequence is that this study reveals the specific populations that need to be targeted when tackling undeclared work in these Nordic nations. In recent years for example, there has been an emphasis in the European Union on targeting poorer EU nations when allocating resources through European structural funds to tackling undeclared work (Dekker et al. 2010, European Commission 2014b). However, the findings of this survey reveal that the populations of these poorer regions and countries are not disproportionately engaged in undeclared work. This suggests the need for a rethinking of the spatial allocation of European funds for tackling undeclared work. This survey also displays that the current targeting of the unemployed by many governments when tackling undeclared work is also a mistake, at least so far as these Nordic nations are concerned. The unemployed are not significantly more likely to participate in undeclared work. Popular policy initiatives such as seeking to smooth the transition from unemployment to self-employment therefore, do not appear worthwhile pursuing in these Nordic nations. However, this survey does reveal that it might be worthwhile targeting other marginalised populations when tackling

undeclared work, such as younger people and those who most of the time witness difficulties paying the household bills. In other words, this analysis provides a useful risk assessment of the different marginalised populations which enables not only the validity of the currently targeted populations to be evaluated but also the identification of possible groups that might be targeted in future policy initiatives.

It also provides clues regarding the types of policies which should be pursued when tackling undeclared work. All societies have codified laws and regulations that define the legal rules of the game (Baumol and Blinder 2008; North 1990; Webb et al. 2013, 2014; Williams and Vorley 2014). Informal institutions meanwhile, are the norms, values and beliefs that shape what is socially acceptable (North 1990, Webb et al. 2013, 2014). The finding of this paper is that in Nordic societies, those holding more tolerant attitudes towards undeclared work and whose norms, values and beliefs do not conform to the codes, regulations and laws of the formal institutions, are more likely to engage in undeclared work, as has been found in previous studies (Alm et al. 1995; Riahi-Belkaoui 2004; Richardson 2006). To tackle undeclared work therefore, a reduction in this institutional incongruence is required. To achieve this, two options exist. On the one hand, one can seek to change the norms, values and beliefs of the population regarding the acceptability of working in the undeclared economy. This might be achieved by pursuing tax education initiatives, awareness raising campaigns and normative appeals that seek to improve the level of tax morality. On the other hand, one can change the formal institutions to align with the norms, values and beliefs of the wider society. This might be achieved by improving firstly, procedural justice, namely whether citizens believe the authorities are treating them in a respectful, impartial and responsible manner (Braithwaite and Reinhart 2000, Murphy 2005; Taylor 2005; Tyler 1997, Wenzel 2002), secondly, procedural fairness, which is whether citizens believe they are paying their fair share compared with others (Kinsey and Gramsick 1993; Wenzel 2004a,b) and third and finally, redistributive justice, which is whether citizens believe they are receiving the goods and services they deserve given the taxes they pay (Kinsey and Gramsick 1993; Kinsey et al. 1991; Richardson and Sawyer 2001; Thurman et al. 1984). This institutional analysis of the reasons for undeclared work and resultant policy response of creating institutional congruence between informal and formal institutions therefore, is an alternative policy approach for tackling undeclared work, which moves beyond the conventional approach in Nordic nations of simply deterring engagement in undeclared work by increasing the penalties and chances of detection, or providing financial incentives to operate in the declared economy (see Brunk 2013a,b,c; Jørgensen 2013; Virtanen, 2013).

In sum, this paper reveals for the first time the need for a more variegated approach towards the marginalisation thesis. Although this thesis is valid when considering some marginalised populations who are more likely to engage in undeclared work, it is not valid in relation to other marginalised populations. If this paper thus stimulates the emergence of a more nuanced understanding of the validity of the marginalisation thesis, then it will have fulfilled its major intention. If this then leads to a shift in policy as a result of this variegated understanding, not least in terms of the populations targeted when tackling this sphere and how resources are allocated, then it will have fulfilled its wider objective.

## **Acknowledgements**

This work was supported by the European Commission's Framework 7 Industry-Academia Partnerships Programme (IAPP) under grant no. 611259 entitled 'Out of the shadows: developing capacities and capabilities for tackling undeclared work' (GREY). The usual disclaimers apply.

## References

- ABBOT, P and WALLACE, C. (2009) 'Patterns of participation in the formal and informal economies in the Commonwealth of Independent States', *International Journal of Sociology* Vol. 39, No. 2, p. 12-38.
- AHMAD, A.N. (2008) 'Dead men working: time and space in London's ('illegal') migrant economy', *Work, Employment and Society*, Vol. 22, No. 2, p. 301-18.
- ALM, J., SANCHEZ, I. and DE JUAN, A. (1995) 'Economic and non-economic factors in tax compliance', *Kyklos*, Vol. 48, p. 3-18.
- APEL, M. (1994) *An Expenditure-based Estimate of Tax Evasion in Sweden*. Stockholm: RSV Tax Reform Evaluation Report No.1.
- ARNSTBERG K. and BOREN, T. (2003) *Everyday Economy in Russia, Poland and Latvia*. Stockholm: Södertörns högskola.
- BALABANOVA, D. and McKEE, M. (2002) 'Understanding informal payments for health care: the example of Bulgaria', *Health Policy*, Vol. 62, No. 3, p. 243-73.
- BARBOUR, A. and LLANES, M. (2013) *Supporting people to legitimise their informal businesses*. York: Joseph Rowntree Foundation.
- BAUMOL, W.J. and BLINDER, A. (2008) *Macroeconomics: principles and policy*. Cincinnati, OH: South-Western Publishing.
- BRAITHWAITE, V. and REINHART, M. (2000) *The Taxpayers' Charter: does the Australian Tax Office comply and who benefits*. Canberra: Centre for Tax System Integrity Working Paper no.1, Australian National University.
- BRUNK, T. (2013a) 'Statutory staff registers in restaurants and hairdressers, Sweden', available at <http://www.eurofound.europa.eu/areas/labourmarket/tackling/cases/se003.htm> (accessed 11 May 2014)
- BRUNK, T. (2013b) ID06 project in construction sector, Sweden  
<http://www.eurofound.europa.eu/areas/labourmarket/tackling/cases/se002.htm> (accessed 11 May 2014)
- BRUNK, T. (2013c) 'Tax deductions for domestic service work, Sweden', available at <http://www.eurofound.europa.eu/areas/labourmarket/tackling/cases/se015.htm> (accessed 11 May 2014).
- BUTTON, K. (1984) 'Regional variations in the irregular economy: a study of possible trends', *Regional Studies*, Vol. 18, No. 3, p. 385-92.
- CASTELLS, M. and PORTES, A. (1989) 'World underneath: the origins, dynamics and effects of the informal economy', in Portes, A., Castells, M. and Benton, L.A. (Eds.) *The Informal Economy: studies in advanced and less developing countries*. Baltimore: John Hopkins University Press, 19-41.
- CASTREE, N., COE, N., WARD, K. and SAMERS, M. (2004) *Spaces of Work: global capitalism and the geographies of labour*. London: Sage.
- COOK, D. (1997) *Poverty, Crime and Punishment*. London: Child Poverty Action Group.
- DEKKER, H., ORANJE, E., RENOOPY, R., ROSING, F. and WILLIAMS, C.C. (2010) *Joining up the fight against undeclared work in the European Union*. Brussels: DG Employment, Social Affairs and Equal Opportunities.
- EUROPEAN COMMISSION (2007) *Stepping up the fight against undeclared work*. Brussels: European Commission.
- EUROPEAN COMMISSION (2014a) *Employment and Social Developments in Europe 2013*. Brussels: European Commission.
- EUROPEAN COMMISSION (2014b) *Decision of the European Parliament and of the Council on establishing a European platform to enhance cooperation in the prevention and deterrence of undeclared work COM(2014) 221 final*. Brussels: European Commission.

- ILO (2012) *Statistical Update on Employment in the Informal Economy*. Geneva: International Labour Organisation.
- ILO (2013) *Women and Men in the Informal Economy: statistical picture*. Geneva: International Labour Organisation.
- JöNSSON, H. (2001), 'Undeclared work in Sweden: results and recommendations', Paper presented at the European Scientific Workshop on The Shadow economy: empirical evidence and new policy issues at the European level, Ragusa, Sicily, September 20-21.
- JORGENSEN, C. (2013) 'Home-Job Plan, Denmark', available at <http://www.eurofound.europa.eu/areas/labourmarket/tackling/cases/dk015.htm> (accessed 14 May 2014).
- KAITEDLIDOU, D.C., TSIRONA, C.C., GALANIS, P.A., SISKOU, O., MLADOVSKY, P., KOULI, E.G., PREZERAKOS, P.E., THEODOROU, M., SOURTZI, P.A. and LIAROPOLOUS, L.L. (2013) 'Informal payments for maternity health services in public hospitals in Greece', *Health Policy*, Vol. 109, No. 1, p. 23-40.
- KAPELYUSHNIKOV, R., KUZNETSOV, A. and KUZNETISOVA, O. (2010) 'The role of the informal sector, flexible working time and pay in the Russian labour market mode', *Post-Communist Economies*, Vol. 24, No. 2, p. 177-90.
- KARJANEN, D. (2014) 'When is an illicit taxi driver more than a taxi driver? case studies from transit and trucking in post-socialist Slovakia', in Morris, J. and Polese, A. (Eds.) *The Informal Post-Socialist Economy: embedded practices and livelihoods*. London: Routledge, 102-17.
- KINSEY, K. and GRAMSICK, H. (1993) 'Did the tax reform act of 1986 improve compliance?: three studies of pre- and post-TRA compliance attitudes', *Law and Policy*, Vol. 15, p. 239-325.
- KINSEY, K., GRAMSICK, H. and SMITH, K. (1991) 'Framing justice: taxpayer evaluations of personal tax burdens', *Law and Society Review*, Vol. 25, p. 845-73.
- KLEVEN, H.J., KNUDSEN, M.B., KREINER, C.T., PEDERSEN, S. and SAEZ, E. (2011) 'Unwilling or unable to cheat? Evidence from a tax audit experiment in Denmark', *Econometrica*, Vol. 79, p. 651-92.
- KOMTER, A. (1996) 'Reciprocity as a principle of exclusion: gift giving in the Netherlands', *Sociology*, Vol. 30, No. 2, p. 299-316.
- KOVACS, B. (2014) 'Nannies and informality in Romanian local childcare markets', in Morris, J. and Polese, A. (Eds.) *The Informal Post-Socialist Economy: embedded practices and livelihoods*. London: Routledge, 67-84.
- KUKK, M. and STAEHR, K. (2014) 'Income underreporting by households with business income: evidence from Estonia', *Post-Communist Economies*, Vol. 26, No. 2, p. 257-26.
- LARSEN, L.B. (2013a) 'Buy or barter? Illegal yet licit purchases of work in contemporary Sweden', *Focaal: Journal of Global and Historical Anthropology*, Vol. 66, p. 75-87.
- LARSEN, L.B. (2013b) 'The making of a good deal: dealing with conflicting and complementary values when getting the car repaired informally in Sweden', *Journal of Cultural Economy*, Vol. 6, No. 4, p. 419-33.
- LAZARIDIS, G. and KOUMANDRAKI, M. (2003) 'Survival ethnic entrepreneurs in Greece: a mosaic of informal and formal business activities', *Sociological Research Online*, Vol. 8, No. 2, <http://www.socresonline.org.uk/8/2/lazaridis.html>
- LONKILA, M. (1997) 'Informal Exchange Relations in Post-Soviet Russia: A Comparative Perspective', *Sociological Research Online*, Vol. 2, No. 2, <<http://www.socresonline.org.uk/2/2/9.html>>
- MacDONALD, R. (1994) 'Fiddly jobs, undeclared working and the something for nothing society', *Work, Employment and Society*, Vol. 8, No. 4, p. 507-30.

- McINNIS-DITTRICH, K. (1995) 'Women of the shadows: Appalachian women's participation in the informal economy', *Affilia: Journal of Women and Social Work*, Vol. 10, No. 4, p. 398-412.
- MINGIONE, E. (1991) *Fragmented Societies: a sociology of economic life beyond the market paradigm*. Oxford: Basil Blackwell.
- MOLDOVAN, A. and VAN DE WALLE, S. (2013) 'Gifts or bribes: attitudes on informal payments in Romanian healthcare', *Public Integrity*, Vol. 15, No. 4, p. 383-95.
- MORRIS, J. and POLESE, A. (2014a) 'Introduction: informality – enduring practices, entwined livelihoods', in Morris, J. and Polese, A. (Eds.) *The Informal Post-Socialist Economy: embedded practices and livelihoods*. London: Routledge, 1-18.
- MORRIS, J. and POLESE, A. (2014b) 'Informal health and education sector payments in Russian and Ukrainian cities: structuring welfare from below', *European Urban and Regional Studies*, doi:10.1177/0969776414522081.
- MORRIS, L. (1994) 'Informal aspects of social divisions', *International Journal of Urban and Regional Research*, Vol. 18, No. 1, p. 112-26.
- MROZ, B. (2012) 'Entrepreneurship in the shadow: faces and variations of Poland's informal economy', *International Journal of Economic Policy in Emerging Economies*, Vol. 5, No. 3, p. 197-211.
- MULLER, K. and MIGGELBRINK, J. (2014) 'The glove compartment half full of letters: informality and cross-border trade at the edge of the Schengen area', in Morris, J. and Polese, A. (Eds.) *The Informal Post-Socialist Economy: embedded practices and livelihoods*. London: Routledge, 151-64.
- MURPHY, K. (2005) 'Regulating more effectively: the relationship between procedural justice, legitimacy and tax non-compliance', *Journal of Law and Society*, Vol. 32, No. 4, p. 562-89.
- NEEF, R. (2002) 'Aspects of the informal economy in a transforming country: the case of Romania', *International Journal of Urban and Regional Research*, Vol. 26, No. 2, p. 299-322.
- NORTH, D.C. (1990) *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- OECD (2012) *Reducing opportunities for tax non-compliance in the underground economy*. Paris: OECD.
- ONOSCHENKO, O. and WILLIAMS, C.C. (2013) 'Paying for favours: evaluating the role of blat in post-Soviet Ukraine', *Debate: Journal of Contemporary Central and Eastern Europe*, Vol. 21, No. 2-3, p. 259-77.
- PAHL, R.E. (1984) *Divisions of Labour*. Oxford: Blackwell.
- PEDERSEN, S. (2003) *The Shadow Economy in Germany, Great Britain and Scandinavia: a measurement based on questionnaire surveys*. Copenhagen: The Rockwool Foundation Research Unit.
- PERSSON, A. and MALMER, H. (2006) *Purchasing and performing undeclared work in Sweden: part 1: results from various studies*. Stockholm: Skatteverket.
- PFEFFERMANN, D. (1993) 'The role of sampling weights when modelling survey data', *International Statistical Review*, Vol. 61, No. 2, p. 317-37.
- POLESE, A. (2014) 'Drinking with Vova: an individual entrepreneur between illegality and informality', in Morris, J. and Polese, A. (Eds.) *The Informal Post-Socialist Economy: embedded practices and livelihoods*. London: Routledge, 85-101.
- RAM, M. and WILLIAMS, C.C. (2008) 'Making visible the hidden: researching off-the-books work', in Buchanan, D. and Bryson, A. (Eds.) *Handbook of Organizational Research Methods*. London: Sage, 141-60.

- RENOOY, P. (1990) *The Informal Economy: meaning, measurement and social significance*. Amsterdam: Netherlands Geographical Studies no. 115.
- RIAHI-BELKAOUI, A. (2004) 'Relationship between tax compliance internationally and selected determinants of tax morale', *Journal of International Accounting, Auditing and Taxation*, Vol. 13, No. 2, p. 135-43.
- RICHARDSON, G. (2006) 'Determinants of tax evasion: a cross-country investigation', *Journal of International Accounting, Auditing and Taxation*, Vol. 15, No. 2, p. 150-69.
- RICHARDSON, M. and SAWYER, A. (2001) 'A taxonomy of the tax compliance literature: further findings, problems and prospects', *Australian Tax Forum*, Vol. 16, No. 2, p. 137-320.
- ROBERTS, A. (2013) 'Peripheral accumulation in the world economy: a cross-national analysis of the informal economy', *International Journal of Comparative Sociology*, Vol. 54, No. 5-6, p. 420-44.
- RODGERS, P. and WILLIAMS, C.C. (2009) 'The informal economy in the former Soviet Union and in Central and Eastern Europe', *International Journal of Sociology*, Vol. 39, No. 1, p. 3-11.
- ROUND, J. and WILLIAMS, C.C. (2008) 'Everyday tactics and spaces of power: the role of informal economies in post-Soviet Ukraine', *Social and Cultural Geography*, Vol. 9, No. 2, p. 171-185.
- ROUND, J., WILLIAMS, C.C. and RODGERS, P. (2010a) 'Coping with the social costs of 'transition': everyday life in post-Soviet Russia and Ukraine', *European Urban and Regional Studies*, Vol. 17, No. 2, p. 183-96.
- ROUND, J., WILLIAMS, C.C. and RODGERS, P. (2010b) 'The role of domestic food production in everyday life in post-Soviet Ukraine', *Annals of the Association of American Geographers*, Vol. 100, No. 5, p. 1197-211.
- RUBIC, T. (2013) 'Afternoon moonlighting – it was a must: the dynamics and paradoxes of the Croatian socialist and post-socialist labor market', *Narodna umjetnost*, Vol. 50, No. 1, p. 121-45.
- SASUNKEVICH, O. (2014) 'Business as casual: shuttle trade on the Belarus-Lithuania border', in Morris, J. and Polese, A. (Eds.) *The Informal Post-Socialist Economy: embedded practices and livelihoods*. London: Routledge, 135-51.
- SAUKA, A. and PUTNINS, T. (2011) *Shadow Economy index for the Baltic countries 2009 and 2010*. Riga: Stockholm School of Economics in Riga.
- SCHNEIDER, F. (2013) *Size and development of the shadow economy of 31 European and 5 other OECD countries from 2003 to 2013: a further decline*. [http://www.econ.jku.at/members/Schneider/files/publications/2013/ShadEcEurope31\\_Jan2013.pdf](http://www.econ.jku.at/members/Schneider/files/publications/2013/ShadEcEurope31_Jan2013.pdf) (last accessed 6 June 2014)
- SCHNEIDER, F. and WILLIAMS, C.C. (2013) *The Shadow Economy*. London: Institute of Economic Affairs.
- SEDLNIEKS, K. (2003) 'Cash in an Envelope: Corruption and Tax Avoidance as an Economic strategy in Contemporary Riga', in Arnstberg, K-O. and Boren, T. (Eds.) *Everyday Economy in Russia, Poland and Latvia*. Stockholm: Almqvist and Wiksell, 35-51.
- SHARON, S.L. and LIU, J. (1994) 'A comparison of weighted and unweighted analyses in the National Crime Victimization Survey', *Journal of Quantitative Criminology*, Vol. 10, No. 4, p. 343-60.
- SLAVNIC, Z. (2010) 'Political economy of informalisation', *European Societies*, Vol. 12, No. 1, p. 3-23.
- SMITH, A. and STENNING, A. (2006) 'Beyond household economies: articulations and spaces of economic practice in postsocialism', *Progress in Human Geography*, Vol. 30, No. 1, p. 1-14.

- SOLON G., HAIDER, S.J. and WOOLDRIDGE, J. (2013) What are we weighting for?, Cambridge: National Bureau of Economic Research Working Paper No. 18859.
- STANCULESCU, M. (2005) 'Working conditions in the informal sector', *South East Europe Review for Labour and Social Affairs*, Vol. 10, No. 3, p. 79-93.
- SURDEJ, A. and Ślęzak, E. (2009) 'Formal and informal work in a transition economy: the case of Poland', in Pfau-Effinger, B., Flaquer, L. and Jensen, P.H. (Eds.) *Formal and Informal Work: the hidden work regime in Europe*. London: Routledge, 89-116.
- TAIWO, O. (2013) 'Employment choice and mobility in multi-sector labour markets: theoretical model and evidence from Ghana', *International Labour Review*, Vol. 152, No. 3-4, p. 469-92.
- TAYLOR, N. (2005) 'Explaining taxpayer noncompliance through reference to taxpayer identities: a social identity perspective', in C. Bajada and F. Schneider (Eds.), *Size, Causes and Consequences of the Underground Economy: an international perspective*. Aldershot: Ashgate, 39-54.
- THURMAN, Q.C., C. ST. JOHN and L. RIGGS (1984) 'Neutralisation and tax evasion: how effective would a moral appeal be in improving compliance to tax laws?', *Law and Policy*, Vol. 6, No. 3, p. 309-27.
- TYLER, T. (1997) 'The psychology of legitimacy: a relational perspective in voluntary deference to authorities', *Personality and Social Psychology Review*, Vol. 1, No. 4, p. 323-45.
- VAN GEUNS, R., MEVISSSEN, J. and RENNOY, P. (1987) 'The spatial and sectoral diversity of the informal economy', *Tijdschrift voor Economische en Sociale Geografie*, Vol. 78, No. 5, p. 389-98.
- VANDERSEYPEN, G., TCHIPEVA, T., PESCHNER, J., RENNOY, P. and WILLIAMS, C.C. (2013) 'Undeclared work: recent developments', in European Commission (ed.) *Employment and Social Developments in Europe 2013*. Brussels: European Commission, 231-74.
- VIRTANEN, S. (2013) 'Grey Economy Information Unit, Finland', available at <http://www.eurofound.europa.eu/areas/labourmarket/tackling/cases/fi015.htm> (accessed 11 May 2014).
- WALLACE, C. and HAERPFER, C. (2002) 'Patterns of participation in the informal economy in East-Central Europe', in Neef, R. and Stanulescu, M. (Eds.) *The Social Impact of Informal Economies in Eastern Europe*. Aldershot: Ashgate, 28-48.
- WALLACE, C. and LATCHEVA, R. (2006) 'Economic transformation outside the law: corruption, trust in public institutions and the informal economy in transition countries of Central and Eastern Europe', *Europe-Asia Studies*, Vol. 58, p. 81-102.
- WEBB, J.W., G.D. BRUTON, L. TIHANYI and R.D. IRELAND (2013) 'Research on entrepreneurship in the informal economy: framing a research agenda', *Journal of Business Venturing*, Vol. 28, p. 598-614.
- WEBB, J.W., R.D. IRELAND and D.J. KETCHEN (2014) 'Towards a greater understanding of entrepreneurship and strategy in the informal economy', *Strategic Entrepreneurship Journal*, Vol. 8, No. 1, p. 1-15.
- WENZEL, M. (2002) 'The impact of outcome orientation and justice concerns on tax compliance: the role of taxpayers' identity', *Journal of Applied Psychology*, Vol. 87, p. 639-45.
- WENZEL, M. (2004a) 'An analysis of norm processes in tax compliance', *Journal of Economic Psychology*, Vol. 25, No. 2, p. 213-228.
- WENZEL, M. (2004b) 'The social side of sanction: personal and social norms as moderators of deterrence', *Law and Human Behaviour*, Vol. 28, p. 547-67.

- WILLIAMS, C.C. (2001) 'Tackling the participation of the unemployed in paid informal work: a critical evaluation of the deterrence approach', *Environment and Planning C*, Vol. 19, No. 5, p. 729-49.
- WILLIAMS, C.C. (2007) 'Tackling undeclared work in Europe: lessons from a study of Ukraine', *European Journal of Industrial Relations*, Vol. 13, No. 2, p. 219-37.
- WILLIAMS, C.C. (2009) 'Formal and informal employment in Europe: beyond dualistic representations', *European Urban and Regional Studies*, Vol. 16, No. 2, p. 147-59.
- WILLIAMS, C.C. (2011) 'Reconceptualising men's and women's undeclared work: evidence from Europe', *Gender, Work and Organisation*, Vol. 18, No. 4, p. 415-37.
- WILLIAMS, C.C. (2014) *Confronting the Shadow Economy: evaluating tax compliance behaviour and policies*. Cheltenham: Edward Elgar.
- WILLIAMS, C.C. and MARTINEZ, A. (2014a) 'Explaining cross-national variations in tax morality in the European Union: an exploratory analysis', *Studies in Transition States and Societies*, Vol. 6, No. 1, p. 5-17.
- WILLIAMS, C.C. and MARTINEZ, A. (2014b) 'Is the informal economy an incubator for new enterprise creation? a gender perspective', *International Journal of Entrepreneurial Behaviour and Research*, Vol. 20, No. 1, p. 4-19.
- WILLIAMS, C.C. and ROUND, J. (2007a) 'Rethinking livelihood strategies in East-Central Europe: some lessons from Ukraine', *Journal of Contemporary European Studies*, Vol.15, No. 2, p. 201-14.
- WILLIAMS, C.C. and ROUND, J. (2007b) 'Rethinking the nature of the informal economy: some lessons from Ukraine', *International Journal of Urban and Regional Research*, Vol. 31, No. 2, p. 425-41.
- WILLIAMS, C.C. and ROUND, J. (2007c) 'Beyond negative depictions of informal employment: some lessons from Moscow', *Urban Studies*, Vol. 44, No. 12, p. 2321-38.
- WILLIAMS, C.C. and ROUND, J. (2008a) 'Rethorizing the nature of informal employment: some lessons from Ukraine', *International Sociology*, Vol. 23, No. 3, p. 367-88.
- WILLIAMS, C.C. and ROUND, J. (2008b) 'Gender variations in the nature of undeclared work: evidence from Ukraine', *Sociological Research On-Line*, Vol. 13, No. 4, <<http://www.socreseonline.org.uk/13/4/6.html>>
- WILLIAMS, C.C. and ROUND, J. (2009) 'Evaluating the gender variations in off-the-books work: some evidence from Moscow', *International Journal of Sociology*, Vol. 39, No. 2, p. 60-79.
- WILLIAMS, C.C. and ROUND, J. (2010) 'The shallow and uneven diffusion of capitalism in everyday life in post-Soviet Moscow', *Debatte: Journal of Contemporary Central and Eastern Europe*, Vol. 18, No. 1, p. 53-69.
- WILLIAMS, C.C. and WINDEBANK, J. (1998) *Informal Employment in the Advanced Economies: implications for work and welfare*. London: Routledge.
- WILLIAMS, C.C., NADIN, S., RODGERS, P., ROUND, J. AND WINDEBANK, J. (2011) 'Mapping the Social Organization of Labour in Moscow: Beyond the Formal/informal Labour Dualism', *Sociological Research Online*, Vol. 16, No. 1, <<http://www.socresonline.org.uk/16/1/13.html>>
- WILLIAMS, C.C., ROUND, J. and RODGERS, P. (2013) *The Role of Informal Economies in the Post-Soviet World: the end of transition?* London: Routledge.
- WINSHIP, C. and RADBILL, L. (1994) 'Sampling weights and regression analysis', *Sociological Methods and Research*, Vol. 23, No. 2, p. 230-57.
- WOOLFSON, C. (2007) 'Pushing the envelope: the 'informalization' of labor in post-communist new EU member states', *Work, Employment and Society*, Vol. 21, No. 4, p. 551-64.



Table 1. Participation in undeclared work in prior 12 months in Nordic countries, cross-national variations

	Sample size	% engaged in undeclared work	Earnings from undeclared work:						Don't remember / know; refusal (%)	Mean (€)	GDP in PPS (EU28=100), 2013
			€1-100 (%)	€101-200 (%)	€201-500 (%)	€501-1000 (%)	€1000+ (%)				
All EU28	27,563	3.8	20	9	17	11	12	31	414	-	
All NC	3,013	6.2	18	9	22	20	21	10	1041	-	
Denmark	1,004	9	14	11	13	31	16	15	821	124	
Sweden	1,006	7	17	5	29	13	29	7	1346	127	
Finland	1,003	3	32	21	25	13	6	3	420	113	

Table 2. Participation in undeclared work in Nordic countries: socio-demographic, socio-economic and spatial variations

		% engaged in undeclared work	Earnings from undeclared work					Don't remember / know; Refusal (%)	Mean (€)
			€1-100 (%)	€101-200 (%)	€201-500 (%)	€501-1000 (%)	€1000+ (%)		
Gender	Men	9	14	6	27	21	23	9	1073
	Women	4	27	16	10	18	17	12	962
Age	15-24	13	20	12	31	29	8	0	479
	25-44	7	16	6	17	18	35	8	1888
	45-64	5	15	12	19	13	23	18	834
	65+	2	22	7	22	22	6	21	385
Marital status	(Re) Married/ Cohabiting	6	17	11	21	22	17	12	976
	Single/ Divorced or separated/ Widowed/ Other	7	18	8	24	17	26	7	1118
Social class	Working class	9	29	5	18	13	30	5	1265
	Middle class	5	10	13	22	25	17	13	946
	Higher class	7	26	0	57	9	0	8	376
	Other/ none	1	0	0	0	0	0	100	--
Age education ended	<15	3	46	22	13	0	0	19	124
	16-19	6	9	11	21	11	34	14	1419
	20+	6	20	10	20	13	26	11	1204
	Still studying	12	17	5	26	49	3	0	497
Adults in household	One	5	28	5	21	16	18	12	681
	Two	5	9	11	20	26	23	11	1337
	Three	11	22	0	38	20	12	8	862
	Four and more	9	24	35	0	0	41	0	860
Children	<10 years old	8	12	13	15	21	36	3	1821
	10-14 years old	6	37	5	25	14	4	15	374
	<10 and 10-14	8	0	0	74	7	19	0	589
	No children	6	19	10	18	22	19	12	883
Employment	Unemployed	6	16	11	28	30	10	5	526
	Employed	6	19	8	18	12	30	13	1485
Difficulties paying bills	Most of the time	12	21	19	56	0	0	4	190
	From time to time	9	22	8	16	11	35	8	1642
	Almost never/never	6	16	9	22	23	20	10	981
Area	Rural area or village	6	10	4	38	4	28	16	1361
	Small or middle sized town	6	24	15	13	21	20	7	860
	Large town	6	14	4	23	34	17	8	1074

Table 3. Logistic regression of participation in undeclared work

Variables	Model 1	Model 2	Model 3
Gender (CG: Women):			
Men	0.926*** (0.204)	0.965*** (0.208)	0.982*** (0.208)
Age (CG: 15-24 years):			
25-44	-0.819 (0.551)	-0.758 (0.550)	-0.785 (0.545)
45-64	-0.746 (0.525)	-0.662 (0.532)	-0.681 (0.528)
65+	-1.366** (0.556)	-1.282** (0.594)	-1.302** (0.591)
Marital status: (CG: Re - Married/ Cohabiting)			
Single/ Divorced or separated/ Widowed/ Other	-0.256 (0.406)	-0.288 (0.406)	-0.320 (0.406)
Social class, self-assessment (CG: The working class of society)			
The middle class of society	-0.443** (0.220)	-0.407* (0.226)	-0.411* (0.230)
The higher class of society	-0.576 (0.539)	-0.507 (0.539)	-0.516 (0.547)
Other/none	-0.965 (1.125)	-1.103 (1.066)	-1.105 (1.069)
Tax morality	0.439*** (0.0565)	0.447*** (0.0574)	0.450*** (0.0580)
Employment (CG: Unemployed):			
Employed		0.0125 (0.295)	0.0119 (0.296)
Difficulties paying bills last year (CG: Most of the time)			
From time to time		-0.999* (0.554)	-0.967* (0.551)
Almost never/never		-1.037** (0.492)	-1.051** (0.492)
Area respondent lives (CG: Rural area or village):			
Small/middle sized town			-0.0785 (0.232)
Large town			0.0766 (0.274)
Constant	-3.495*** (0.827)	-2.556*** (0.910)	-2.504*** (0.924)
Observations	2,809	2,802	2,800
Pseudo R <sup>2</sup>	0.1111	0.1158	0.1172
Log likelihood	-467.9442	-465.1963	-464.3785
$\chi^2$	140.71	140.82	141.51
p>	0.0000	0.0000	0.0000

Notes:

Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Other independent variables included in the models, with no statistical significance: age when stopped full time education, number of persons 15+ years in household and number of children.

## APPENDIX

**Table A1. Variables used in the analysis: definitions and descriptive statistics**

Variables	Definition	Mode or mean (Standard deviation)	Min / Max
Undeclared activities (dependent variable)	Dummy variable of undeclared paid activities carry out in the last 12 months, apart from a regular employment	No undeclared activities (93.76%)	0 / 1
Gender	Dummy for the gender of the respondent	Male (50.38%)	0 / 1
Age	Respondent age in intervals	45-64 (33.92%)	1 / 4
Marital status	Dummy for the marital status of the respondent	(Re) Married/ Cohabiting (60%)	0 / 1
Social class	Respondent perception regarding social class of society to which it belongs in categories	Middle class of society (69.36%)	1 / 4
Age when stopped full time education	Respondent age when stopped full time education in categories	20+ years old (61.14%)	1 / 4
People 15+ years in own household	People 15+ years in respondent`s household (including the respondent) in categories	Two people (53.02%)	1 / 4
Children	Presence of children (up to 14 years old) in the household in categories	No children (68.07%)	1 / 4
Tax morality index	Constructed index of self-reported tolerance towards tax non-compliance	1.92 (1.09)	1 / 10
Employment	Dummy for the employment status of the respondent	Employed (55.28%)	0 / 1
Difficulties paying bills	Respondent difficulties in paying bills in categories	Almost never/never (88.22)	1 / 3
Area respondent lives	Size of the area where the respondent lives in categories	Small or middle sized town (45.68%)	1 / 3

Source: Eurobarometer 79.2 (2013): Undeclared Work in the European Union

### Socio-demographic independent variables:

- Gender: a dummy variable with value 1 for males and 0 for females.
- Age: a categorical variable for the age of the respondent with value 1 for those aged 15 to 24 years old, value 2 for those aged 25 to 44, value 3 for those aged 45 to 64, and value 4 for those over 65 years old.
- Marital Status: a dummy variable with value 1 for Single/ Divorced or separated/ Widowed/ Other marital status situation and value 0 for the (Re) Married/ Cohabiting persons.
- Social class: a categorical variable for the respondent perception regarding social class of society to which s/he belongs with value 1 for the working class of society, value 2 for middle class of society, value 3 for higher class of society, and value 4 for other or none.
- Age when stopped full time education: a categorical variable for age of the respondent when stopped full time education with value 1 for 15 years old and under, value 2 for 16-19 years old, value 3 for 20 years old or over, and value 4 for “still studying”.
- People 15+ years in own household: a categorical variable for people 15+ years in respondent`s household (including the respondent) with value 1 for one person, value 2 for two persons, value 3 for 3 persons, and value 4 for 4 persons or more.
- Children (up to 14 years old in the household): a categorical variable for number of children with value 1 for individuals with no children, value 2 for the presence of children less than 10 years old live in respondent`s household, value 3 for the presence of children aged 10 to

14 years old live in respondent`s household and value 4 for the presence of children less than 10 years old and children aged 10 to 14 years old live in respondent`s household.

- Tax morality index: Constructed index of self-reported tolerance towards tax non-compliance.

Socio-economic independent variables:

- Employment status: a dummy variable with value 1 for employed respondents and 0 for unemployed respondents.
- Difficulties paying bills: a categorical variable for whether the respondent witnessed difficulties in paying bills with value 1 for having difficulties most of the time, value 2 for occasionally, and value 3 for almost never/never.

Spatial independent variable:

- Area respondent lives: a categorical variable for the urban/rural area where the respondent lives with value 1 for rural area or village, value 2 for small or middle sized town, and value 3 for large urban area.