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# Rethinking the marginalisation thesis

# An evaluation of the socio-spatial variations in undeclared work in the European Union

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#### Abstract

**Purpose** – The purpose of this paper is to evaluate critically the "marginalisation" thesis, which holds that marginalised populations disproportionately participate in undeclared work. Until now, the evidence that participation in undeclared work is higher in marginalised areas (e.g. peripheral rural localities) and marginalised socio-economic groups (e.g. the unemployed, immigrant populations and women) has come from mostly small-scale surveys of particular localities and population groups. There have been no extensive quantitative surveys. Here, the intention is to fill this gap.

Design/methodology/approach – To do this, we report a 2007 survey of participation in undeclared work involving 26,659 face-to-face interviews conducted in 27 European Union (EU) member states. Findings – The finding is that the marginalisation thesis is valid when discussing younger people and those living in peripheral rural areas; they are more likely to participate in undeclared work. However, there is no significant association between immigrant populations and participation in undeclared work. Moreover, a reinforcement thesis, which holds that the undeclared economy reinforces the spatial and socio-economic disparities produced by the declared economy, applies when considering those with fewer years in education, women, the unemployed and less affluent European regions; they have lower participation rates than higher educated people, men, the employed and affluent European regions.

**Research limitations/implications** – The outcome is a call for a more nuanced understanding of the marginalisation thesis as valid for some marginalised populations but not others. Whether similar findings prevail at other spatial scales and in other global regions now needs investigating.

**Practical implications** – This survey displays that although it is appropriate to target some marginalised populations when tackling undeclared work, this is not valid for others (e.g. immigrant populations, the unemployed, those living in less affluent EU regions).

**Originality/value** – The first extensive evaluation of whether marginalised populations are more likely to participate in undeclared work.

**Keywords** European Union, Employee relations, Unemployment, Shadow economy, Taxes, Informal economy, Informal sector

Paper type Research paper

#### Introduction

For several decades, the dominant view has been that marginalised populations disproportionately participate in undeclared work (Ahmad, 2008; Castree et al., 2004;

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Employee Relations Vol. 37 No. 1, 2015 pp. 48-65 © Emerald Group Publishing Limited 0142-5455 DOI 10.1108/ER-06-2014-0074 Katungi et al., 2006). This marginalisation thesis views not only people living in Rethinking the marginalised areas, such as less affluent countries and peripheral rural areas, as more likely to engage in undeclared work (ILO, 2012, 2014), but also marginalised socio-economic groups, such as women, unemployed people and immigrants (Brill, 2011; Slavnic, 2010; Taiwo, 2013). Until now, however, the only evidence supporting this marginalisation thesis is small-scale surveys in particular localities or populations (Kesteloot and Meert, 1999; Leonard, 1994; Stănculescu, 2005). The aim of this paper therefore, is to evaluate critically this marginalisation thesis for the first time using an extensive cross-national survey involving 26,659 face-to-face interviews across the 27 member states of the European Union (EU-27).

To commence therefore, the first section reviews the literature on the socio-spatial variations in the level of participation in undeclared work. This displays the prevalence of two views: a dominant "marginalisation" thesis, which holds that marginalised populations disproportionately participate in undeclared work, and a "reinforcement" perspective, which argues that marginalised populations participate less in undeclared work, meaning that undeclared work consolidates, rather than diminishes, the socio-economic and spatial inequalities produced by the declared economy. Identifying that the only evidence supporting these theses are small-scale studies of particular localities or populations, the second section fills this gap by introducing the methodology used in an extensive 2007 Eurobarometer survey of undeclared work. The third section reports the results, revealing the need for a more nuanced understanding which recognises how some marginalised populations are more likely to engage in undeclared work (e.g. peripheral rural areas) and others not (those with fewer years in education, women, the unemployed, less affluent European regions, immigrants). The fourth and final section concludes by discussing the implications for both theory and policy.

Throughout this paper, and reflecting both the Eurobarometer survey and contemporary literature, the definition of undeclared work is activities not declared to the authorities for tax, social security and/or labour law purposes (Dekker et al., 2010; European Commission, 2007; OECD, 2012; Schneider, 2008; Williams, 2004, 2006, 2014; Williams and Windebank, 1998). If activities differ to declared work in additional ways, then this activity is not undeclared work. If the goods and/or services traded are illegal (e.g. illegal drugs) for example, then it is part of the wider "criminal" economy rather than undeclared economy, and if unpaid then it is part of the separate unpaid economy. Of course, in practice, the boundaries sometimes blur concerning what is undeclared work, such as when in-kind favours or gifts are involved. In this paper, in-kind favours are included. This paper, however, excludes declared employees in declared jobs who receive some of their wage as a declared salary and some as an additional undeclared ("envelope") wage (Williams, 2009). Instead, only activities that are wholly undeclared for tax, social security and/or labour law purposes are included.

## Explaining socio-economic and spatial variations in undeclared work

Two contrasting views prevail regarding the socio-economic and spatial variations in undeclared work, namely the marginalisation and reinforcement theses. Here, we review each in turn.

#### Marginalisation thesis

The "marginalisation" thesis holds that marginalised populations disproportionately participate in undeclared work (Ahmad, 2008; Castree et al., 2004; Gutmann, 1978; Katungi et al., 2006; Parker, 1982). This applies to both marginalised spaces as well as

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marginalised socio-economic groups. Examining spatial variations, there is a long-standing view at all spatial scales that participation in undeclared work is greater in less affluent areas. This applies whether discussing spatial variations across global regions (ILO, 2012; Williams, 2013), cross-national variations (Schneider, 2013; Schneider and Williams, 2013), variations across localities (Blair and Endres, 1994; Kesteloot and Meert, 1999; Robson, 1988; Williams and Windebank, 2001) or urban-rural variations (Button, 1984; Hadjimichalis and Vaiou, 1989; Williams, 2010). It is similarly the case when discussing socio-economic variations. The marginalisation thesis purports that marginalised groups are more likely to participate in undeclared work. For example, this thesis claims that unemployed people are more likely to participate in undeclared work than those in formal employment (Brill, 2011; Castells and Portes, 1989; Gutmann, 1978; Leonard, 1994; Slavnic, 2010; Taiwo, 2013). Women are also asserted to be more likely to participate than men (ILO, 2013; Leonard, 1994, 1998; Lobo, 1990a, b; Stănculescu, 2005) and immigrants more likely to participate than those born in the country (Community Links and the Refugee Council, 2011).

## Reinforcement thesis

Over the past few decades, however, a reinforcement thesis has emerged that has begun to challenge this dominant marginalisation thesis. This argues that participation in undeclared work is lower amongst marginalised populations, meaning that the undeclared economy reinforces, rather than reduces, the disparities produced by the declared economy. For example, the argument is that populations in affluent regions and localities are more likely to conduct undeclared work than populations in less affluent regions and localities. This has been argued in the Netherlands (e.g. van Geuns *et al.*, 1987), the UK (e.g. Evans *et al.*, 2006; Williams and Windebank, 2001) and France (e.g. Cornuel and Duriez, 1985). Similarly, unemployed people have also been asserted to be less likely to engage in undeclared work than employed people (MacDonald, 1994; Pahl, 1984; Renooy, 1990; Williams, 2001), women less likely to participate in undeclared work than men (Lemieux *et al.*, 1994; McInnis-Dittrich, 1995) and immigrants less likely than the native population (Marcelli *et al.*, 2010).

Until now, however, most of the evidence in support of the marginalisation and/or reinforcement theses are small-scale studies of particular localities and/or population groups. For example, in the UK, the only evidence available is a survey conducted over three decades ago on the Isle of Sheppey (Pahl, 1984) and a comparison of deprived and affluent neighbourhoods in two UK cities, namely Southampton and Sheffield, conducted well over a decade ago (Williams, 2004; Williams and Windebank, 2001). Given this patchy and out-of-date evidence-base, and how these previous studies do not evaluate the validity of the marginalisation and/or reinforcement theses at all spatial scales and across all socio-demographic groups, the aim of this paper is to begin to fill this gap.

## Methodology

To evaluate critically the dominant marginalisation thesis and the counter-narrative of the reinforcement thesis, we here use the Special Eurobarometer No. 284 ("Undeclared work in the European Union"), conducted as part of wave 67.3 of Eurobarometer, in all 27 EU member states. Employing the same sampling methodology as other Eurobarometer surveys, 26,659 interviews were conducted during May and June 2007 on a face-to-face basis, with some 500 conducted in smaller countries and 1,500 in

larger nations. In every country, a multi-stage random (probability) sampling Rethinking the methodology was used. The weighting process used ensures that on the issues of gender, age, region and locality size, the sample was proportionate to the universe in each country. 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.

To collect data on undeclared work, face-to-face interviews were carried out in the national language with adults aged 15 years and older. Given the sensitive nature of the topic, the interview schedule adopted a gradual approach to the more sensitive questions in order to build up rapport with the participants. The interview schedule thus started by asking about their attitudes towards undeclared work, followed by questions on whether they had received undeclared goods and services and only then questions regarding their participation in undeclared work. Examining the responses of interviewers regarding their perceived reliability of the interviews, the finding is that in 88 per cent of the interviews, interviewers reported good or excellent cooperation from the participant. Cooperation was bad in only 2 per cent of cases.

Given this, attention can turn to an analysis of the results. To do this, the hypothesis is that participation in undeclared work varies according to socio-demographic variables (gender, age, political views, marital status, age when stopped full time education, birthplace, parent's birthplace, people 15+ years in own household, number of children, tax morality index), socio-economic variables (employment status) and spatial characteristics (region, area respondent lives). To analyse this, we here use multilevel mixed-effects logistic regression analysis. The Appendix sets out the independent variables used to analyse these socio-demographic, socio-economic and spatial disparities in undeclared work. Below, we report the findings.

#### Findings: socio-spatial variations in undeclared work

Of the 26,659 face-to-face interviews conducted, and as Table I displays, 4.45 per cent of participants reported engaging in undeclared work during the past 12 months. A further 3.3 per cent refused to answer or said that they did not know. Even if undeclared work is a sensitive issue and differences between the reported and real situation of undeclared work might be significant, meaning that these may be under-estimates, some 1 in 22 citizens of the EU self-reported that they had participated in undeclared work in the past year. Of those doing so, 81 per cent had received money, 11 per cent had been remunerated in-kind and 6 per cent had been remunerated both in money and in-kind. Some 16 per cent of those engaging in undeclared work had carried out this activity only once, 50 per cent a few times and 32 per cent regularly. The majority of undeclared work therefore, is not a one-off odd job but undertaken on a more regular basis.

To start to display the uneven distribution of undeclared work, Table I reports the cross-national variations. This reveals that participation in undeclared work is highest in Denmark (18 per cent of participants), Latvia (15 per cent), the Netherlands (13 per cent), Estonia (11 per cent), Sweden (10 per cent), and lowest in Cyprus (1 per cent), Malta (2 per cent) and the UK (2 per cent). As such, the marginalisation

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		No. of respondents	% engaged in undeclared work	Fre Just once (%)	quency for u (past 1 A few times (%)	Frequency for undeclared activities (past 12 months)  e A few With certain R times (%) regularity (%) I	ies Refusal/ DK (%)	Remur Mainly in money (%)	heration for u Mainly in kind (%)	Remuneration for undeclared activities by in Mainly in Both equally Re (%) kind (%) DF	rities Refusal/ DK (%)
8,425 1,009 1,003 1,003 1,039 6 1,510 1,001 1,001 1,000	EU-27	26,659	4.45	16	20	32	2	81	11	9	2
1,009 1,003 1,039 6 1,510 3 5,029 5,029 1,000 1,0	Western Europe	8,425	4	18	54	27	1	28	15	2	2
1,040 6 1,039 6 1,039 6 1,510 3 510 4 4 1,001 13 1,313 2 5029 3 503 1 1,002 3 1,002 3 1,000 3 1,004 11 1,004 11 1,000 5 1,000 5 1,000 5 1,000 6 1,000 5 1,000 6 1,000 7 1,000 7 1,000 7 1,000 7 1,000 7 1,000 7 1,000 8 1,000	Austria	1,009	7	9	51	38	2	83	6	က	2
1,003 1,039 1,510 510 1,001 1,313 5,029 503 1,000 1,017 1,000 1,004 1,004 1,004 1,004 1,000 1,004 1,000 1,004 1,000 1,004 1,000 1,017 1,000 1,017 1,000	Belgium	1,040	9	13	49	38	0	92	2	က	0
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1,313 2 5,029 3 5,029 1 1,000 4 1,017 3 500 2 1,007 3 1,007 3 1,000 5 1,004 7 1,000 5 1,000 7 1,000 15 1,000 5 1,000 7 1,000 7 1,000 6 1,017 7 1,000 6 1,000 15 1,000 16 1,000 16 1,000 17 1,000 18 1,000 18 1,000 10 1,000	The Netherlands	1,001	13	22	46	31	1	70	22	9	2
5,029 508 1,000 1,000 4 1,007 3 10,171 3 10,002 3 1,000 1,000 1,000 1,000 1,010 1,00	UK	1,313	2	26	20	24	0	83	18	0	0
503 1,000 1,017 500 2 1,002 1,002 3 1,000 1,000 1,000 1,000 1,010 1,000	Southern Europe	5,029	က	11	42	47	0	83	1	4	2
1,000 4 1,017 3 500 2 1,002 3 1,007 3 1,007 3 1,000 5 1,000 7 1,010 15 1,010 15 1,004 4 1,004 4 1,004 4 1,007 5 1,007 5 1,007 6 1,007 7 1,007 6 1,007 6 1,007 6 1,007 6 1,007 7 1,007 6 1,007 7 1,007 6 1,007 6 1,007 7 1,007 6 1,007 6 1,007 6 1,007 7 1,007 7 1,0	Cyprus	203	1	0	100	0	0	100	0	0	0
1,017 3 1,002 2 1,002 3 1,002 3 1,007 3 1,004 7 1,010 15 1,010 15 1,010 15 1,004 4 1,075 6 1,007 5 1,007 18 1,007 18 1,007 18	Greece	1,000	4	12	49	33	0	100	0	0	0
500 2 1,002 3 1,002 1,000 3 1,000 1,	Italy	1,017	က	10	31	26	0	66	0	9	4
1,002 3 1,007 3 1,007 3 1,000 5 1,000 7 1,004 11 1,000 7 1,010 15 1,007 6 1,007 6 1,007 6 1,007 18 1,007 18 1,007 18	Malta	200	2	0	27	73	0	78	0	0	22
1,007 3 1,000 5 1,000 5 1,004 11 1,000 7 1,010 15 1,017 7 1,000 5 1,004 4 1,075 6 1,075 6 1,037 5 3,034 11 1,007 18 1,007 18	Portugal	1,002	က	20	88	39	က	83	0	11	9
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1,024 7 1,004 111 1,000 7 1,010 15 1,017 7 1,000 5 1,004 4 1,075 6 1,075 6 1,037 11 1,007 18 1,007 18 1,026 4	Bulgaria	1,000	2	9	34	28	2	26	2		0
1,004 11 1,000 7 1,010 15 1,017 7 1,000 5 1,004 4 1,075 6 1,075 6 1,037 11 1,007 18 1,026 4 1,026 4	Czech Republic	1,024	7	14	99	22	∞	62	16	18	4
1,000 7 1,010 15 1,017 7 1,000 5 1,004 4 1,075 6 1,037 5 3,034 11 1,007 18 1,026 4	Estonia	1,004	11	10	42	41	7	85	∞	7	က
1,010 15 1,017 7 1,000 5 1,004 4 1,075 6 1,037 5 3,034 11 1,007 18 1,026 4 1,001 10	Hungary	1,000	7	7	47	46	0	72	19	6	0
1,017 7 1,000 5 1,004 4 1,075 6 1,037 5 3,034 11 1,007 18 1,026 4	Latvia	1,010	15	10	88	47	2	28	သ	14	2
1,000 5 1,004 4 1,075 6 1,037 5 3,034 11 1,007 18 1,026 4	Lithuania	1,017	7	6	47	42	2	83	9	∞	က
1,004 4 1,075 6 1,037 5 3,034 11 1,007 18 1,026 4	Poland	1,000	2	19	48	30	က	85	2	13	0
1,075 6 1,037 5 3,034 11 1,007 18 1,026 4	Romania	1,004	4	6	33	43	6	74	7	16	က
1,037 5 3,034 11 1,007 18 1,026 4 1,001 10	Slovakia	1,075	9	17	09	23	0	98	8	9	0
3,034 11 1,007 18 1,026 4 1,001 10	Slovenia	1,037	2	24	49	22	2	80	6	7	4
1,007 18 1,026 4 1,001 10	Nordic nations	3,034	11	23	22	22	0	8	14	2	1
1,026 4 1,001 10	Denmark	1,007	18	63	47	24	0	62	14	2	2
1001	Finland	1,026	4	16	69	15	0	92	12	10	2
1006	Sweden	1,001	10	19	29	22	0	85	14	3	-1

Table I. Participation in undeclared work in the past 12 months, by EU member state

thesis does not appear to hold at the cross-national scale. Many relatively affluent Rethinking the European member states have higher participation rates in undeclared work than less affluent nations. This is reinforced when participation rates across European regions are compared. The most affluent European region, namely the Nordic nations, has the highest participation rate in undeclared work (11 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, tentatively provides support for the reinforcement thesis rather than the marginalisation thesis when considering the crossnational and European regional variations in undeclared work.

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Turning to the socio-demographic and socio-economic variations, Table II displays, contrary to the marginalisation thesis, that participation in undeclared work is higher amongst men than women (6 per cent of men conducted undeclared work but only 3 per cent of women). Similarly, unemployed people are less likely to report engaging in undeclared work than those who are in declared jobs (4 per cent compared with 5 per cent), and those who stopped education earlier are less likely to participate in undeclared work than those who remained in education longer or are still in education. The tentative suggestion therefore, is that the marginalisation thesis does not apply when discussing women compared with men, the unemployed compared with the employed and those with fewer years in education compared with those who spent longer in education. Instead, the reinforcement thesis tentatively appears to be valid.

However, when examining other socio-economic groups, it is more the marginalisation thesis that tentatively appears to be applicable. Not only is the participation rate in undeclared work slightly higher in rural than urban areas, but so too is participation higher both for those not born in the country in which they now reside and for those whose parent's birthplace was in another country to that in which they reside. In these cases therefore, it is more the marginalisation thesis that appears to be valid than the reinforcement thesis. It is similarly the case that when age, marital status, whether they have children and household composition are analysed, younger age groups, single people, those with children and living in larger households reinforce the marginalisation thesis.

Analysing these descriptive statistics 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-economic groups. Instead, the marginalisation thesis appears to be applicable when analysing some population groups but the reinforcement thesis for others.

# Which socio-spatial factors are related to undeclared work?

We here analyse the hypothesis that participation in undeclared work varies according to socio-demographic variables (gender, age, political views, marital status, age when stopped full time education, birthplace, parent's birthplace, people 15+ years in own household, number of children, tax morality index), socio-economic variables (employment status) and spatial characteristics (region, area respondent lives). Given the hierarchical structure of the data (individuals nested within countries), for the multivariate analysis, we employ a multilevel model. As the dependent variable is dichotomous, we use a multilevel mixed-effects logistic regression (Snijders and Bosker, 2012). Indeed, the likelihood-ratio test for the null hypothesis that there are no cross-country variations in undeclared work reports that this hypothesis can be safely rejected. Therefore, the multilevel mixed-effects logistic regression should be the one used.

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(continued)

Table II. Participation in

undeclared work in the EU-27: by socio-demographic, occupational and spatial characteristics

ities Refusal/ DK (%)	0 0 1 7 2	20 20	1 10	0100		7 m = 1	2 - 1 - 3	Rethinking the marginalisation thesis
Remuneration for undeclared activities ly in Mainly in Both Ref y (%) kind (%) equally (%) DK	7 2 8 8 2	<i>P</i> 8	1 5	10 8 3	3 6 13	2	10 5 4	55
eration for un Mainly in kind (%)	11 5 0 16	11 6	2 40	8 112 10	7 15 23	10 7 14	13 8	
Remun Mainly in money (%)	80 93 92 82	81 86 75	96 45	80 79 82 84	89 78 63	81 84 78	74 82 87	
12 months) Refusal/ DK (%)	1 0 0	3 1 1	0 1	m −1 01 01	0 0 1	7 2 7	7 - 7 - 7	
Frequency for undeclared activities (past 12 months)  Just once A few With certain Refusal/ (%) times (%) regularity (%) DK (%)	33 30 12 17	33 34 30	34 23	32 29 37 34	28 42 25 25	32 40 26	32 32 32	
or undeclared A few times (%)	55 80 39	49 49 57	55	52 52 46 48	50 54 54	50 45 54	55 48 46	
Frequency f Just once (%)	16 15 8 44	17 16 10	10	13 18 15 16	22 8 20	16 13 19	12 18 20	
Share of undeclared work People doing undeclared work (%)	4 4 W W	4 75	8 4	4 4 C C	ତ ୧୬	4 4 C	R 4 4	
	Birthplace Own country Another EU country Europe (not EU country) Outside Europe	Parent's birthplace Both in own country One in own country, one in another EU country Both in another EU country	One in own country, one outside EU Both outside EU People 15+ years in own	Two Two Three Four and more	Commerce (at least one) Less than 10 years old Between 10 and 14 years old Less than 10 years old and between 10 and 14 years old	No children Employment Not employed Employed	Ared Rural area or village Small or middle sized town Large town	Table II.

To analyse the effect of the various independent variables on participation in undeclared work, an additive model is used. The first stage model (M1) examines the socio-demographic factors to examine their effects while the second stage model (M2) adds the 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 their influence on participation in undeclared work. Table III reports the results.

Model 1 in Table III shows that the marginalisation thesis is valid when analysing various socio-demographic disparities in participation rates. Not only are younger age groups significantly more likely to engage in undeclared work but so too are those not married and those who are more tolerant of undeclared work. The latter 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). Contrary to the marginalisation thesis and in support of the reinforcement thesis, however, men are significantly more likely to conduct undeclared work than women. So too are those with more years in formal education more likely to participate in undeclared work than those with fewer years in formal education. No evidence is found to support the marginalisation (or reinforcement) thesis, however, so far as migrant populations being more likely to participate in undeclared work are concerned. As such, when considering the socio-demographic variables, the finding is that a more nuanced understanding of the validity of the marginalisation thesis is required. This marginalisation thesis is supported in relation to some marginalised population groups (e.g. younger people and those with non-conformist attitudes), but not others (e.g. women, migrants, the less educated).

When Model 2 adds the socio-economic factor of employment status to the socio-demographic variables, there are no major changes to the influence of the socio-demographic variables on participation in undeclared work. Those that were statistically significant in Model 1 and the direction of the association remain the same. However, those in declared employment are significantly more likely to engage in undeclared work than those who are unemployed, thus providing support for the reinforcement thesis. Furthermore, when spatial factors are added to the socio-demographic and socio-economic variables in Model 3, the finding is that not only are those living in rural areas more likely to participate in undeclared work than those living in urban areas, but so too are those living in the more affluent EU region of the Nordic nations. Here therefore, there is support for the marginalisation thesis when considering the urban-rural divide but the reinforcement thesis when considering the disparities in participation across European regions.

#### Discussion and conclusions

To evaluate the marginalisation thesis, this paper has reported the results of a 2007 survey involving 26,659 face-to-face interviews in the 27 member states of the EU. Using multilevel mixed-effects logistic regression analysis, this has revealed some support for the marginalisation thesis, especially when considering the sociodemographic characteristics of undeclared workers. Younger age groups are significantly more likely to engage in undeclared work as are those not married and those more tolerant of undeclared work (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). The fact that those living in the peripheral rural areas conduct

Condax (C. Romale)			
Jones (53. 1 cmas) Men Men (76. 15.24)	0.862*** (0.0602)	0.886*** (0.0609)	0.879*** (0.0610)
1ge (CG. 13-24)			
25-34	-0.0138 $(0.116)$	0.000157 (0.116)	0.00702 (0.117)
35-44	-0.257** (0.126)	-0.244 * (0.126)	-0.242*(0.126)
45-54	-0.624***(0.135)	-0.627*** (0.135)	-0.627*** (0.136)
55-64	-1.048***(0.149)	-1.122***(0.152)	-1.125***(0.152)
65+	-2.070***(0.185)	-2.220***(0.192)	-2.220***(0.192)
Political views (CG: left)			
Centre	-0.191**(0.0760)	-0.190**(0.0761)	-0.196***(0.0761)
Light	-0.167**(0.0819)	-0.161**(0.0819)	-0.166**(0.0819)
DK/Refusa1	-0.540***(0.0961)	-0.549***(0.0962)	(0.0960) ****
Marital status (CG: married/remarried)			
Sohabiting	0.367***(0.0994)	0.367*** (0.0994)	0.368*** (0.0994)
Single	0.209* (0.110)	0.200* (0.110)	0.219** (0.110)
Divorced/separated	0.551*** (0.113)	0.543*** (0.113)	0.558*** (0.113)
Widowed	0.0564 (0.178)	0.0464 (0.178)	0.0469 (0.178)
Other	0.492* (0.293)	0.489* (0.293)	0.489* (0.294)
Age stopped full time education (CG: 15 years)			
16-19	-0.149(0.100)	-0.124(0.101)	-0.117 (0.101)
20+	-0.313*** (0.108)	-0.264**(0.110)	-0.241**(0.110)
Still Studying	-0.215 (0.148)	-0.354** (0.155)	-0.333** (0.156)
Birthplace (CG: in own country):			
Another EU country	0.0881 (0.247)	0.0926 (0.246)	0.0662 (0.250)
in Europe, but not in EU	0.128 (0.299)	$0.134 \ (0.299)$	0.136 (0.299)
Outside Europe	0.193 (0.268)	0.175 (0.268)	0.179 (0.269)
			(continued)

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Table III. Multilevel mixedeffects logistic regression of propensity to participate in undeclared work

Table III.		ER 37,1 58
Variables Model 1	Model 2	Model 3
Parent's birthplace: (CG: both born in country) A parent born in country and other in EU Both parents born in another EU country  0.0739 (0.155)	0.0740 (0.155) 0.0624 (0.245)	0.0918 (0.155)
One parent born in country and otner 0.225 (0.158)  Both parents born outside the EU -0.190 (0.209)	0.228 (0.158) -0.198 (0.209)	0.255 (0.158) -0.153 (0.210)
Vulmer 15+ years in nousehold (Cc:1 person)  2 persons  -0.0893 (0.0997)  3 persons  -0.0539 (0.108)  4+persons  -0.0189 (0.115)	-0.0873 (0.0998) -0.0478 (0.109) -0.0128 (0.115)	-0.0928 (0.100) -0.0579 (0.109) -0.0328 (0.116)
Children < 0.0927 (0.0910)  Children < 10  Children 10-14  One child < 10 and one 10-14  Tax morality  0.755*** (0.254)	-0.106 (0.0913) 0.0827 (0.101) 0.0301 (0.127) 0.756*** (0.255)	-0.103 (0.0915) 0.0765 (0.101) 0.0174 (0.127) 0.822**** (0.225)
Employment (CC: unemployed) Employed Area respondent lives (CG: rural area or village): Large town	-0.221*** (0.0792)	-0.221*** (0.0793) -0.122* (0.0695) -0.159**(0.0754)
EU Region: Western Europe (CG: Nordic Nations) Western Europe East-Central Europe Southern Europe		-1.216*** (0.298) -1.062*** (0.322) -1.648*** (0.310)
Constant Constant Observations Number of groups  27  Random offsets narmaters	$-4.432^{****}$ (0.687) 24,996 27	-3.403**** (0.568) 24,928 27
Nationary country Variance (constant)  Notes: Standard errors in parentheses; *** $p < 0.01$ ; ** $p < 0.05$ ; * $p < 0.1$	0.349***	0.150***

more undeclared work than those in urban areas also supports the marginalisation Rethinking the thesis. No evidence is found to support the marginalisation (or reinforcement) thesis, however, so far as migrant populations being more likely to participate in undeclared work are concerned. Contrary to the marginalisation thesis and in support of the reinforcement thesis nevertheless, men are found to be significantly more likely to conduct undeclared work than women, as are younger age groups. So too are those in declared employment more likely to engage in undeclared work than the unemployed and those living in more affluent EU region of the Nordic nations.

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Examining the theoretical implications of these findings, the result is that a more nuanced interpretation of the marginalisation thesis is required. Examining the survey results, the finding is that the marginalisation thesis applies when examining sociodemographic characteristics such as their age and marriage status. However, when age, gender, employment status and regional variations are analysed, the finding is that the reinforcement thesis is valid, namely participation in undeclared work reinforces the disparities produced by the declared economy. What is now required is to evaluate whether the findings are similar when examining other global regions, especially developing countries, and other spatial scales such as particular nations, regions and localities.

Turning to the policy implications of these findings, the first important implication is that these results display the spaces and populations that need targeting when seeking to tackle undeclared work. In recent years, there has been an emphasis on targeting immigrant populations, displayed by the European Parliament in 2014 adopting a legislative initiative to establish a European platform for tackling undeclared work, not least to deal with migrant workers (Dekker et al., 2010; European Commission, 2014). However, this paper reveals that migrant populations are not disproportionately engaged in undeclared work and that such a European platform should therefore concentrate on issues other than confronting migrant populations, such as sharing best practice on how to tackle such work. Moreover, this paper reveals that the current targeting of the unemployed by many national governments when tackling undeclared work is a mistake. The employed are more likely to participate in undeclared work and undertake the majority of such work. Popular policy initiatives to smooth the transition from unemployment to self-employment therefore, are unlikely to have much impact on the overall participation rate in undeclared work. Although it is inappropriate to target some marginalised populations when tackling undeclared work (e.g. immigrant populations, the unemployed, those living in less affluent EU regions), this paper does reveal that it may be worthwhile targeting other marginalised population groups such as younger people. This analysis, therefore, provides a risk assessment of different marginal populations to enable an evaluation of the validity of the currently targeted populations.

In sum, this paper has revealed for the first time the need for a more nuanced approach towards the marginalisation thesis. Although it is applicable when considering some socio-demographic characteristics in that certain groups, such as younger people, are more likely to engage in undeclared work, it is not relevant for other groups such as immigrant populations. Moreover, on socio-economic and spatial characteristics, it is the reinforcement thesis that is valid in that men, the employed and more affluent areas have higher participation rates. If this paper thus stimulates a more nuanced approach towards understanding the marginalisation thesis, then it will have fulfilled its objective. If it also encourages a deeper investigation of the policy implications of this more nuanced understanding, not least in terms of the populations targeted by the authorities when tackling undeclared work, then it will have fulfilled its wider intention.

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# Appendix

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Variables	Definition	Mode or mean (SD)	Min./ Max.
Undeclared activities	Dummy variable of undeclared activities carry out in the last 12 months for which No undeclared activities the resnondent was paid in money or in kind	No undeclared activities (95.40%)	0/1
Gender	Dummy for the gender of the respondent	Female (51.80%)	0/1
Age Political views	Respondent age in intervals Respondent political view in categories	Over 65 (19.75%) Centre (32.13%)	1/6 1/4
	Respondent marital status in categories	Married/remarried (50.86%)	
Age wnen stopped run rime education	Kespondent age when stopped tull time education in categories	16-19 years old (41.68%)	1/4
Birthplace	Respondent birthplace in categories	Own country (93.92%)	1/4
Parent's birthplace	Parent's birthplace of the respondent in categories	Mother and father in own country (89.14%)	1/5
People 15+ years in own household	People 15+ years in respondent's household (including the respondent) in categories Two people (45.25%)	Two people (45.25%)	1/4
Children Tax morality index	Presence of children (up to 14 years old) in the household in categories Constructed index of self-reported tolerance towards tax non-compliance	No children (71.38%) 2.47 (0.33)	1/4 1.53/ 3.49
Employment Region Area respondent lives	Dummy for the employment status of the respondent Region where the respondent lives in categories Size of the area where the respondent lives in categories	Employed (50.40%) Western Europe (47.86%) Small or middle sized town (42.34%)	0/1 1/4 1/3
Source: Eurobarometer 28'	Source: Eurobarometer 287 (2007): undeclared work in the European Union		

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

# Variables description

Dependent variable

The dependent variable is dichotomous with recorded value 1 for persons who answered "yes" to the question "QB19 Did you yourself carry out any undeclared activities in the last 12 months for which you were paid in money or in kind? Herewith we mean again activities which were not or not fully reported to the tax or social security authorities and where the person who acquired the good or service was aware of this" and with recorded value 0 otherwise.

Independent variables

(a) Socio-demographic characteristics includes:

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.

Political view: a categorical variable for the self-reported ideological placement of the respondents with value 1 for Left, value 2 for Centre, value 3 for Right, value 4 for Refusal and Don't know.

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, value 5 for widowed, and value 6 for other form of marital status.

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".

Birthplace: a categorical variable for birthplace of the respondent with value 1 for birthplace in own country, value 2 for birthplace in another Member Country of the EU, value 3 for birthplace in Europe, but not in a Member Country of the Euro, and value 4 for birthplace outside EU.

Parent's birthplace: a categorical variable for parent's birthplace of the respondent with value 1 if both parents were born in own country of the respondent, value 2 if one parent was born in own country of the respondent and the other in another EU country, value 3 if both parents were born in another EU country, value 4 if one parent was born in own country of the respondent and the other outside the EU, and value 5 if both parents were born outside the EU.

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 Rethinking the non-compliance.

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(b) Occupational/economic characteristics includes:

Employment: a dummy variable with value 1 for employed respondents and 0 for unemployed respondents.

(c) Spatial characteristics includes:

Region: a categorical variable for the region where the respondent lives with value 1 for the Nordic Nations region, value 2 for the Western Europe region, value 3 for the East-Central Europe region, and value 4 for the Southern Europe region.

Area respondent lives: a categorical variable for the 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 town.

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Colin C. Williams is a Professor of Public Policy in the Management School at the University of Sheffield in the UK. His research interests include the informal economy, work organisation and the future of work. His books include Informal Work in Developed Nations (2010, Routledge), Rethinking the Future of Work: directions and visions (2007, Palgrave Macmillan), The Hidden Enterprise Culture (2006, Edward Elgar), A Commodified World? mapping the limits of capitalism (2005, Zed) and Cash-in-Hand Work (2004, Palgrave Macmillan). Professor Colin C. Williams is the corresponding author and can be contacted at: C.C.Williams@Sheffield.ac.uk

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