

Does higher cash-in-hand income motivate young people to engage in under-declared employment?

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Abstract

The aim of this paper is to analyse financial gains as a motive for engaging in under-declared employment (choosing envelope wages) amongst youth population. A youth profile of those more likely to choose envelope wages for financial gains is proposed, based on socio-demographic characteristics. Reporting on a survey amongst 1,059 students and employing logistic regression analysis, the finding is that unmarried undergraduate students with a difficult financial situation are more likely to choose envelope wages for a higher cash-in-hand income. Various theoretical explanations and motivations for engaging in such noncompliant behaviour are then explored to test their validity for the youth population. Previous personal behaviour, tax morality, peers' behaviour (social norm) as well as trust in public authorities enforcing compliance with labour law are found to be associated with the propensity to choose envelope wages for financial gains. The implications of these findings are discussed in the concluding section.

Keywords: under-declared employment, under-declared wages, envelope wages, undeclared work, financial motivation

Introduction

Although initially expected that undeclared economy would vanish together with economic development, in recent years it has been recognised that paid transactions hidden from the authorities are still encountered around the globe, in both developing and developed countries (ILO, 2013; La Porta and Shleifer, 2014). As such, finding solutions for reducing this phenomenon represents an important issue for national governments as well as for the supranational organisations. This

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can be exemplified by the establishment of the European Platform Tackling Undeclared work in 2016 by the European Commission (Decision (EU) 2016/344 of the European Parliament and of the Council of 9 March 2016), with the aim of enhancing cooperation between the relevant actors involved in tackling undeclared work.

However, there are multiple forms of undeclared work which occur due to different motivations of the people involved, which makes tackling this phenomenon very challenging. Undeclared work can be conducted in two ways: as a dependent working relationship (i.e., subordination relationship – employer-employee) or on their own account (i.e., worker not declaring or partially declaring the work conducted on their own account). In a dependent working relationship, the most common forms of undeclared work include unregistered employment (i.e., the employee is not registered with the authorities and most often does not have a working contract and therefore, their wage is undeclared) (Williams and Horodnic, 2018, 2019) and under-declared employment (i.e., the employee is registered but the remuneration of the employee is under-declared in order to reduce the due tax and social security contribution) (Williams and Horodnic, 2020). The practice of under-declared employment is commonly referred to as “envelope wages” and means that the wage received by the employee has two fractions: (i) one fraction which is included in the working contract and which is declared to the authorities; (ii) an additional undeclared “envelope wage” based on a verbal mutual agreement between the employer and the employee, which is hidden from the authorities in order to reduce the tax and social security contributions owed by the employer and its employee (Meriküll and Staehr, 2010; Williams and Horodnic, 2017).

In transition economies, the practice of envelope wages is highly prevalent. Indeed, a study in Baltic countries concluded that envelope wages represent the highest share of the undeclared economy in the region (52.3% in Estonia, 42.9% in Lithuania and 39.2% in Latvia) (Putniņš and Sauka, 2015). A more extensive study, using data from the 2007 Eurobarometer survey revealed that, across Europe, the highest share of under-declared employment was registered in Romania (22%) (Williams and Padmore, 2013). More recent data, from 2019, display that in Romania, this practice still represents a sizeable issue, with 5% of the employees declaring that they have received envelope wages from their employer in the past twelve months, as compared with the average of 3% of the employees at the European Union level (European Commission, 2020).

A large number of previous studies on undeclared economy as a whole show that, alongside with other vulnerable groups, it is more common for students to get involved in undeclared activities rather than in formal regular jobs due to the lack of choices (Feld and Schneider, 2010; Olarinmoye, 2016). However, other studies question the involuntariness of undeclared activities conducted by some vulnerable groups and underline that for some groups, such as the students, atypical employment arrangements could be preferred over the formal regular jobs (Nikulin,

2016). Pfau-Effinger (2009) acknowledges that students display less interest in a formal regular job because their primary status as students provides them with full insurance and therefore they might find it more attractive to engage in undeclared activities due to other motivational factors. As far as the authors are aware, except for a pilot study which only investigated the prevalence of under-declared employment and revealed that a share of 39% of students received envelope wages (Horodnic and Williams, 2017), there are no previous studies which investigate the motives of accepting or even preferring envelope wages amongst students. This is rather surprising considering that it was shown that students are more likely to be involved in undeclared activities and that youth prefer more atypical forms of job arrangements and therefore, it is highly possible that they would accept envelope wages easier than other employee groups.

This paper will be the first study starting to theorize youth's motivation behind accepting or even voluntarily choosing envelope wage payments. On the other hand, Romania is one of the European countries with the highest level of number of employees receiving envelope wages which makes this country appropriate for investigating this issue. Another important element of novelty in this study is the quantitative data collection design which allows us to identify the motives behind the choice of envelope wages by students in a scenario where no constraints and/or negotiation with the employer had taken place. Unlike other previous studies, the instrument used here asks students to make a choice considering a real scenario, namely a limited budget available from an employer for a specific job. As such, the students had to choose between having the entire amount available for their job specified in the employment contract even if the net final income would be lower and having an under-declared income specified in the employment contract but to receive a higher cash-in-hand income (i.e., envelope wages) in reality. This enables to better delimitate and understand whether the financial motivation is the primary motivation for students to accept this practice and what other factors determine students to prefer envelope wages against a full formal work.

The objective of this study is therefore, twofold. Firstly, a youth profile of those more likely to choose envelope wages for financial gains is proposed based on their socio-demographic characteristics and secondly, various theoretical explanations and motivations for engaging in undeclared activities are explored in order to test their validity for youth population. These include personal factors (i.e., previous behaviour and the level of tax morality) as well as factors rather connected to with the environment students live in (i.e., the deterrents in place for undeclared activities, the social norm as well as the level of trust in the main institution tackling undeclared work).

To reach this objective, the paper continues by briefly introducing the main theoretical explanations that might explain why students engage in undeclared activities and by developing the consequent hypotheses to be tested. Section 2 provides information about the data collection and the methodological approach employed to

test the validity of the hypotheses and then, Section 3 presents and discusses the findings. Finally, Section 4 is dedicated to the implications of the findings.

1. How do previous theories explain the participation in undeclared activities?

Previous studies explored either the prevalence or distribution of under-declared employment, and the population groups which are more likely to receive envelope wages but did not explore the motivational factors for doing so. These studies revealed that this practice is more prevalent in developing countries, and that Romania is one of the European countries with the highest prevalence of under-declared employment (European Commission, 2020; Williams and Padmore, 2013) or other noncompliant practices (Williams *et al.*, 2016). As for population groups, the tentative finding is that vulnerable groups are more often targeted by employers (e.g., younger persons, women and those with a low income) (Williams and Padmore, 2013; Williams and Franic, 2017). To test the validity of these findings, a youth profile of those more likely to choose envelope wages for financial gains is proposed based on their socio-demographic characteristics. In addition, what is also required is to identify the factors influencing the decision to accept envelope wages arrangements, which will then enable tackling this issue in a more effective manner.

Alongside with the socio-demographic characteristics, we first explore the role of other personal factors that might explain the youth's predilection to choose envelope wages for financial gains against fully formal wages. As such, drawing from the path dependence theory (Liebowitz and Margolis, 1995), with particular evidence illustrating the path dependence for tax evasion, and respectively tax compliance (Bruttel and Friehe, 2014), the influence of the previous personal behaviour is investigated. The behavioural mechanism explaining path dependent behaviour lays on the formation of a reference point (both in terms of how the payment has been received and on its higher value due to evading the due contributions), thus a benchmark used in outcome evaluation (Kahneman, 1992), which remains valid in future decision-making processes (Apestegua and Ballester, 2009; Kőszegi and Rabin, 2006). Considering the incipient work experience of students, especially of those from the undergraduate group, early exposure to envelope wage practices may also trigger an anchoring effect (Ariely *et al.*, 2003) that would create adhesion to future similar behaviours of engaging in various forms of undeclared work. As such, we advance the following hypothesis:

Previous personal behaviour (H1) – Youth previously receiving envelope wages during studentship are more likely to choose this payment practice for financial motives/gains (higher salary).

Another determinant of participation to noncompliant behaviours highly investigated in tax evasion literature is represented by *tax morality* (Horodnic, 2018). Commonly defined as “the intrinsic motivation to pay taxes” (Onu *et al.*, 2019; Torgler, 2005), tax morality comprises all the motivational factors that are not

monetary under its umbrella and are therefore not related to the expected utility maximization (Luttmer and Singhal, 2014). Indeed, previous studies conducted on general population concluded that there is a strong relationship between tax morality level and the participation in under-declared employment (Francic, 2019; Williams and Horodnic, 2015a,b,c) or other forms of undeclared work (Horodnic and Williams, 2019a; Windebank and Horodnic, 2017), tax evasion related behaviours (Brink and Porcano, 2016; Dell'Anno, 2009) or even shadow economy (Torgler and Schneider, 2007). Therefore, the following hypothesis is proposed:

Tax morality (H2) – Youth with lower tax morale are more likely to choose envelope wages for financial motives/gains (higher salary).

Moving to the factors related to the perception of the environment where the youth live and conduct their work, several previous explanations of noncompliant behaviour are explored. The most dominant explanation related to undeclared activities and tax evasion is rooted in the rational economic actor model, according to which a person will choose to engage in noncompliant behaviours as long as the gain for engaging in such activities is greater than the risk of getting caught and punished (i.e., the penalty) (Allingham and Sandmo, 1972). However, the evidence so far is not convincing. Whilst for some population groups and/or geographical regions, the results show that the deterrence measures reduce the participation in undeclared work (Feld and Frey, 2002; Kluge and Libman, 2017; Mazzolini *et al.*, 2017), other studies show little to no effects (Francic, 2019; Hartl *et al.*, 2015; Williams and Francic, 2016) or even argue that tougher deterrents increase participation in undeclared work (Hofmann *et al.*, 2017; Murphy and Harris, 2007) because it might reduce citizens' trust in their government (Horodnic and Williams, 2019a). Based on these findings, we advance the following hypothesis:

Deterrence measures (H3) – Youth expecting lower sanctions (*H3A*) and/or lower detection risk (*H3B*) are more likely to choose envelope wages for financial motives/gains (higher salary).

Beside the perceived or the actual level of deterrents applicable in a society, an important role in informing citizens' choices related to undeclared work practices is played by the behaviour of peers (i.e., the trust that other citizens display, a compliant behaviour). Indeed, it is expected that people are more likely to engage in noncompliant behaviours if they live in a society where undeclared work is widely spread. This is because they might become less concerned about the sanctions, both from state institutions (i.e., probability to get caught and sanctioned when caught) and from their fellow citizens (i.e., marginalization, shame etc.) and they might consider that everyone is a free-rider so why should they have a compliant behaviour (Horodnic and Williams, 2019a). Proving this purpose, previous studies, mostly based on experiments, showed that the choice for a noncompliant behaviour is influenced by the perception regarding the compliance of the other citizens within a society (Fellner *et al.*, 2013; Hallsworth *et al.*, 2017) and that people tend to comply as long as they consider that tax compliance is the social norm in their society (Alm, 2012; Alm *et al.*,

1999). Quite the opposite is the case when noncompliant behaviour is considered the social norm. Indeed, through an adaptation of an agent-based model, Ianole-Călin *et al.* (2017) show how a social contagion mechanism can explain the proliferation of undeclared work, as a result of internalizing a conventional social norm of noncompliant behaviour or a surrounding pattern of social behaviour. Furthermore, networks play a sizeable role in prompting peer effects, as it is revealed in different impactful behavioural interventions that incorporate social pressure into their design (Bobek *et al.*, 2013; Ianole, 2016; Onu and Oats, 2016). Indeed, when compliant behaviour is considered social norm, breaking this norm by choosing a noncompliant behaviour was shown to cause psychic stress (Dulleck *et al.*, 2016). Therefore, we propose the following hypothesis:

Peers' behaviour – social norm (H4) – Youth considering that working without/under- declaring income is a common practice (social norm) are more likely to choose envelope wages for financial motives/gains (higher salary).

Finally, previous studies show that in societies where citizens display a low level of trust in government and in the state's capacity, undeclared activities are deemed as acceptable and people are, therefore, more likely to engage in noncompliant behaviours (Williams, 2017). A significant stream of literature revealed a positive relationship between undeclared work and trust in authorities (Francic, 2017; Williams *et al.*, 2017) or, more particularly, in the institutions in charge with tackling undeclared work (i.e., tax authorities and labour inspection) (Horodnic and Williams, 2019b; Williams and Horodnic, 2020). Furthermore, experiments on noncompliant behaviours of Romanian citizens (as compared to citizens in Italy, Sweden, the UK and the US) revealed that, although Romanians display the highest willingness to pay taxes when presented with an ideal scenario, in reality, they do not comply due to the environment they live in, which they perceive as being characterized by a highly corrupted and inefficient tax system (Todor, 2018). This is further confirmed by a recent work on the relationship between state capacity and tolerance towards tax evasion in Romania which highlights that the perception of a weak state increases tolerance towards non-compliance (Vâlsan *et al.*, 2020). As such, we test for the following hypothesis:

Trust in Labour Inspectorate (in charge of supervising and enforcing compliance with labour law) (H5) – Youth tending not to trust the Labour Inspectorate are more likely to choose envelope wages for financial motives/gains (higher salary).

2. Data and methods

To analyse financial gains as a motive for choosing envelope wages amongst youth population, we use survey collected data. Given the sensitive topic, the instrument (questionnaire) was successively refined during 2 focus-groups and during a pilot study. Aiming to firstly build rapport with the respondent, the sensitive

questions were asked in later stages of the survey (e.g., the availability to get paid envelope wages for a higher salary). The questioned population comprised students from all public universities in Iasi, namely: “Alexandru Ioan Cuza” University of Iasi, “Gheorghe Asachi” Technical University of Iasi, “Grigore T. Popa” University of Medicine and Pharmacy, “Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iasi, “George Enescu” University of Arts Iasi/ Other. Considering that this city gathers students from the entire North Eastern region of Romania and beyond and being, therefore, the largest university centre in the area, Iasi is a suitable choice for investigating envelope wages amongst youth.

During April-June 2020, the survey was applied on 1,059 students (online basis), with a larger number of interviews (about 50% of the sample) being conducted with students of Alexandru Ioan Cuza University of Iasi. Indeed, the students enrolled with this university represent 46% of all students in public universities in Iasi (Romanian Government, 2019/2020). Overall, the sample was stratified by education field and also by faculty and university and comprised students from all faculties. Indeed, stratified samples have previously shown to produce reliable data in investigating informal economy (Williams, 2015). As such, with strata by education field and university close to the population structure, a robust sample for investigating youth motivation to accept an under-declared job was obtained.

For proposing a profile of the youth more likely to choose envelope wages for financial gains and for testing various theoretical explanations for doing so, the dependent variable is based on youth choice between the following options: a) to have a low income specified in the employment contract but, in reality, to receive a higher cash-in-hand income and b) to have all the income specified in the employment contract even if the net final income would be lower. Students' responses were coded in a dummy variable with value 1 for those choosing envelope wages for a higher salary and with value 0 for those choosing all the income specified in the employment contract, even if lower. For identifying students more likely to choose envelope wages for financial gains, various socio-demographic characteristics were analysed, such as: education field, the program of study, gender, marital status, financial situations and home area. For testing the hypotheses related to various theoretical explanations for choosing envelope wages (H1-H5), we used the following variables: students who work/have worked during studies and (did not receive) received envelope wages (for testing the role of previous personal behaviour), Tax Morality Index¹ (for testing the influence of tax morale), expected

¹ The index was obtained by averaging the score across 8 questions assessing the acceptability of various behaviours related with citizen's morality when it comes to paying taxes. These questions include the six questions used in the previous Eurobarometer surveys (please see European Commission, 2020) and two additional ones, namely: i) *Not declaring if in doubt about whether or not a certain source of income should be reported* and ii)

sanctions and detection risk for working without/under- declaring income (for testing the role of deterrence measures), estimated share of population working without/under- declaring income (for testing the influence of peers behaviour – social norm) and trust in the Labour Inspectorate in Romania (for testing the role of trust in public institutions in charge of supervising and enforcing compliance with labour law).

For analysing the data, we first used descriptive statistics and second, considering the nature of the dependent variable (dummy), a logistic regression analysis has been conducted. To show the reliability of the findings, an additive model is used (by adding in-turn independent variables) and two robustness checks are performed. The first one adds the university affiliation as a control while the second one uses multiple imputations for the missing values. Moreover, the regression model is used to graphically display the predicted probabilities to choose envelope wages for financial gains.

3. Results and discussion

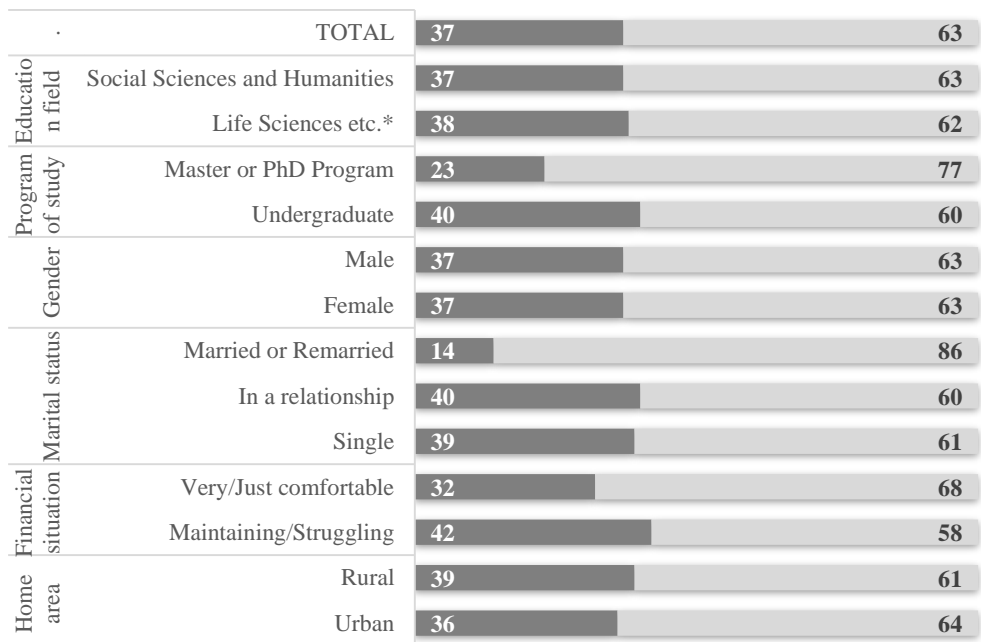
The survey revealed that 37% of students would choose to have a lower income specified in the employment contract for receiving a higher cash-in-hand income. This therefore suggests that an important share of highly educated youth population would choose, if given the chance, to get paid envelope wages for financial motives (e.g., a higher salary). As previously documented by Pfau-Effinger (2009), the student status offers full insurance (including medical) and thus they are less interested in performing fully declared work. When adding to this some possible financial gains (e.g., a higher salary), almost 4 out of 10 students would choose to get paid envelope wages.

However, the percentage of students who would choose envelope wages for financial gains varies by some socio-economic characteristics, outlying a youth profile of those more likely to choose a noncompliant behaviour. As Figure 1 reveals, a higher cash-in-hand income is more attractive for undergraduate students than for those enrolled in a master or PhD programme. Indeed, 40% of undergraduate students would choose to get paid envelope wages and only 23% of those enrolled in a master or PhD programme would choose to do so for financial gains. Similarly, single students or those in a relationship are more likely to choose envelope wages for financial gains than those married or remarried (39% and 40% compared to 14%). Moreover, when considering their financial status, students describing their financial situation as very comfortable or even just comfortable do not find the idea of a higher cash-in-hand income so appealing if paid envelope wages. As such, 42% of those maintaining or struggling with financial issues would choose to get paid envelope

Interpreting the ambiguous or grey areas of the tax and labour law to one`s own advantage. A higher index represents a higher tax morale.

wages for financial gains and only 32% of those having a very comfortable or even just comfortable financial situation would make such a choice. This rather provides support to the marginalization theory according to which employers target weaker and vulnerable groups because they are more likely to accept such an arrangement (Williams and Padmore, 2013). Figure 1 also shows that there are no notable differences by education field, gender and home area when choosing to get paid envelope wages for a higher cash-in-hand income.

Figure 1. Envelope wages for financial motives/gains, by socio-economic characteristics (N=1,059)

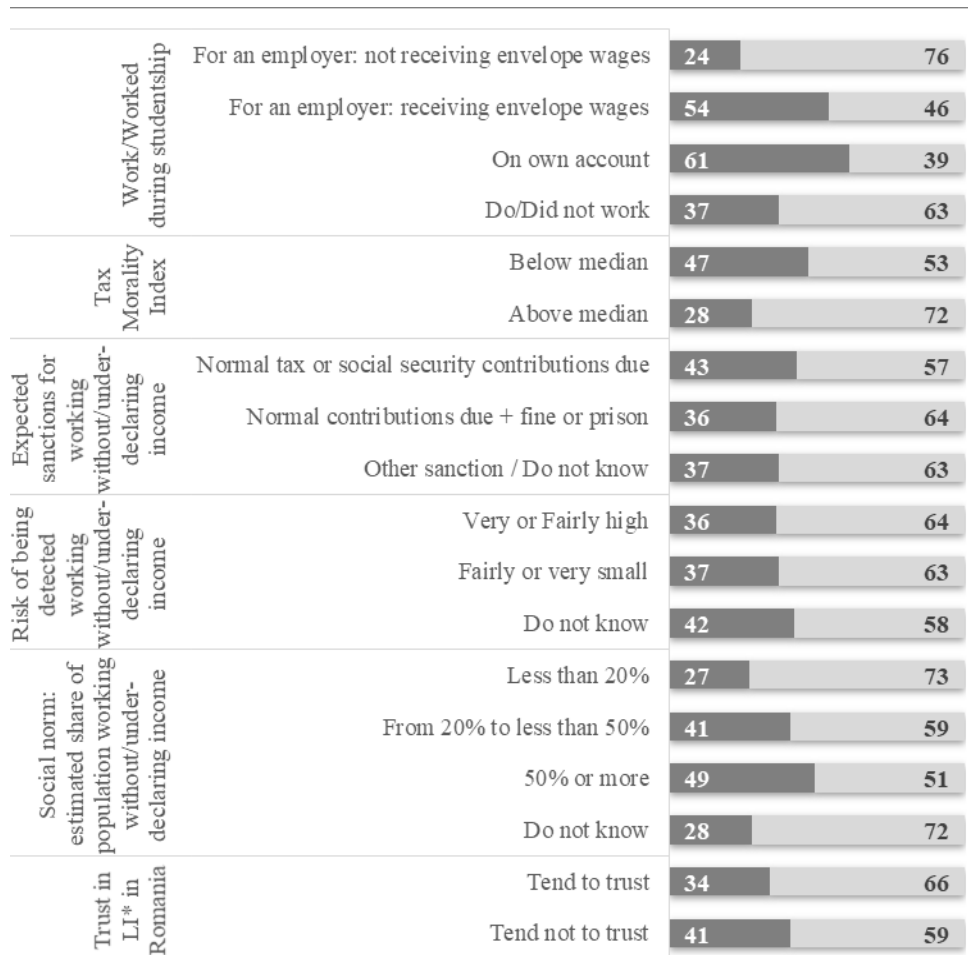


■ Having a low income specified in the employment contract but in reality to receive a higher cash-in-hand income

Note: *Refusal* excluded; *Do not know* kept only where relevant; * Life Sciences, Physical Sciences and Engineering.

Source: author's representation

Turning to theoretical approaches explaining participation in under-declared employment, Figure 2 displays descriptive statistics for each analysed theoretical explanation.

Figure 2. Envelope wages for financial motives/gains, by theoretical explanation (N=1,059)

- Having a low income specified in the employment contract but in reality to receive a higher cash-in-hand income
- Having all the income specified in the employment contract even if the net final income will be lower

Notes: *Refusal* excluded; *Do not know* kept only where relevant; * Labour Inspectorate.

Source: author's representation

Examining the results in Figure 2, the finding is that students previously working for an employer without receiving envelope wages are less likely to choose envelope wages for financial gains (24%) than those previously working for an employer and receiving envelope wages (54%), those working on their own account

(61%) or those without work experience (37%). The same is valid for those with a higher tax morale (Tax Morality Index above median, 28%), who are less likely to choose envelope wages for a higher cash-in-hand income than those with a lower tax morale (Tax Morality Index below median, 47%). Similarly, those who expect only the regular contributions due when caught working without/under-declaring income (43%), those that estimate that more than 50% of total population is working without/under-declaring income (49%) and those who tend not to trust the Labour Inspectorate in Romania (41%), the institution in charge of supervising and enforcing compliance with labour law are more likely to choose envelope wages for a higher cash-in-hand income. Figure 2 also reveals no notable differences in choosing envelope wages by the risk of being detected. Whether the findings of these descriptive statistics are significant when other variables are included in the analysis needs to be tested.

In order to determine whether the association between the decision to choose envelope wages for financial gains and students' socio-economic characteristics is significant while keeping other variables constant and to test the previous potential explanations for the propensity to choose envelope wages for financial gains (hypotheses *H1-H5*), we report in Table 1 the findings obtained by using a logistic regression.

Table 1 includes four additive models (Models 1 to 4) and two robustness analyses (Models 5 and 6). The first stage model explores the youth profile more likely to choose envelope wages for financial gains based on socio-demographic characteristics, while the second stage model additionally analyses previous personal behaviour of the students (*H1*) and their tax morality (*H2*), the third stage model adds deterrence measures (*H3*), and the fourth stage model adds peers' behaviour and trust in Labour Inspectorate in Romania to examine their influence on students' decision to choose envelope wages for a higher cash-in-hand income.

Model 1 in Table 1 shows that some student groups are more likely than others to choose envelope wages for a higher salary. Undergraduate students are significantly more likely to choose this payment arrangement than master or PhD students. Similarly, unmarried students are significantly more likely to choose envelope wages for a higher salary when compared to married or remarried students and so are those facing financial difficulties than those not having financial issues. However, no statistically significant relationship is found between youth propensity to choose envelope wages and field of study, gender and home area. These statistically significant associations identified in Model 1 remain valid when adding supplementary variables in Models 2-4 or when running robustness checks in Models 5 and 6. These results therefore outline a profile of highly educated youths more likely to choose envelope wages if receiving a higher salary namely, unmarried undergraduate students with a difficult financial situation.

When analysing previous personal behaviour and students' tax morality in Model 2, the finding is that, as compared to those previously working for an

employer without receiving envelope wages, students working during studies for an employer and receiving envelope wages are significantly more likely to choose this payment practice for financial motives/gains (confirming *H1*), as are those working on their own account or without working experience. Similarly, students with lower tax morale are significantly more likely to choose envelope wages for a higher cash-in-hand income (confirming *H2*).

When deterrence measures are added in Model 3 (expected sanctions and risk of being detected), no association is found with the propensity to choose envelope wages for financial gains (refuting hypotheses *H3A* and *H3B*). Model 4 in Table 1 adds peers' behaviour and trust in Labour Inspectorate variables. Indeed, the finding is that those estimating a high share of people working without/under-declaring income (20% or more) are significantly more likely to choose envelope wages for financial gains than those considering that compliant behaviour is the social norm and only a small share of population would engage in such behaviour (confirming *H4*). Similarly, Model 4 reveals that the likelihood to choose envelope wages for financial gains is higher when not trusting the public institution in charge of supervising and enforcing compliance with labour law (confirming *H5*).

These results are further confirmed by the two robustness checks in Models 5 and 6 in Table 1. As such, Model 4 is first re-run by controlling for university affiliation (Model 5) and second by using multiple imputations for the missing values (Model 6). Indeed, the associations identified in the robustness check analysis remain unchanged, showing the reliability of the findings.

To make it easier to interpret the findings, Figure 3 graphically displays the relationship between the decision to choose envelope wages for financial gains and the variables examining various theoretical explanations and found to be statistically significant in Model 4 in Table 1. Predicted probabilities to choose envelope wages for financial motives (adjusted predictions with 95% CIs) are computed after Model 4 in Table 1 and displayed in Figure 3 for a "representative" student (considering mean or modal values for the independent variables, as in other studies; e.g., Horodnic *et al.*, 2018).

Table 1. Youth propensity to choose envelope wages for financial motives/gains – logistic regression

	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
	β	se(β)	β	se(β)	β	se(β)	β	se(β)	β	se(β)	β	se(β)
Education field (CG: Social Sciences and Humanities)												
Life Sciences etc. ¹⁾	-0.073	0.145	-0.128	0.154	-0.148	0.157	-0.185	0.165	-0.371	0.457	-0.096	0.152
Programme of study (CG: Master or PhD Programme)												
Undergraduate	0.711 ***	0.248	0.644 **	0.267	0.595 **	0.268	0.656 **	0.279	0.625 **	0.282	0.645 **	0.263
Gender (CG: Male)												
Female	-0.067	0.158	0.088	0.170	0.112	0.174	0.145	0.180	0.067	0.186	0.143	0.166
Marital status (CG: Married or Remarried)												
In a relationship	1.239 ***	0.346	1.243 ***	0.363	1.247 ***	0.367	1.313 ***	0.376	1.348 ***	0.378	1.339 ***	0.365
Single	1.150 ***	0.350	1.086 ***	0.368	1.103 ***	0.371	1.226 ***	0.380	1.274 ***	0.382	1.256 ***	0.371
Financial situation (CG: Very/Just comfortable)												
Maintaining/Struggling	0.503 ***	0.146	0.419 ***	0.154	0.413 ***	0.157	0.341 **	0.163	0.357 **	0.164	0.356 **	0.150
Home area (CG: Rural)												
Urban	-0.043	0.144	-0.100	0.153	-0.051	0.154	-0.092	0.162	-0.109	0.164	-0.104	0.153
Work/Worked during studentship (CG: For an employer: not receiving envelope wages)												
For an employer: receiving envelope wages		1.226 ***	0.265	1.258 ***	0.268	1.246 ***	0.277	1.245 ***	0.278	1.125 ***	0.259	
On their own account		1.626 ***	0.319	1.537 ***	0.325	1.636 ***	0.344	1.674 ***	0.348	1.515 ***	0.315	
Do/Did not work		0.490 **	0.195	0.486 **	0.197	0.446 **	0.203	0.430 **	0.204	0.390 **	0.190	
Tax Morality Index			-0.298 ***	0.053	-0.310 ***	0.054	-0.291 ***	0.056	-0.289 ***	0.056	-0.301 ***	0.051
Expected sanctions for working without/under- declaring income (CG: Normal tax or social security contributions due)												
Normal tax or social security contributions due + fine or prison					-0.139	0.230	-0.135	0.238	-0.111	0.237	-0.099	0.225
Other sanction / Do not know					-0.167	0.313	-0.066	0.326	-0.053	0.327	-0.139	0.306
Risk of being detected working without/under- declaring income (CG: Very or Fairly high)												
Fairly or very small					0.100	0.166	0.047	0.176	0.001	0.179	0.023	0.163
Do not know					0.347	0.357	0.540	0.378	0.521	0.380	0.257	0.315

Social norm: estimated share of population working without/under- declaring income (CG: Less than 20%)													
From 20% to less than 50%								0.475 **	0.197	0.473 **	0.197	0.502 ***	0.183
50% or more								0.617 **	0.287	0.637 **	0.288	0.595 **	0.273
Do not know								-0.641	0.423	-0.614	0.424	-0.276	0.372
Trust in Labour Inspectorate in Romania (CG: Tend to trust)													
Tend not to trust								0.330 **	0.165	0.336 **	0.166	0.301 *	0.158
Constant	-2.443 ***	0.419	-0.642	0.597	-0.493	0.639	-1.176 *	0.683	-1.138 *	0.690	-1.127 *	0.651	
LR chi2		43.41		125.86		124.94		142.36		146.79			--
Prob. > chi2		0.000		0.000		0.000		0.000		0.000			--
Observations		879		874		860		819		819			1,059
Imputations		--		--		--		--		--			100

Notes:

All coefficients are compared to the comparison group (shown in parenthesis).

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$

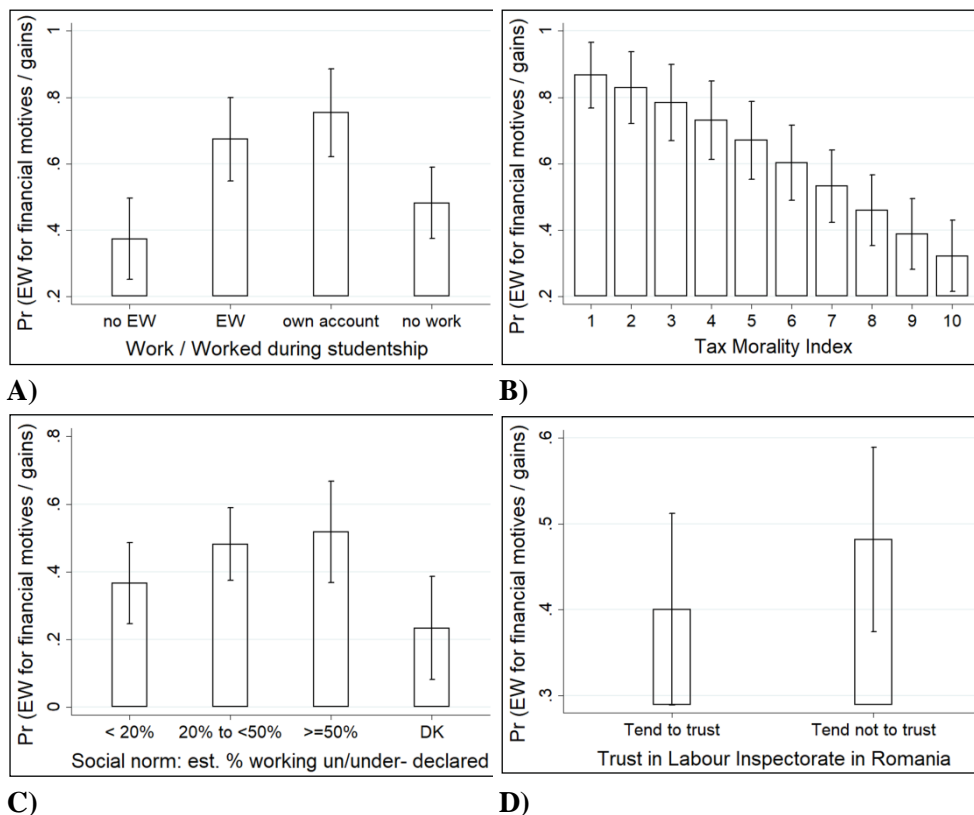
¹⁾ Life Sciences, Physical Sciences and Engineering.

²⁾ Robustness check A: controls for university affiliation (“Alexandru Ioan Cuza” University of Iasi, “Gheorghe Asachi” Technical University of Iasi, “Grigore T. Popa” University of Medicine and Pharmacy, “Ion Ionescu de la Brad” University of Agricultural Sciences and Veterinary Medicine of Iasi, “George Enescu” University of Arts Iasi / Other).

³⁾ Robustness check B: imputed data: 100 imputations; Missing data report: Preference to receive envelope wages for financial gains (dependent variable) – 125, Education field – 0, Program of study – 0, Gender – 23, Marital status – 36, Financial situation – 38, Home area – 20, Work/Worked during studentship – 6, Tax Morality Index – 7, Expected sanctions for working without/under- declaring income – 21, Risk of being detected working without/under- declaring income – 6, Social norm: Estimated share of population working without/under- declaring income – 2, Trust in Labour Inspectorate in Romania – 73.

Source: authors’ calculations based on collected survey data

Figure 3. Predicted probability to choose envelope wages for financial motives/ gains (adjusted predictions with 95% CIs)



Notes: Predicted probabilities calculated after Model 4 in Table 3 for a ‘representative’ youth in the sample (considering mean or modal values for other independent variables).
 Source: author’s representation

Figure 3A clearly reveals how students working during their studies for an employer and receiving envelope wages or working on their own account have higher predicted odds to choose envelope wages for a higher salary than those previously working for an employer but not receiving envelope wages or those not having any work experience at all. Previous personal behaviour therefore plays an important role in choosing to get paid envelope wages for a higher cash-in-hand income. Moreover, as graphically displayed in Figure 3B, as Tax Morality Index increases (higher tax morale), the predicted probability of the representative student to choose envelope wages if given the chance becomes smaller. Similarly, as students estimate a higher share of population working without/under- declaring

income, the predicted odds that they would choose envelope wages for financial motives becomes higher. Finally, the graph in Figure 3D reveals how students tending not to trust the Labour Inspectorate have higher predicted odds to choose envelope wages for a higher cash-in-hand income. As such, the graphs in Figure 3 further confirm *H1*, *H2*, *H4* and *H5*. A summary with the confirmed or refuted hypotheses can be consulted in Table 2.

Table 2. Confirmed hypotheses

Hypothesis	Results
<i>H1</i> <i>Previous personal behaviour</i> – Youth previously receiving envelope wages during studentship are more likely to choose this payment practice for financial motives/gains (higher salary).	Confirmed
<i>H2</i> <i>Tax morality</i> – Youth with a lower tax morale are more likely to choose envelope wages for financial motives/gains (higher salary).	Confirmed
<i>H3</i> <i>Deterrence measures</i> – Youth expecting lower sanctions (<i>H3A</i>) and/or lower detection risk (<i>H3B</i>) are more likely to choose envelope wages for financial motives/gains (higher salary).	Not confirmed
<i>H4</i> <i>Peers behaviour – social norm</i> – Youth considering that working without/under - declaring income is a common practice are more likely to choose envelope wages for financial motives/gains (higher salary).	Confirmed
<i>H5</i> <i>Trust in Labour Inspectorate</i> (in charge of supervising and enforcing compliance with labour law) – Youth tending not to trust the Labour Inspectorate are more likely to choose envelope wages for financial motives/gains (higher salary).	Confirmed

Source: author's representation

Conclusions

The paper advances the current understanding of the reasons for participation in envelope wage practices by focusing on youth behaviour. The findings show that, as in the case of tax compliance, the rational actor approach is of limited relevance in explaining youth's acceptance or even preference for envelope wages: deterrence measures do not have a significant impact on the analysed decision. This is in line with previous studies investigating the envelope wages practice (Williams and Franic, 2016; Williams and Horodnic, 2017). Meanwhile, the previous personal behaviour, social norms, the low level of trust in the official authority on labour practices represent strong predictors and push the behaviour in the informal register. These findings are indicative for how the institutional actor approach combined with

behavioural and social influences can provide better insights for mitigating undeclared work.

The current research enriches the general literature on undeclared work at a methodological level by providing a new instrument for conducting micro-survey able to capture at a deeper level the complex and hidden nature of the informal practice of envelope wages. Indeed, unlike the previous surveys that ask the employed persons whether or not they receive envelope wages from their employer (e.g., European Commission, 2020), the instrument used here asks the students to make a choice considering a real scenario, namely the fact that an employer has a limited budget for a specific job. Using this approach, the behaviour of the respondents can be better analysed by excluding the biases that might occur due to the employer's power of negotiation in deciding on a working contract (i.e., this practice can be imposed by the employer giving no option to the employee). Indeed, a pilot study conducted with students in Moldova and Romania from just one faculty in the business field from Alexandru Ioan Cuza University of Iasi shows that there are differences regarding the acceptability of this practice before and after being employed (i.e. after the negotiation/ external motivation factors and constraints occurred) (Horodnic and Williams, 2017). Naturally, the instrument has the inherent limitations common to this type of survey, marked by the impact of social desirability bias and potentially dishonest behaviour. However, an extension of the study on other population groups as well as in other regions of Romania and in other Eastern European countries may be of use in order to assess a certain level of consistency. Future research could also investigate in more depth the non-monetary factors, which influence the choice of accepting or even preferring envelope wages.

At a practical level, the study offers numerous insights for informing evidence-based policies in Romania in the sensitive area of undeclared economy and envelope wages practice. Tackling the issue from an early stage, as reflected in the behaviour of student population, is of crucial importance to ensure the efficiency of later interventions. Ignoring this link may prove detrimental given the existing studies pointing that ethical education and moral sensitivity are correlated to a lower level of acceptance of different forms of dishonesty, from academic cheating to fraud and deviant workplace behaviour (Druica *et al.*, 2019). As such, policy makers should pursue a more holistic approach and one way to do that is by including, alongside the deterrent measures, some policy measures aimed at changing the attitude against this noncompliant behaviour and at fostering the trust in other citizens as well as in the authorities in charge with tackling undeclared work (Williams, 2017). Indeed, previous studies show that a perceived lack of trust in the fairness and/or effectiveness of authorities and formal institutions encourage dishonest behaviour because it informs citizens about the social norms and the behaviour of other citizens (Sønderskov and Dinesen, 2015). Therefore, educational and awareness campaigns (often used by authorities; Luca *et al.*, 2018) aimed at changing the youth's attitude towards envelope wages could be pursued by the

governments. Thus, the youth (as well as other vulnerable groups) would become more aware of the benefits of declared work and the importance of a compliant behaviour in improving the public goods and services received by the citizens (Eurofound, 2013). Currently, steps are taken into this direction. For example, an awareness campaign about the benefits of declared work was led and founded by the European Commission and the Labour Authority and took place between March and October 2020 at the EU level. Also, the authorities could limit sending messages that reduce the citizens' trust in their peers (e.g., by providing amnesties displaying that noncompliant behaviour is acceptable in some cases, or by over-disseminating the high level of noncompliant behaviour in a society) (Alm and Torgler, 2011; Jiminez and Iyer, 2016) and enhance the trust in authorities by improving the quality of governance (Autio and Fu, 2015).

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