



This is a repository copy of *Who Participates in Undeclared Work in the European Union? Toward a Reinforced Marginalization Perspective* .

White Rose Research Online URL for this paper:  
<http://eprints.whiterose.ac.uk/106159/>

Version: Accepted Version

---

**Article:**

Williams, C.C. [orcid.org/0000-0002-3610-1933](https://orcid.org/0000-0002-3610-1933) and Horodnic, I.A. (2017) Who Participates in Undeclared Work in the European Union? Toward a Reinforced Marginalization Perspective. *International Journal of Sociology*, 47 (2). pp. 99-115. ISSN 0020-7659

<https://doi.org/10.1080/00207659.2017.1300466>

---

**Reuse**

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

**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/>

# **Who participates in undeclared work in the European Union? towards a reinforced marginalization perspective**

Colin C Williams and Ioana A Horodnic

Submitted to:

International Journal of Sociology

First submitted: August 2014

Revision submitted: October 2016

## **Biographies:**

Colin C Williams is Professor of Public Policy in the Management School at the University of Sheffield in the United Kingdom. His research interests include the informal economy, work organization and the future of work, subjects on which he has published some 20 monographs and over 400 journal articles over the past 25 years. His recent books include *Confronting the Shadow Economy* (2014, Edward Elgar), *The Shadow Economy* (2013, Institute of Economic Affairs) and *Informal Work in Developed Nations* (2010, Routledge).

Dr Ioana Alexandra Horodnic is an Assistant Professor at the Alexandru Ioan Cuza University of Iasi. Her current research interests include issues related to labor economics, shadow economy, academic performance and academic motivation.

## **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.

## **Corresponding Author:**

Colin C Williams  
Professor of Public Policy  
Management School  
University of Sheffield  
Conduit Road  
Sheffield S10 1FL  
United Kingdom  
E-mail: [C.C.Williams@sheffield.ac.uk](mailto:C.C.Williams@sheffield.ac.uk)

Dr. Ioana A Horodnic  
Faculty of Economics and Business Administration  
Alexandru Ioan University of Iasi  
Iasi  
Romania  
E-mail: [ursachi\\_ioana\\_alexandra@yahoo.com](mailto:ursachi_ioana_alexandra@yahoo.com)

## **Who participates in undeclared work in the European Union? towards a reinforced marginalization perspective**

### **Abstract**

Representations of who participates in undeclared work have adopted either a marginalization thesis which holds that undeclared work is conducted disproportionately by the unemployed or a reinforcement thesis which holds that it is conducted disproportionately by the employed. Reporting a 2013 survey of participation in undeclared work involving 27,563 face-to-face interviews conducted in 28 European Union (EU) member states, the finding is that although the unemployed are more likely to engage in undeclared work, they undertake only 20 per cent of all undeclared work and receive significantly lower earnings from the undeclared economy than those in declared jobs, meaning that their participation reinforces their marginalized position relative to the employed. Moreover, those in declared employment who benefit least from the declared labor market (e.g., younger people, those with financial difficulties) are again more likely to engage in undeclared work, but have lower financial gains from their undeclared work than those who benefit more from declared employment. The outcome is a tentative call for a new reinforced marginalization theoretical perspective which holds that although marginal groups are more likely to engage in undeclared work, they gain less from their undeclared work, meaning that the undeclared sphere reinforces the marginalization produced by the declared economy.

**Keywords:** informal economy; shadow economy; unemployment; marginalization; labor market; European Union

### **Introduction**

In recent years, a burgeoning sociological literature has emerged both in this journal and beyond reporting surveys of how many people are using the undeclared economy as a coping practice to secure a livelihood (Abbott and Wallace 2009; Aponte 1997; Boels 2014; Bruns et al. 2011; Karjanen 2011; Likic-Brboric et al. 2013; McCann 2000; Morris 2011; Rodgers and Williams 2009; Round and Rodgers 2009; Williams 2009; Williams and Round 2009). One of the most heated current debates in this literature is over who is using the undeclared economy as a coping practice. On the one hand, the dominant marginalization thesis asserts that the unemployed disproportionately engage in undeclared work and thus that the undeclared economy offsets the disparities produced by the declared economy (Ahmad 2008; Castree et al. 2004; Katungi et al. 2006; Rubić 2013, Sasunkevich 2014, Surdej and Ślęzak 2009). On the other hand, however, a reinforcement thesis has emerged which argues the inverse, namely that that undeclared work is disproportionately used by those who have declared jobs rather than the unemployed, meaning that the undeclared economy reinforces, rather than reduces, the disparities produced by the declared economy (Balabanova and McKee 2002, Kaitedliou et al. 2013, MacDonald 1994, Moldovan and Van de Walle 2013, Pahl 1984; Pfau-Effinger and Sakac Magdalenic 2010; Williams and Windebank 2001). Until now, nevertheless, the only evidence available to test the validity of these competing perspectives has been small-scale studies conducted in particular populations. No extensive cross-national surveys have been available to evaluate who participates in undeclared work and thus which, if any, of these theses is valid. Here therefore, the intention is to fill that gap.

In the first section therefore, the competing perspectives regarding who engages in undeclared work are reviewed, namely the dominant ‘marginalization thesis’, which holds that the unemployed disproportionately conduct such work, and the emergent ‘reinforcement thesis’ which argues that such work is disproportionately by those in declared jobs. Identifying that the

only evidence so far available derives from small-scale studies of particular populations, the second section then begins to fill this gap by introducing the methodology used in an extensive 2013 Eurobarometer survey of undeclared work. The third section reports the results on the share of undeclared work undertaken by the unemployed and those in declared jobs as well as the characteristics of the employed who engage in undeclared work, whilst the fourth and final section concludes by discussing the theoretical implications of the findings. This will reveal the need for a more refined understanding of who participates in undeclared work which transcends both the marginalization and reinforcement theses.

At the outset however, undeclared work needs to be defined. Reflecting the consensus in the scholarly and policy literature, this paper defines undeclared work as paid activities not declared to the authorities for tax, social security and/or labor law purposes (Dekker et al. 2010; European Commission 2007; OECD 2012; Schneider 2008; Schneider and Williams 2013; Williams 2004, 2006; Williams and Windebank 1998). If the paid activities being considered differ in additional ways to declared work, then such activities are not defined as undeclared work. For example, if the goods and/or services being exchanged are illegal (e.g., illegal drugs), then such paid activities are here treated as part of the wider ‘criminal’ economy rather than part of the undeclared economy, and if the activities are unpaid then they are part of the separate unpaid economy (White and Williams 2010). There are nevertheless some blurred boundaries, such as when the rewards for work are in the form of gifts or an in-kind reciprocal favor, rather than money. In this paper, however, such activities involving gifts or in-kind favors are excluded from the definition of undeclared work. Only paid activities not declared to the authorities for tax, social security and/or labor law purposes are included. Even more challenging is the discussion regarding the methodology which should be used to measure undeclared work. There are three main methods of assessment of the size of undeclared work, namely: direct methods at a micro level (i.e. individual, household, company) that aim to determine the size of the undeclared sector at one particular point in time (i.e., surveys); indirect methods that use various macroeconomic indicators as proxies for the development of undeclared work over time, and statistical methods that estimate undeclared work as a ‘latent’ variable (for more details about these methods please see Schneider and Williams 2013). Here, we use the survey method to evaluate who participates in undeclared work. This is because the other methods are used only to measure its size, but cannot evaluate who engages in such work.

### **Competing perspectives on who participates in the undeclared economy**

Reviewing the literature, there have been two contrasting perspectives on who participates in undeclared work, namely the marginalization and reinforcement theses. Here, each is reviewed in turn.

#### **Marginalization thesis**

The dominant ‘marginalization thesis’ holds that undeclared work is disproportionately conducted by the unemployed who undertake such work out of economic necessity and as a last resort due to their exclusion from the declared labor market (Ahmad 2008; Castree et al. 2004; Gutmann 1978; Henry 1982; Katungi et al. 2006; Parker 1982; Rosanvallon 1980, Rubić 2013, Sasunkevich 2014, Surdej and Ślęzak 2009). This has been a long-standing assertion. During the early 1980s recession, Parker (1982: 33) asserted that ‘with high unemployment more and more people are getting caught up in the web of the underground economy’, whilst Robson (1988: 55) claimed that ‘the informal economy is more feasible as an alternative prop to those who are out of work...’. Indeed, so dominant was this marginalization thesis during the 1970s and 1980s that Pahl (1988: 249) argued that it was ‘in danger of becoming a social scientists’ folk myth’.

Despite such warnings and the lack of empirical evidence, this perspective has been persistently propounded. As Blair and Endres (1994: 288) argued during the 1990s, ‘The role of the informal sector in providing a source of support for unemployed workers or individuals receiving public assistance is an important function of the unobserved sector’. Or as Stauffer (1995: 1) put it, ‘the informal sector can act as an important buffer against unemployment’. Indeed, this view that undeclared work is largely conducted by the unemployed has continued to be voiced since the turn of the millennium (e.g., Ahmad 2008; Brill 2011; Castree et al. 2004; Davis 2006; Katungi et al. 2006; Slavnic 2010; Stănculescu 2004; Taiwo 2013). The result is that undeclared work in this perspective is seen to provide the unemployed with a hidden means of livelihood and in doing so, to offset the disparities produced by the declared economy.

This widespread belief that undeclared work is disproportionately conducted by the unemployed, however, is more an a priori assumption than an evidence-based finding. Indeed, the only evidence supporting such an assertion derives from small-scale studies of particular populations such as studies based on small samples conducted in Belfast (Leonard 1994), Brussels (Kesteloot and Meert 1999) and Romania (Stănculescu 2004). For example, Stănculescu (2004) finds that 27 percent of the Romanian households surveyed earn undeclared incomes, but 61 percent of the households in which all members are non-employed. Until now, no extensive cross-national surveys have been conducted of the proportion of undeclared work conducted by the unemployed and whether it is widely valid that undeclared work is disproportionately undertaken by the unemployed. Similarly, women are claimed to be more likely to participate in undeclared work than men (ILO 2013; Leonard 1994), those less educated more likely than those with better education (Brill 2011; Slavnic 2010; Taiwo 2013), those with financial difficulties more likely than more affluent population groups (Katungi et al. 2006; Williams 2004) and that participation in undeclared work is greater in less affluent areas (Schneider and Williams 2013; Williams et al. 2013; Williams and Windebank, 2001). For example, undeclared work is more widespread in less affluent areas of Europe, with some quarter of the national income in the post-communist economies of Central and Eastern Europe not declared to the authorities and an equivalent proportion of employment in the undeclared economy (Schneider and Williams, 2013).

### **Reinforcement thesis**

Over the past few decades, a reinforcement thesis has emerged which argues the inverse, namely that undeclared work is disproportionately undertaken by those in declared jobs and thus that the undeclared economy reinforces, rather than reduces, the inequalities produced by the declared economy (Blalabanova and McKee 2002, Kaitedliou et al. 2013, MacDonald 1994, Moldovan and Van de Walle 2013). Again, the evidence supporting this thesis has so far been only in the form of small-scale studies based on small samples undertaken in France (Foudi et al. 1982), Germany (Pfau-Effinger and Sakac Magdalenic 2010), Greece (Hadjimichalis and Vaiou 1989), Italy (Mingione 1991), Lithuania (Krumplyte and Samulevicius 2010), the Netherlands (Van Geuns et al. 1987), Poland (Surdej and Slezak 2009), Portugal (Lobo 1990b), Romania (Jutting et al. 2009), Spain (Lobo 1990a), the UK (Pahl 1984; Williams 2001, 2004, 2006; Williams and Windebank 2001) and Sweden (Persson and Malmer 2006).

For example, a Swedish survey reveals that whilst 13 percent of the surveyed population engages in undeclared work, 9 percent of the registered unemployed do so (Persson and Malmer 2006). Pedersen (2003) meanwhile, identifies that the unemployed constitute only a small proportion of the undeclared workforce: 20.7 percent in Germany, 9.9 percent in Denmark and 9.2 percent in the UK. In East-Central Europe similarly, Wallace and Haerper (2002) identify that just 5 percent of undeclared workers in East-Central Europe are unemployed people

receiving benefits, and Surdej and Slezak (2009) in Poland that the unemployed represent just 16 percent of undeclared workers.

Similarly, it has also been asserted that women are less likely to participate in undeclared work than men (Lemieux et al. 1994; McInnis-Dittrich 1995) and those with financial difficulties less likely to participate than more affluent population groups (Williams 2004; Williams et al. 2013).

Given these two apparently mutually exclusive viewpoints on who engages in undeclared work, and that the only evidence in support of either view comes from small-scale studies of particular populations, attention now turns to bridging this gap. Here, we report a contemporary extensive survey of who engages in undeclared work conducted across all 28 member states of the European Union in order to evaluate the dominant view that marginalized groups are more likely to participate in undeclared work, by testing the following propositions that analyse on the one hand, whether the unemployed or employed participate more in undeclared work and on the other hand, whether it is also marginalized groups of the employed that are more likely to participate in undeclared work:

#### Marginalization hypothesis

H1 The unemployed are more likely to participate in undeclared work than the employed.

#### Socio-demographic hypotheses

H2a: Employed women are more likely to participate in undeclared work than employed men.

H2b: Employed younger age groups are more likely to participate in undeclared work than employed older age groups.

H2c: Employed unmarried groups are more likely to participate in undeclared work than employed married individuals.

H2d: Those employed groups who self-define themselves as working class are more likely to participate in undeclared work than those defining themselves as middle or higher class.

H2e: Those employed groups with fewer years in formal education are more likely to participate in undeclared work than those who spent longer in formal education.

H2f: Those employed who live in a single person household are more likely to participate in undeclared work than those living in households with more than one occupant.

H2g: Those employed with children are more likely to participate in undeclared work than those with no children.

H2h: Those employed with low tax morale are more likely to participate in undeclared work than those with high tax morale.

#### Socio-economic marginalization hypotheses

H3a: Manual workers are more likely to participate in undeclared work than other groups of employed people.

H3b: Those employed with financial difficulties are more likely to participate in undeclared work than those without financial difficulties.

#### Spatial hypotheses

H4a: Employed people living in rural areas are more likely to participate in undeclared work than the employed living in urban areas.

H4b: Those employed living in less affluent European regions are more likely to participate in undeclared work than those living in more affluent EU regions.

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

For this analysis we use Special Eurobarometer No. 284 entitled Undeclared Work in the European Union, conducted as part of wave 79.2 of the Eurobarometer survey. In April and May 2013, 27,563 face-to-face interviews were conducted in all 28 member states of the European Union member, of which 12,994 were conducted with people in declared jobs. These 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 methodology ensures that on the variables of gender, age, region and locality size, each country as well as for each level of sample (i.e., each European country), is representative in terms of the proportion of interviews conducted with each group. For the univariate analysis therefore, we employed the sampling weighting scheme as the literature suggests (Sharon and Liu 1994; Solon et al. 2013; Winship and Radbill 1994). For the multivariate analysis however, there is a debate over whether such a weighting scheme should be used (Pfeffermann 1993; Sharon and Liu 1994; Solon et al. 2013; Winship and Radbill 1994). Reflecting the majoritarian view, the decision has been taken here not to do so.

The face-to-face interview schedule adopted a gradual approach to the more sensitive questions. This firstly asked questions about the respondents' attitudes towards undeclared work and having established some rapport, the second section then asked questions regarding their purchase of goods and services on an undeclared basis in the last 12 months along with their reasons for doing so and thirdly, questions regarding their supply of undeclared work including the type of work conducted, hours spent, the average remuneration per hour, who they did the work for and their reasons for doing so. Socio-demographic data was collected on their current occupational status, gross formal income, age, gender, education, hours worked in formal employment and so forth. Analyzing the responses of interviewers regarding the perceived reliability of the interviews, the finding is that cooperation was deemed bad in less than 1 per cent of the interviews. Cooperation was deemed excellent in 67 per cent, fair in 27 per cent and average in 5 per cent.

To analyze the findings, descriptive statistics are produced on the participation of the employed and non-employed in the undeclared economy whilst multilevel mixed-effects logistic regression analysis is used to analyze the characteristics of those in declared employment who participate in the undeclared economy. To do this, the hypothesis is that participation in undeclared work varies according to socio-demographic, socio-economic variables and spatial characteristics. The dependent variable thus 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 socio-demographic, socio-economic variables and spatial variables used to analyze who participates in undeclared work are derived from previous studies (Williams and Horodnic 2015a,b, 2016a,b; Williams et al. 2015) and are as follows:

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 34, value 3 for those aged 35 to 44, value 4 for those aged 45 to 54, value 5 for those aged 55 to 64, and value 6 for those over 65 years old.

- Marital Status: a categorical variable for the marital status of the respondent with value 1 for married/ remarried individuals, value 2 for cohabiters, value 3 for singles, value 4 for those separated or divorced, and value 5 for widowed and for other form of marital status.
- 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:

- Occupation: a categorical variable grouping employed respondents by their occupation with value 1 for those self-employed, value 2 for managers, value 3 for other white collars, and value 4 for manual workers.
- 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.
- Region: a categorical variable for the region where the respondent lives with value 1 for the Western Europe region, value 2 for the Southern Europe region, value 3 for the East-Central Europe region, and value 4 for the Nordic nations region.

### **Findings: who participates in the undeclared economy?**

The marginalization thesis asserts that undeclared work is disproportionately conducted by the unemployed whilst the reinforcement thesis argues that it is disproportionately undertaken by those in declared jobs. Table 1 evaluates the participation of the employed and unemployed in the undeclared economy in the European Union. This reveals that whilst 4 percent of participants report engaging in undeclared work in the 12 months prior to interview, 9 percent of those defining their employment status as unemployed reported doing so. At first glance therefore, the marginalization thesis appears validated.

INSERT TABLE 1 ABOUT HERE



Nevertheless, although the unemployed have higher participation rates than the employed in undeclared work in the EU-28, they only conduct a small proportion (20 percent) of all undeclared work and earn on average 80 percent less than the employed from their undeclared work, meaning that the unemployed earn just 18 per cent of all undeclared income in the EU-28.

Those in declared employment, meanwhile, although 49 percent of the surveyed population, conduct 50 percent of all undeclared work and receive 51 percent of total income from undeclared work. As such, although an unemployed person is more likely to engage in undeclared work than an employed person (9 per cent of the unemployed compared with 4 per cent of the employed conduct undeclared work), only 20 per cent of all undeclared work is conducted by unemployed people. This, therefore, refutes the marginalization thesis. However, neither is undeclared work disproportionately conducted by the employed as argued by the reinforcement thesis. Instead, the employed engage in a level of undeclared work proportionate to their overall population size.

The result is that there is a need to transcend both the marginalization and reinforcement theses. Here, what we refer to as a 'reinforced marginalization' perspective is advocated. Reflecting the results, this holds that although the unemployed disproportionately engage in undeclared work, their participation reinforces their marginalized position relative to the employed, since they receive significantly lower earnings from their undeclared work than those in declared jobs who work in the undeclared economy, meaning that undeclared work reinforces, rather than reduces, the marginalized position of the unemployed.

Who amongst the employed however, engages in undeclared work? Do all groups of the employed equally participate in undeclared work and benefit to the same extent from their work in the undeclared economy? Or is it the case that those groups of employed who benefit least from declared employment (e.g., women, the working class, manual workers, younger age groups, populations living in poorer areas) also benefit least from undeclared work? To answer these questions, we here analyze the hypothesis that the participation of the employed in undeclared work varies according to socio-demographic variables, socio-economic variables and spatial characteristics.

Table 2 reports the descriptive statistics on the socio-demographic, socio-economic and spatial characteristics of the employed who engage in undeclared work. This reveals that some groups of the employed who benefit less from their employment in the declared economy are more likely to engage in undeclared work but earn on average less when they do so. Younger people in declared jobs for example are more likely than older people in declared jobs to participate in the undeclared economy but earn less when they do so, as do manual workers, those who spent fewer years in formal education, those who define themselves as working class and declared employees who have difficulties paying the household bills most of the time compared with those who do not. As such, it appears that some groups of the employed who benefit less from declared employment are more likely than those who benefit more from employment in the declared economy to engage in undeclared work. This, however, is not universally the case. Women who are in declared jobs, for example, are less likely to engage in undeclared work than men in declared employment, although they earn more when they do engage in the undeclared economy. Furthermore, the most affluent European region, namely the Nordic nations, has the highest participation rate in undeclared work (6 per cent). The participation rate in undeclared work in East-Central Europe is 5 per cent, 4 per cent in Western Europe and 3 per cent in Southern Europe. This therefore, provides tentative support for the reinforcement thesis rather than the marginalization thesis when considering the European regional variations in participation in such work. This is further reinforced when average earnings are examined. Employed people living in Nordic nations earn from undeclared work on average €1485 compared with €457 in East-Central Europe. On the whole, nevertheless, it appears from these descriptive statistics that those in declared employment who benefit less from the declared

economy (e.g., the working class, manual workers, younger age groups, populations living in poorer areas) are more likely to participate in undeclared work and to earn less when they do so. The tentative intimation, therefore, is that undeclared work it is the groups of employed people who benefit less from the declared economy who are more likely to also undertake undeclared work and to earn less when they do so.

INSERT TABLE 2 ABOUT HERE

To further analyze this, we here conduct a multilevel mixed-effects logistic regression analysis to understand whether these various socio-demographic, socio-economic and spatial characteristics continue to significantly influence the likelihood of the participation of the employed in undeclared work when the other variables are held constant. To do this, an additive model is used. The first stage model (M1) examines various socio-demographic factors to examine whether each has any association with the participation of the employed in undeclared work, while the second stage model (M2) adds a range of occupational factors alongside the socio-demographic factors, and the third stage model (M3) adds spatial factors to the socio-demographic and occupational factors to examine whether they are associated with the participation of the employed in the undeclared economy. Table 3 reports the results.

INSERT TABLE 3 ABOUT HERE

Model 1 in Table 3 shows that younger people who have declared jobs are significantly more likely to engage in undeclared work than older people in declared jobs (confirming H2b), as are single people compared with married/remarried people (confirming H2c), the working class compared with the middle and higher class (confirming H2d), those living in single-person households (confirming H2f) and those who hold non-conformist attitudes towards tax compliance compared with those who adhere to the rules, regulations and laws (confirming H2h). This is important because it reveals that those employed who are marginalized 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 level of participation in the informal economy. However, women in declared jobs are found to be less likely to participate in undeclared work than men in declared jobs (refuting H2a). However, no evidence is found that the age those in employment stopped their full time education has an association with participation in undeclared work (refuting H2e), nor the number of children (refuting H2g).

When Model 2 adds the socio-economic factors of occupation and financial circumstances people face to the socio-demographic variables, there are no major changes to the association of the socio-demographic variables with the likelihood of participation in undeclared work. However, the additional finding is that occupation is significantly associated with the likelihood to undertaken undeclared work. Self-employed people are significantly more likely to engage in undeclared work compared with all categories of employee (refuting H3a). So too does the difficulty of paying household bills have a significant influence. Those in declared jobs who most of the time have difficulties paying the household bills are more likely to participate in undeclared work than those in employment who seldom have such difficulties (confirming H3b). 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.

When spatial factors are added in Model 3, the finding is that there are no major changes to the significance of the socio-demographic and socio-economic characteristics discussed above in relation to the participation of those in declared employment in undeclared work and the

directions of the associations remain the same. However, although there is no evidence to support the view that those in employment living in more marginal rural areas are more likely to engage in undeclared work than those living in more urban areas (refuting H4a), those in employment living in the more affluent EU region of the Nordic nations are found to be more likely to participate in undeclared work than those living in Western Europe, and those living in Southern Europe are less likely (refuting H4b).

Introducing the spatial variables in Model 3 (including the contextual variable EU region) reduce the intra-class correlation compared with when only socio-demographic and socio-economic variables are included (Model 1 and Model 2). The intra-class correlation has lowered to 0.076 from the initial 0.122 of the previous model (Model 2). This indicates that 7.6 per cent of the variation in the likelihood of participating in undeclared work is due to country level differences across the EU countries.

## **Discussion and conclusions**

To evaluate who engages in undeclared work in Europe and thus the validity of the marginalization and reinforcement theses, this paper has reported the results of the first extensive contemporary survey of who participates in the undeclared economy, namely the 2013 Eurobarometer survey which involves 27,563 face-to-face interviews in the 28 member states of the European Union. This has revealed that in the EU-28 as a whole, that the unemployed disproportionately engage in undeclared work but their participation reinforces their marginalized position relative to the employed, since they receive significantly lower earnings from their undeclared work than those in declared jobs who work in the undeclared economy. The result is that undeclared work reinforces, rather than reduces, the marginalized position of the unemployed in Europe. Moreover, many of those in declared employment who benefit less from the declared economy (e.g., the working class, manual workers, younger age groups, populations living in poorer areas) are more likely to participate in undeclared work and to earn less when they do so. This finding regarding the employed who engage in undeclared work further consolidates the notion that undeclared work reinforces, rather than reduces, the disparities produced by the declared economy.

Examining the theoretical implications of these findings, the result is that a tentative call is made for a rejection of both the marginalization and reinforcement theses and instead, for the adoption of a new ‘reinforced marginalization’ thesis regarding who engages in undeclared work. This holds that although marginal groups are more likely to engage in undeclared work, they gain less from their undeclared work, meaning that the undeclared sphere reinforces the marginalization produced by the declared economy. In the EU-28, this has been found to apply to not only the unemployed but also various groups of the employed such as younger people, those with financial difficulties in paying the household bills, the working class and those living in poorer EU regions. Whether similar findings prevail when examining other global regions, especially developing countries, and also at other spatial scales such as within particular nations, regions and localities, now needs to be evaluated. This will then allow the development of a more nuanced and context-bound understanding of not only whether the ‘reinforced marginalization’ thesis applies more widely and deeply across the global economic landscape but also the development of a more nuanced understanding of the marginalized groups to which this applies in different contexts.

In sum, this paper has for the first time provided an evaluation using extensive data of who participates in the undeclared economy and thus enabled the marginalization and reinforcement theses to be evaluated critically. This tentatively displays the need for a new theorization of who participates in the undeclared economy which transcends the marginalization and reinforcement theses. This new ‘reinforced marginalization’ thesis asserts that although

marginal groups are more likely to engage in undeclared work, they gain less from their undeclared work, meaning that the undeclared sphere reinforces the marginalization produced by the declared economy. If this paper now stimulates further research to both evaluate the validity of this new thesis elsewhere as well as develop a more nuanced understanding of which marginal groups are most likely to participate in undeclared work, it will have fulfilled its objective.

## References

- Abbott, Pamela and Claire Wallace. 2009. "Patterns of participation in the formal and informal economies in the Commonwealth of Independent States." *International Journal of Sociology* 39(2): 12-38.
- Ahmad, Ali Nobil. 2008. "Dead men working: time and space in London's ('illegal') migrant economy." *Work, Employment and Society*, 22(2): 301-18.
- Aponte, Robert. 1997. "Informal work in the US: case studies and a working typology." *International Journal of Sociology and Social Policy* 17(3-4): 18-36.
- Blair, John P. and Carole R. Endres. 1994. "Hidden economic development assets." *Economic Development Quarterly* 8(3): 286-91.
- Balabanova, Dina and Michael McKee. 2002. "Understanding informal payments for health care: the example of Bulgaria." *Health Policy* 62(3): 243-73.
- Boels, Dominique. 2014. "It's better than stealing: informal street selling in Brussels." *International Journal of Sociology and Social Policy*, 34(9-10):
- Brill, Lucy. 2011. *Women's participation in the informal economy: what can we learn from Oxfam's work?* Manchester: Oxfam.
- Bruns, Bettina, Judith Miggelbrink and Kristine Muller. 2011. "Smuggling and small-scale trade as part of informal economic practices: empirical findings from the Eastern external EU border." *International Journal of Sociology and Social Policy* 30(11-12): 664-80.
- Castree, Noel, Neil Coe, Kevin Ward and Michael Samers. 2004. *Spaces of Work: global capitalism and the geographies of labour*. London: Sage.
- Davis, Mike. 2006, *Planet of Slums*. London: Verso.
- Dekker, Helga, Elske Oranje, Piet Renooy, Franciene Rosing and Colin C. Williams. 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.
- Foudi, Robert, Frank Stankiewicz and Nina Vaneclou. 1982. *Chomeurs et Economie Informelle*, Cahiers de l'observation du changement social et culturel no.17, Paris.
- Gutmann, Paul M. 1978. "Are the unemployed, unemployed?" *Financial Analysts Journal* 34(1): 26-9.
- Hadjimichalis, Christine and Diane Vaiou. 1989. "Whose flexibility?: the politics of informalisation in Southern Europe", Paper presented to the IAAD/SCG Study Groups of the IBG Conference on Industrial Restructuring and Social Change: the dawning of a new era of flexible accumulation?, Durham.
- Henry, Stuart. 1978. *The Hidden Economy*. London: Martin Robertson.
- ILO. 2013. *Women and Men in the Informal Economy: statistical picture*, available at [http://laborsta.ilo.org/informal\\_economy\\_E.html](http://laborsta.ilo.org/informal_economy_E.html) (last accessed 18 June 2014)
- Jutting, Johannes, Juan Parlevliet and Theodora Xenogiani. 2008. "Informal employment re-loaded." *IDS Bulletin* 39(2): 28-36.
- Kaitedlidou, Daphne, Christina S. Tsirona, Petros A. Galanis, Olga Siskou, Phillipa Mladovsky, Eugene G. Kouli, Panagiotis E. Prezerakos, Mamas Theodorou, M., Panagiota Sourtzi,

- and Lykourgos Liaropolous. 201. "Informal payments for maternity health services in public hospitals in Greece." *Health Policy* 109(1): 23-40.
- Karjanen, David. 2011. "Tracing informal and illicit flows after socialism: a micro-commodity supply chain analysis in the Slovak Republic." *International Journal of Sociology and Social Policy* 31(11-12): 648-63.
- Katungi, Daniel, Ellie Neale and Aaron Barbour. 2006. *People in low-paid informal work*. York: Joseph Rowntree Foundation.
- Kesteloot, Christian and Hank Meert. 1999. "Informal spaces: the geography of informal economic activities in Brussels." *International Journal of Urban and Regional Research* 23(2): 232-51.
- Krumplyte, Jolita and Jurgis Samulevicius. 2010. "Complex research on undeclared work: theoretical aspects and empirical application in Lithuania." *Inzinerine Ekonomika-Engineering Economics* 21(3): 283-94.
- Lemieux, Thomas, Fortin, Bernard and Pierre Frechette. 1994. "The effect of taxes on labour supply in the underground economy." *American Economic Review* 84 (1): 231-54.
- Leonard, Madeleine. 1994. *Informal Economic Activity in Belfast*. Aldershot: Avebury.
- Likic-Brboric, Branka, Slavnic Zoran and Charles Woolfson. 2013. "Labour migration and informalisation: East meets West." *International Journal of Sociology and Social Policy* 33(11-12): 677-92.
- Lobo, Frederico. 1990a. "Irregular work in Spain." in *Underground Economy and Irregular Forms of Employment, Final Synthesis Report*. Brussels: Office for Official Publications of the European Communities.
- Lobo, Frederico. 1990b. "Irregular work in Portugal." in *Underground Economy and Irregular Forms of Employment, Final Synthesis Report*, Office for Official Publications of the European Communities, Brussels.
- MacDonald, Rob. 1994. "Fiddly jobs, undeclared working and the something for nothing society." *Work, Employment and Society* 8(4): 507-30.
- McCann, Leo. 2000. "The informal economy and the informal state in Tatartsan, Russia." *International Journal of Sociology and Social Policy* 20(9-10): 5-36.
- McInnis-Dittrich, Kathleen. 1995. "Women of the shadows: Appalachian women's participation in the informal economy." *Affilia: Journal of Women and Social Work*, 10(4):398-412.
- Mingione, Enzo. 1991. *Fragmented Societies: a sociology of economic life beyond the market paradigm*. Oxford: Basil Blackwell.
- Moldovan, Andreda and Steven Van De Walle. 2013. "Gifts or bribes: attitudes on informal payments in Romanian healthcare." *Public Integrity* 15(4): 383-95.
- Morris, Jeremy. 2011. "Socially embedded workers at the nexus of diverse work in Russia: an ethnography of blue-collar informalisation." *International Journal of Sociology and Social Policy* 31(11-12): 619-31.
- OECD. 2012. *Reducing opportunities for tax non-compliance in the underground economy*. Paris: OECD.
- Pahl, Ray E. 1984. *Divisions of Labour*. Oxford: Blackwell.
- Pahl, Ray E. 1988. "Some remarks on informal work, social polarization and the social structure." *International Journal of Urban and Regional Research* 12(2): 247-67.
- Parker, Harriet. 1982. "Social security foments the black economy." *Economic Affairs* 3(1): 32-5.
- Pedersen, Soren. 2003. *The Shadow Economy in Germany, Great Britain and Scandinavia: a measurement based on questionnaire surveys*. Copenhagen: The Rockwool Foundation Research Unit.
- Persson, Anneke and Henrik Malmer. 2006. *Purchasing and performing undeclared work in Sweden: part 1: results from various studies*. Stockholm: Skatteverket.

- Pfau-Effinger, Birgit and Sladana Sakač Magdalenić. 2009. "Formal and informal work in the work-welfare arrangement of Germany." In Birgit Pfau-Effinger, Louis Flaquer and Pers H. Jensen (Eds.) *Formal and Informal Work: the hidden work regime in Europe*. London: Routledge, 89-116.
- Pfeffermann, Danny. 1993. "The role of sampling weights when modelling survey data." *International Statistical Review* 61(2): 317-37.
- Robson, Bryan. 1988. *Those Inner Cities: reconciling the social and economic aims of urban policy*. Oxford: Clarendon.
- Rodgers, Peter and Colin C. Williams. 2009. "The informal economy in the former Soviet Union and in central and Eastern Europe." *International Journal of Sociology* 39(2): 3-11.
- Rosavallon, Pierre. 1980. "Le développement de l'économie souterraine et l'avenir des sociétés industrielles." *Le Debat* 2: 8-23.
- Round, John and Peter Rodgers. 2009. "The problems of corruption in post-Soviet Ukraine's higher education sector." *International Journal of Sociology* 39(2): 80-95.
- Rubić, Tihana. 2013. "Afternoon moonlighting – it was a must: the dynamics and paradoxes of the Croatian socialist and post-socialist labor market." *Narodna umjetnost* 50(1): 121-45.
- Sasunkevich, Olga. 2014. "Business as casual: shuttle trade on the Belarus-Lithuania border." In: Jeremy Morris and Abel Polese (Eds.) *The Informal Post-Socialist Economy: embedded practices and livelihoods*. London: Routledge, 135-51.
- Schneider, Friedrich. 2008. (Ed.) *The Hidden Economy*. Cheltenham: Edward Elgar.
- Schneider, Friedrich and Colin C. Williams. 2013. *The Shadow Economy*. London: Institute of Economic Affairs.
- Sharon, Sharon and Joanna Liu. 1994. "A comparison of weighted and unweighted analyses in the National Crime Victimization Survey." *Journal of Quantitative Criminology* 10(4): 343-60.
- Slavnic, Zoran. 2010. "Political economy of informalisation." *European Societies* 12(1): 3-23.
- Snijders, Tom A. and Roel J. Bosker. 2012. *Multilevel Analysis: an introduction to basic and advanced multilevel modelling*. London: Sage.
- Solon Gary, Steven J. Haider and Jeffrey Wooldridge. 2013. *What are we weighting for?* Bucharest: National Bureau of Economic Research Working Paper No. 8.
- Stănculescu, Manuela. 2005. "Working conditions in the informal sector." *South East Europe Review for Labour and Social Affairs* 10(3): 79-93.
- Stauffer, Bernadette. 1995. "Regulation and reality: street vending in Washington DC", Paper presented at the 91st Annual Meeting of the Association of American Geographers, Chicago.
- Surdej, Alexander and Ewe Ślęzak. 2009. "Formal and informal work in a transition economy: the case of Poland." In: Birgit Pfau-Effinger, Louis Flaquer and Pers H. Jensen (Eds.) *Formal and Informal Work: the hidden work regime in Europe*. London: Routledge, 89-116.
- Taiwo, Olumide. 2013. "Employment choice and mobility in multi-sector labour markets: theoretical model and evidence from Ghana." *International Labour Review* 152(3-4): 469-92.
- Van Geuns, Roland, Jens Mevissen and Piet Renooy. 1987. "The spatial and sectoral diversity of the informal economy." *Tijdschrift voor Economische en Sociale Geografie* 78(5): 389-98.
- Wallace, Claire and Christian Haerpfer. 2002. "Patterns of participation in the informal economy in East-Central Europe," In: Rainer Neef and Manuela Stanulescu (Eds.) *The Social Impact of Informal Economies in Eastern Europe*. Aldershot: Ashgate, 28-48.
- White, Richard and Colin C Williams. 2010. "Re-thinking monetary exchange: some lessons from England." *Review of Social Economy* 68(3): 317-38.

- Williams, Colin C. 2001. "Tackling the participation of the unemployed in paid informal work: a critical evaluation of the deterrence approach." *Environment and Planning C* 19(5): 729-49.
- Williams, Colin C. 2004. *Cash-in-Hand Work: the underground sector and the hidden economy of favours*. Basingstoke: Palgrave Macmillan.
- Williams, Colin C. 2006. *The Hidden Enterprise Culture: entrepreneurship in the underground economy*. Cheltenham: Edward Elgar.
- Williams, Colin C. 2009. "From the formal/informal work dichotomy to hybrid semiformal work practices." *International Journal of Sociology* 39(2): 39-59.
- Williams, Colin C. and Alvaro Martinez. 2014a. "Explaining cross-national variations in tax morality in the European Union: an exploratory analysis." *Studies in Transition States and Societies* 6(1): 5-17.
- Williams, Colin C. and Alvaro Martinez. 2014b. "Is the informal economy an incubator for new enterprise creation? a gender perspective." *International Journal of Entrepreneurial Behaviour and Research* 20(1): 4-19.
- Williams, Colin C. and Ioana A. Horodnic. 2015a. "Evaluating the prevalence of the undeclared economy in Central and Eastern Europe: An institutional asymmetry perspective." *European Journal of Industrial Relations* 21(4): 389-406.
- Williams, Colin C. and Ioana A. Horodnic. 2015b. "Tackling the informal economy in South East Europe: an institutional approach." *Journal of South East European and Black Sea Studies* 15(4): 519-39.
- Williams Colin C. and Ioana A. Horodnic. 2016a. "Evaluating the illegal employer practice of under-reporting employees' salaries." *British Journal of Industrial Relations*, DOI: 10.1111/bjir.12179.
- Williams, Colin C. and Ioana A. Horodnic. 2016b. "An institutional theory of the informal economy: some lessons from the United Kingdom." *International Journal of Social Economics* 43(7): 722-38.
- Williams, Colin C. and John Round. 2009. "Evaluating the gender variations in off-the-books work." *International Journal of Sociology* 39(2): 60-79.
- Williams, Colin C. and Jan Windebank. 1998. *Informal Employment in the Advanced Economies: implications for work and welfare*. London: Routledge.
- Williams, Colin C. and Jan Windebank. 2001. "Reconceptualising paid informal exchange: some lessons from English cities." *Environment and Planning A* 33(1): 121-40.
- Williams, Colin C., Horodnic, Ioana A. and Jan Windebank. 2015. "Explaining participation in the informal economy: an institutional incongruence perspective." *International Sociology* 30(3): 294-313.
- Williams, Colin C., Round, John and Peter Rodgers. 2013. *The Role of Informal Economies in the Post-Soviet World: the end of transition?* London: Routledge.
- Winship, Christopher and Louise Radbill. 1994. "Sampling weights and regression analysis," *Sociological Methods and Research* 23(2): 230-57.

Table 1 Participation in undeclared work of employed, unemployed and non-employed in the EU-28, 2013

	% engaging in undeclared work	% of all undeclared work conducted by:	% of surveyed population	Mean annual undeclared income/ undeclared worker (€)	% of total undeclared income earned by:
EU-28	4	100	100	723	100
Unemployed	9	20	9	696	18
Other non-employed	3	30	42	511	31
Employed	4	50	49	865	51



Table 2. Participation of the employed in undeclared work in the EU-28: 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	5	19	4	16	12	15	34	835
	Women	3	25	12	16	10	14	23	914
Age	15-24	7	39	6	25	3	18	9	617
	25-34	5	24	4	14	14	16	28	819
	35-44	3	12	11	15	12	16	34	1243
	45-54	3	18	6	16	11	8	41	659
	55-64	2	8	11	16	13	23	29	1138
	65+	2	12	0	0	5	12	71	1135
Marital status	Married/ remarried	3	20	7	15	7	14	37	872
	Unmarried/cohabitating	6	23	6	22	11	15	23	890
	Unmarried/single	5	25	10	16	17	15	17	751
	Divorce/separated	5	7	5	8	13	19	48	1289
	Widowed/other	3	21	0	1	11	0	67	363
Social class	Working class	5	12	8	16	11	12	41	883
	Middle class	3	25	7	18	10	19	21	919
	Higher class	2	82	3	0	4	4	7	175
	Other/ none	9	46	1	1	44	7	1	406
Age education ended	<15	5	13	6	15	19	14	33	1044
	16-19	4	22	7	15	8	14	34	754
	20+	3	20	8	20	13	15	24	970
Adults in household	One	5	12	9	21	16	13	29	804
	Two	3	15	7	18	11	17	32	973
	Three	4	39	5	11	10	10	25	754
	Four and more	3	32	3	5	5	20	35	773
Children	<10 years old	4	15	3	19	10	26	27	1168
	10-14 years old	4	23	9	16	17	8	27	673
	<10 and 10-14	4	29	17	4	12	5	33	455
	No children	4	22	7	17	10	13	31	815
Occupation	Self-employed	6	18	13	6	10	19	34	1214
	Managers	2	31	5	19	6	8	31	671
	Other white collars	3	21	8	25	11	19	16	925
	Manual workers	4	19	4	18	13	13	33	722
Difficulties paying bills	Most of the time	8	28	6	17	11	12	26	614
	From time to time	5	11	5	20	10	17	37	1137
	Almost never/never	3	26	10	13	12	12	27	693
Area	Rural area or village	4	13	4	20	12	15	36	1038
	Small or middle sized town	4	18	11	16	11	16	28	885
	Large town	4	35	4	12	11	13	25	645
EU region	EU 28	4	21	7	16	11	15	30	865
	Western Europe	4	31	7	16	11	15	20	682
	Southern Europe	3	4	3	9	15	24	45	1908
	East-Central Europe	5	13	9	21	10	4	43	457
	Nordic nations	6	19	8	18	12	30	13	1485

Table 3. Multilevel mixed-effects logistic regression of the participation of the employed in undeclared work in the European Union

VARIABLES	Model 1	Model 2	Model 3
Gender (CG: Women):			
Men	0.717*** (0.0945)	0.720*** (0.0968)	0.718*** (0.0968)
Age (CG: 15-24):			
25-34	-0.582*** (0.173)	-0.607*** (0.176)	-0.598*** (0.177)
35-44	-0.914*** (0.182)	-0.977*** (0.185)	-0.979*** (0.185)
45-54	-1.113*** (0.186)	-1.167*** (0.189)	-1.171*** (0.189)
55-64	-1.244*** (0.218)	-1.319*** (0.223)	-1.329*** (0.222)
65+	-1.010*** (0.373)	-1.267*** (0.392)	-1.301*** (0.392)
Marital status: (CG: Married/Remarried)			
Cohabiting	0.0743 (0.131)	0.0624 (0.133)	0.0585 (0.133)
Single	-0.332** (0.166)	-0.369** (0.168)	-0.359** (0.167)
Divorced/Separated	0.120 (0.184)	0.0667 (0.185)	0.0707 (0.185)
Widowed/ Other	0.0428 (0.276)	-0.0238 (0.286)	-0.0244 (0.286)
Social class, self-assessment (CG: The working class of society)			
The middle class of society	-0.307*** (0.0990)	-0.203* (0.106)	-0.206* (0.106)
The higher class of society	-0.600* (0.319)	-0.428 (0.324)	-0.431 (0.324)
Other/none	-0.319 (0.460)	-0.446 (0.477)	-0.457 (0.477)
Age stopped full time education (CG: 15- years):			
16-19	-0.201 (0.189)	-0.172 (0.192)	-0.207 (0.193)
20+	-0.140 (0.198)	-0.0346 (0.205)	-0.0739 (0.205)
Number 15+ years in household (CG:1 person):			
2 persons	-0.431*** (0.153)	-0.417*** (0.155)	-0.406*** (0.155)
3 persons	-0.249 (0.167)	-0.240 (0.168)	-0.227 (0.169)
4 persons	-0.398** (0.186)	-0.363* (0.188)	-0.346* (0.189)
Number of children: (CG: No Children)			
Children < 10	0.0465 (0.130)	-0.0385 (0.132)	-0.0418 (0.132)
Children 10-14	-0.0621 (0.172)	-0.115 (0.173)	-0.121 (0.173)
At least one child<10 and at least one 10-14	0.271 (0.188)	0.159 (0.191)	0.139 (0.192)
Tax morality	0.395*** (0.0232)	0.382*** (0.0238)	0.380*** (0.0239)
Occupation (CG: self-employed)			
Managers		-0.745*** (0.157)	-0.752*** (0.157)
Other white collars		-0.713*** (0.149)	-0.722*** (0.149)
Manual workers		-0.623*** (0.130)	-0.641*** (0.130)
Difficulties paying bills last year (CG: Most of the time)			
From time to time		-0.468*** (0.135)	-0.487*** (0.135)
Almost never/never		-1.029*** (0.144)	-1.066*** (0.144)
Area respondent lives (CG: Rural area or village):			
Small/middle sized town			-0.0415 (0.109)
Large town			-0.0274 (0.119)
Region: (CG: Western Europe)			
Southern Europe			-0.887*** (0.344)
East-Central Europe			0.124 (0.269)
Nordic Nations			0.774** (0.394)
Constant	-3.161*** (0.336)	-1.958*** (0.381)	-1.822*** (0.413)
Observations	11,616	11,541	11,539
Number of groups	28	28	28
Random-effects Parameters			
Identity: Country			
Variance (constant)	0.323***	0.458***	0.271***
Intra-class correlation (ICC)	0.090	0.122	0.076

Standard errors in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1