

# Nonstandard Forms of Employment in Developing Countries

A Study for a Set of Selected Countries in Latin America  
and the Caribbean and Europe and Central Asia

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## Abstract

The objective of this paper is to study the evolution of the incidence and profile of nonstandard workers in selected countries in Latin America and the Caribbean and Europe and Central Asia in the past two decades. The analysis of the profile of this group of workers focuses on three key characteristics that could approximate their productivity: education level, labor income, and task content (manual/cognitive or routine/nonroutine) performed by the workers in their occupations. While in Latin America most of the countries show a stable prevalence in recent decades, in Europe and Central Asia there is not any common pattern across countries. In contrast, from the point of view

of the profile of nonstable employment, there are several common characteristics among these types of workers across countries, such as improved level of education, performance of more intensive nonroutine cognitive tasks, and higher variance of labor income. The findings suggest that nonstandard workers are a heterogeneous group. The increase in the incidence of nonstandard employment and its heterogeneity generates concern about the lower level of insurance against certain risks that workers face. Therefore, a greater understanding of the trends in the prevalence and characteristics of nonstandard workers is needed to design regulation and policies oriented to these types of workers.

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# Nonstandard Forms of Employment in Developing Countries: A Study for a Set of Selected Countries in Latin America and the Caribbean and Europe and Central Asia<sup>1</sup>

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## 1. Introduction

In general, the laws that regulate employment have been directed towards a particular type of work characterized by being continuous, full-time and which is part of a direct and subordinate relationship between an employee and his or her employer. This is commonly referred to as a "standard" employment relationship. This kind of labor agreement usually has significant benefits valued by workers, such as health care coverage, contributions to the pension system, training programs, and job stability, among others. Employers also perceive and value certain advantages granted by this type of labor relationship: a stable workforce for their company which enables the alignment of interests among all the members of the productive process, the retention of talents and skills of their workers and the possibility of managing the combination of tasks that their employees must perform as part of the production process.

However, in recent decades, in both industrialized and developing countries, there has been a shift from so-called standard employment to a more flexible form of employment, commonly called "non-standard form of employment" (ILO, 2016). Although there is no conventional definition, all labor relationships that differ from standard employment are part of this category. In particular, it is possible to include four major types of non-standard labor relationship: i) temporary work, ii) part-time work, iv) triangular work, and v) disguised employment relationships and dependent self-employment. This definition does not include independent and self-employed workers.

In developing countries, non-standard workers have always formed a significant part of the workforce, characterized by low productivity and informality. However, in the last decades, non-standard employment has advanced in segments of the labor market previously associated with traditional forms of employment. Among the causes that have facilitated the expansion of employment based on a more flexible relationship, we can include the technological change process the world is going through, especially the advancement of digital communication and a greater globalization, which demand the search for greater labor flexibility, and therefore lower cost, by firms, among others. In this context, it is possible to expect an increase in this type of employment in the future, although with a greater degree of heterogeneity, while technological progress allows many tasks that traditionally needed to be performed in the productive unit, will now be able to be carried out remotely. In this way, workers could coexist by performing tasks of low productivity with others of high productivity.

The growth of this type of labor relationship has generated a concern from the point of view of the lower level of insurance against certain risks that workers face, such as illness, accidents at work, unemployment, and retirement. In this sense, these contractual agreements do not offer workers the same level of protection as those provided to workers in standard employment. This poses a challenge for social protection systems, not only because of the increase in the number of workers without coverage but also because of the possible heterogeneity, which can be generated within this group of workers, which may imply the design of differentiated risk protection schemes according to productivity.

In this context, the objective of this paper is to analyze the evolution of the profile of non-standard workers in some countries of Latin America and the Caribbean and also of Europe and Central Asia, in terms of three key characteristics that could approximate their level of productivity: the educational level, the labor income and the content of tasks (manual/cognitive, routine/non-routine) performed by the workers in their occupations. The period considered is from the middle/end of the 1990s or beginning of the 2000s, subject to the available information, and the most recent year.

In a scenario of technological change and a greater possibility of changing traditional forms of work, the particular objective of this paper is to identify a change in the degree of heterogeneity, in terms of its productivity within this group of workers.

In the following section, we discuss the analytical framework that will guide the present study. Next, the sources of information are presented. The fourth section analyzes the main results found, by region: Latin America and the Caribbean and Europe and Central Asia. Finally, some conclusions and the challenges for public policy are presented.

## 2. Conceptual framework

### 2.1 Definition of non-standard employment

Although there is not any formal definition of non-standard employment, it is possible to group in this category all labor relationships different from the standard ones, that is, continuous, full-time jobs, which are part of a subordinate and direct relationship between an employer and an employee. In this sense, four broad categories that could be part of the so-called Non-Standard Employment (NSE) are identified:

- **Temporary employment** is identified when workers are hired for a specific period of time, which includes fixed-term contracts, contracts per project, as well as seasonal work. In many countries, fixed-term contracts are regulated by specific legal provisions in terms of their maximum duration, the number of renewals and the valid reasons for their implementation. Casual work is the engagement of workers on a very short-term or on an occasional and intermittent basis, often for a specific number of hours, days or weeks, in return for a wage set by the terms of the daily or periodic work agreement. In developing countries, especially in Latin America, this type of employment contract is an outstanding feature of informal salaried employment, although it has also emerged more recently in industrialized economies, particularly in jobs associated with “on-demand”, “platform” or “gig” economy.
- **Part-time employment** is defined as employment in which workers must work fewer hours than comparable workers in a full-time job. For statistical purposes, this kind of employment is usually considered as working fewer than 35 hours, or 30 hours, per week – while in a full-time job a worker works at least 45 hours per week (Bastelaer et al., 1997). In some cases, work agreements can define a very limited number of hours or even none, and therefore the employer is not required to provide a certain number of working hours. These agreements, known as “on-call work”, are subject to different contractual forms depending on the country and include the so-called “zero hours” contracts (ILO, 2016). In part-time employment, the number of working hours is lower than those worked by a worker in a comparable job. Many countries have very specific legal thresholds that define the number of hours that a part-time worker must perform, and in general, this is related to full-time employment.
- **Triangular agency work** takes place when workers are not directly employed by the company in which they provide their services, and if they are employed they are paid by a temporary employment agency. Workers who are not directly employed by the company they serve can perform work under contractual agreements that involve multiple parties, such as a private employment agency and a user company. In general, the agency and the worker maintain an employment relationship, while the agency and the user firm sign a commercial contract. Although in general there is no employment relationship between workers in temporary

employment agencies and user companies, some jurisdictions impose legal obligations on user companies against workers, especially with regard to health and safety at work.

- **Disguised employment** is an appearance that is different from the underlying reality, with the intention of attenuating the obligations established by law. These may involve hiring a worker in a commercial or cooperative contract instead of an employment contract and at the same time directing and supervising the work activity in a way that is incompatible with the independent status that the worker maintains.

Ambiguous labor relations may arise when the rights and obligations concerning the parties involved are not clear or when there are deficiencies in the legislation, including with regard to the interpretation of legal provisions and their application. An area that sometimes lacks legal clarity is dependent self-employment, where workers provide services for a company under a civil or commercial contract, but they depend on one or a small number of clients for their income and receive direct instructions referred to the tasks to develop. In general, independent self-employed workers are not covered by the provisions of labor or social security laws, although several countries have adopted specific provisions to extend some protection to them.<sup>4</sup>

## 2.2 Possible factors that affect non-standard employment trends

The literature proposes different arguments through which the decision to work and hire workers in any of the non-standard ways is justified. From the perspective of the decision made by the worker, the choice to participate in the labor market through a non-standard contractual relationship is defined by two dimensions: preferences and restrictions.

From the point of view of preferences, it is possible to argue that workers who choose to work through a non-standard employment relationship are attracted by the characteristics of that employment relationship. Kunda et al. (2002) analyze occupational choice from the perspective of a free agent, where a small number of highly qualified experts choose to work outside the conventional arrangements in order to obtain a set of benefits that include greater financial rewards, control over their working conditions and lifestyle.

These are generally associated with examples of highly qualified professionals; whose services are in demand. On the other hand, in addition to the attraction of greater profits and the desire for a better work-life balance, the move to self-employment could also be part of a response to the perception that traditional benefits (promotion and security) are no longer available in the standard labor relationship, which form flattened structures without any promise of long-term job security (Walker, 2011).

On the other hand, an alternative view suggests that people are forced to work in some of the non-standard forms of employment due to the absence of a better alternative. The growth of the number of self-employed and temporary workers in some cases may be the result of layoffs by large companies that immediately made subcontracting agreements. The new non-standard workers are

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<sup>4</sup>For instance, Austria, Canada, Germany, Spain, Italy and the UK have specifically regulated dependent self-employment or quasi-subordinate work, extending some labor protection to the workers involved. However, the level of protection and even the definition of dependent self-employment vary significantly, with some jurisdictions focusing on economic dependency (for example, Austria, Canada, Germany and Spain) and others having regard instead to the worker's strict coordination with the principal business organization (Italy and the United Kingdom). See ILO, 2015 for more details.

mostly economic refugees who cannot find a standard job. As such, they are marginalized, treated as strangers and exploited by organizations. The negative aspects of non-standard work include job insecurity, low and variable levels of compensation, loss of unpaid benefits and training activities. Workers in these situations are often dissatisfied and would prefer to return to be a typical standard employee (Kirkpatrick and Hoque, 2006).

From the perspective of the demand for employment, it is possible to identify several factors that define the decision to hire employees through some of the non-standard ways. In general, all of them are associated with the search for lower production costs and greater flexibility to adapt to the context. Firms value non-standard employment for the lower costs that this implies not only in terms of wages but also in terms of other benefits such as the granting of vacation periods, contributions to social security or the payment of compensation (Nesheim et al., 2007 and von Hippel et al., 1997).

Following Maurizio (2015), the reasons that motivate the demand for non-standard employment are diverse and their importance varies substantially among countries. Among them it is possible to highlight four major causes: i) changes in the economic structure and, therefore, in the employment of economies, moving from primary and industrial production to an economy based on the production of services; ii) the greater degree of globalization in international trade, which exposes firms to greater competition and therefore to the need to seek gains in productive efficiency; iii) the macroeconomic context, particularly the degree of economic volatility, affects employment hiring decisions in a non-standard manner, while granting greater flexibility to adapt to economic cycles; and iv) the process of technological change favors the generation of labor relations at a distance, especially in those sectors where the inputs or intermediate goods that are exchanged are of a digital nature.

The structural changes in the economy, that is, those radical changes in the relative importance of each branch of activity in the economy, have implications for the level and composition of employment. In this sense, the transition from an economy based on industrial production to one based on the services sector could drive the increase in non-standard employment. In the services sector, peak demands can be more frequent and less predictable than in the manufacturing sector, which gives firms a greater pressure to ensure certain flexibility in the production process. As an example, the tourism sector has clear characteristics that favor non-standard employment. In particular, it is characterized by a high degree of fragmentation in the provision of services, global chains, and franchises, high seasonality in demand and the need to provide services outside the usual hours of the working day.

On the other hand, the expansion of globalization in international trade is a factor that encourages the search for more flexible forms of labor relations. A greater degree of exposure to international competition generates clear incentives in the search for mechanisms to reduce average production costs, while favoring a greater fragmentation of the productive process in order to exploit the dynamic comparative advantages, culminating in an acceleration of trade of intermediate goods and expansion of global supply chains. In this context, many firms find incentives to use non-standard employment agreements, as they are often cheaper due to lower wage and non-wage costs.

The macroeconomic context, including economic crises and growth volatility, also can affect the share of non-standard arrangements in total employment. Depending on the regulatory framework of each country, in a context of economic slowdown, it is possible to observe an increase in non-standard employment. In effect, employment is not usually a variable sensitive to short-term macroeconomic shocks, that is to say to the business cycle, while it is the number of working hours that is the variable through which the level of production is adjusted to the cycles of demand.

In an environment of economic slowdown, temporary workers are the most exposed to the risk of being dismissed. According to ILO (2016) for example, during the 2008-2009 recession in the United States, despite constituting less than 2% of the total labor force, temporary workers accounted for 10.6% of net employment losses. Likewise, in Spain, temporary employment fell from 29% in 2008 to 22% in 2013 as a result of the economic crisis.

In this same vein, the temporary reduction of the number of working hours is another way of adapting to the macroeconomic context. Firms, instead of firing workers, try to reorganize their workforce internally by reducing working hours, thus maintaining a greater proportion of part-time labor. For instance, in Argentina, the level of employment is inelastic compared to cyclical shocks on GDP, while it is the number of working hours that is the variable that acts as an adjustment (Apella, 2016). In this sense, companies find it more efficient to adjust the number of work hours during economic cycles instead of reorganizing the combination of productive factors.

Likewise, the economic volatility, which generates uncertainty in the medium term, could encourage companies to increase the participation of non-standard employment. Worry about economic conditions after a recession can make companies more cautious about hiring, which generates temporary forms of recruitment.

Finally, the process of technological change, especially the development of digital communications, is a key factor in justifying new forms of non-standard employment. The expansion of services and global supply chains is inextricably linked to technological advances. The new information technologies, the higher quality and the lower cost of infrastructure and the logistical and transport improvements, allow companies to compare, organize and manage production in a more diversified way in territorial terms. At the same time, new communication technologies have allowed the generation of new forms of work, such as work on internet platforms or work on demand through digital applications.

In this sense, technological developments allow companies to assemble teams of workers who develop activities in any part of the world through a virtual network (Brews and Tucci, 2004). The most recent development of online recruitment services, such as "eLance" and "oDesk" enables the search for workers who can be subcontracted, performing their activities in virtual mode.

### 3. Sources of information

This work includes a descriptive analysis that allows us to identify how the prevalence of non-standard employment (NSE) has evolved in the last two decades in different regions of the planet, as well as the evolution of the profile of workers in those roles, in terms of their educational level, salary per hour, and type of tasks performed.

This analysis was based mainly on periodic surveys of households that included information regarding the employment and educational situation of individuals. Although the denomination of this type of surveys varies from country to country, in all the cases analyzed there is usually a survey of annual or higher frequency that includes information required to identify the labor status of the individuals as well as to analyze the salary profile and education of the employed.

However, it should be noted that the identification of the type of work relationship (standard or non-standard) is frequently limited in these data sources. Indeed, it is only possible to identify part-time employment and temporary employment (not in all cases) within the non-standard forms of employment mentioned in the previous section.

In this sense, it is necessary to draw attention to the fact that the non-standard employment statistics presented below are not homogeneous among countries. In countries where both forms of non-standard employment were identified, we define non-standard employment as those occupations that satisfy at least one of the conditions, that is, either corresponds to a part-time occupation or a temporary job. In countries where temporary employment was not identified in the data, our non-standard employment category will coincide with part-time employment. Note that in either case, as other non-standard employment modalities are not identified, the indicators presented in this paper indicate a lower level with respect to the true dimension of the phenomenon.

The only aspect addressed that required the use of additional information was the analysis linked to the profile of tasks that are developed in the framework of non-standard jobs. To carry out this analysis, the information available in the O\*NET (Occupational Information Network) database was used in conjunction with the Household surveys. This database provides information referring to the content of tasks of the occupations. Since 2003, O\*NET data have been collected in the United States for approximately 1,000 occupations based on the Standard Occupational Classification (SOC), and it has been updated periodically from then until 2014.<sup>5</sup>

Following Acemoglu and Autor (2011), Hardy et al. (2015) and Apella and Zunino (2017), five measures of content or intensity of main tasks performed by workers are constructed: non-routine cognitive analytical and interpersonal, routine cognitive and manual and non-routine manual. The definition of the type of task performed by the worker is associated with the risk of automation and therefore its implication in terms of earned wage. While routine, and especially manual, are susceptible of automation, those non-routine tasks, especially cognitive tasks (both analytical and interpersonal) not only are not exposed to the risk of automation but also could be complemented by automation, increasing the productivity of the workers.

## 4. NSE trends in Latin America and the Caribbean and Europe and Central Asia

As was mentioned in the previous section, the available data sources limit the statistical analysis presented below to two types of NSE: temporary employment and part-time employment. At the same time, it was not possible in all cases to identify the employees whose employment relationship is temporary. In this sense, it is necessary to take into consideration that all indicators of prevalence of NSE and its profile will be limited to a subset of this kind of workers.

### 4.1 Latin America and the Caribbean

This section focuses on the Latin America and the Caribbean region, where a set of 9 countries, that we consider representing the different realities of the region in an exhaustive way, was analyzed. Specifically, the analysis was conducted for Argentina, Brazil, Bolivia, Chile, El Salvador, Mexico, Peru, Dominican Republic and Uruguay.

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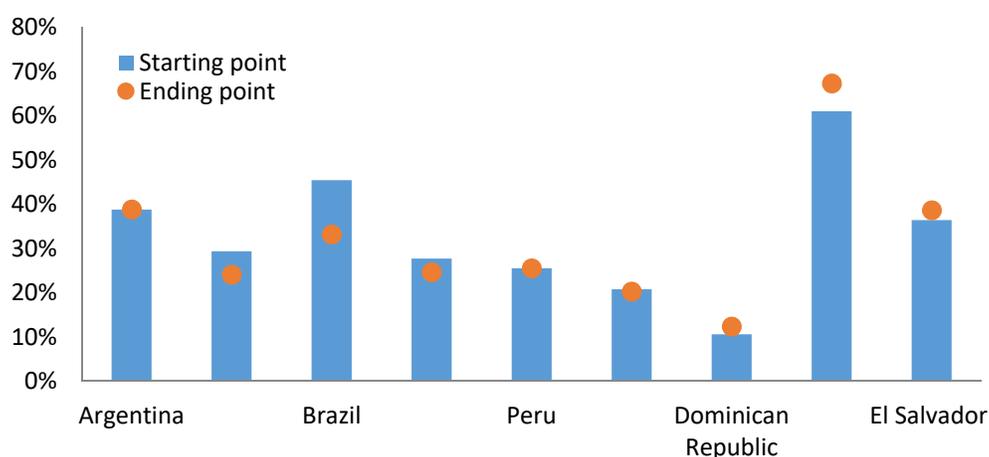
<sup>5</sup>O\*NET is the successor of DOT (Dictionary of Occupational Titles) which is no longer updated. O\*NET was launched in 1998 on the basis of the BLS Occupational Employment Statistics codes. In 2003, it was changed to SOC which implies that the consistent measures of task content are calculated from 2003.

In the 9 cases mentioned, it was possible to identify part-time workers, while temporary workers were only identified in the cases of Argentina, Brazil, Chile, Mexico and El Salvador.

#### 4.1.1 Variation of the NSE as a percentage of total employment

The prevalence of NSE in the total employment has not shown very significant variations in the countries considered in the last two decades (Figure 1). Indeed, most of the countries analyzed show non-standard employment registers similar to those observed in the mid-1990s. The exceptions where the variation is a little more relevant are Brazil and Uruguay, where there are contractions in the incidence of the NSE of the order of 10 and 5 percentage points respectively and Mexico, where there is an increase of 5 percentage points.

Figure 1: Prevalence of NSE among salaried employees. (Mid-90s/Mid-2010s)

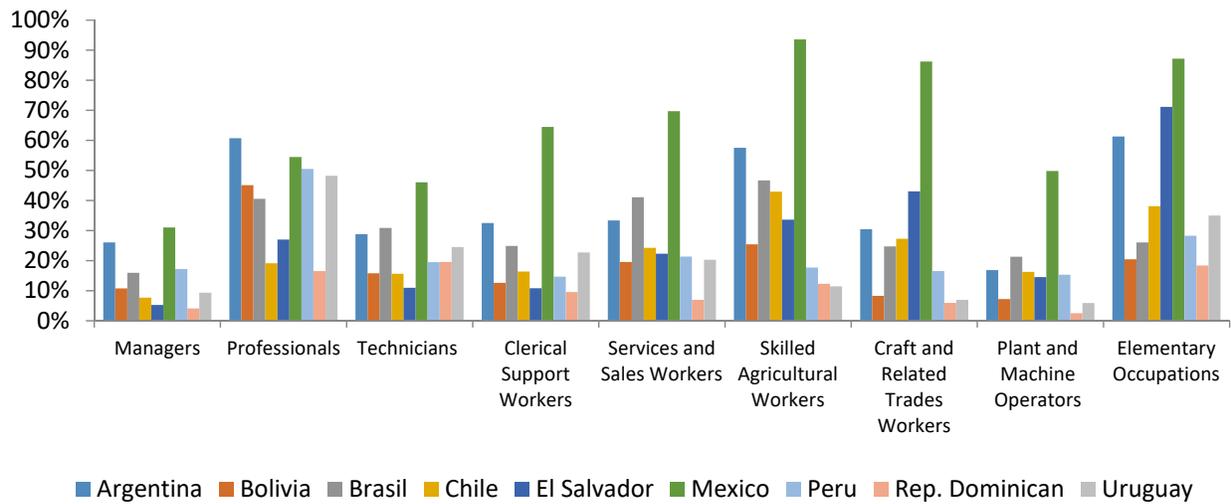


Source: Own calculations based on Household surveys

Analyzing the prevalence of NSE by types of occupations, considering the ISCO classification at one digit, we find a quite similar pattern across countries. Indeed, in most of the considered countries, the “Elementary Occupations” are the category where the prevalence of NSE is higher. The “Professionals” and “Skilled agricultural, forestry and fishery workers” are also types of occupations characterized by a higher prevalence of NSE. On the other hand, the categories of “Managers”, “Technicians” and “Plant and machine operators and assemblers” are the types of occupations with a lower incidence of NSE in the region (see Figure 2).

The observed distribution of the prevalence of NSE among types of occupations suggests a strong heterogeneity across non-standard employees. Actually, the productivity and task profile of professionals and elementary workers, as we will discuss later in this paper, are very different, even though both types of occupations are characterized by a higher prevalence of non-standard employment arrangements. It is important to highlight that the distribution of NSE among categories of occupations does not present a significant change in the considered period. Annex II presents the prevalence of NSE by categories of occupations for the starting point of the analysis.

Figure 2: Prevalence of NSE by categories of occupations ISCO. (Mid-2010s)



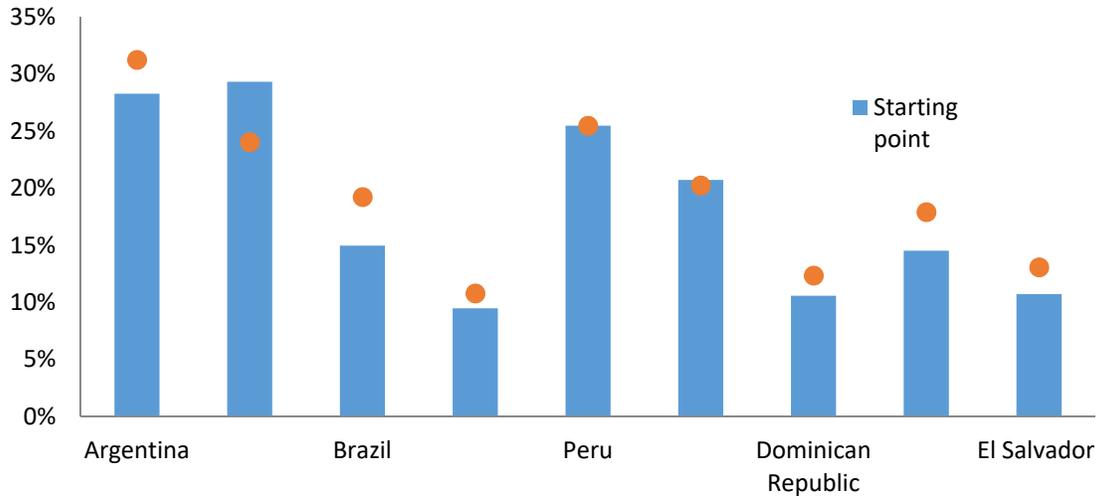
Source: Own calculations based on Household surveys

When these results are analyzed by the type of NSE, we find significant differences between the trends in Part-time and Temporary employment.

On the one hand, there is a stable or growing prevalence of part-time employment among the salaried employees, where Uruguay is the only exception, characterized by a decrease in the incidence of this type of employment (Figure 3). In the cases of Peru and Bolivia, we find almost the same prevalence of part-time employment as two decades ago while in the remaining countries (Argentina, Brazil, Chile, Mexico, El Salvador and the Dominican Republic) there is a greater prevalence of part-time employment.

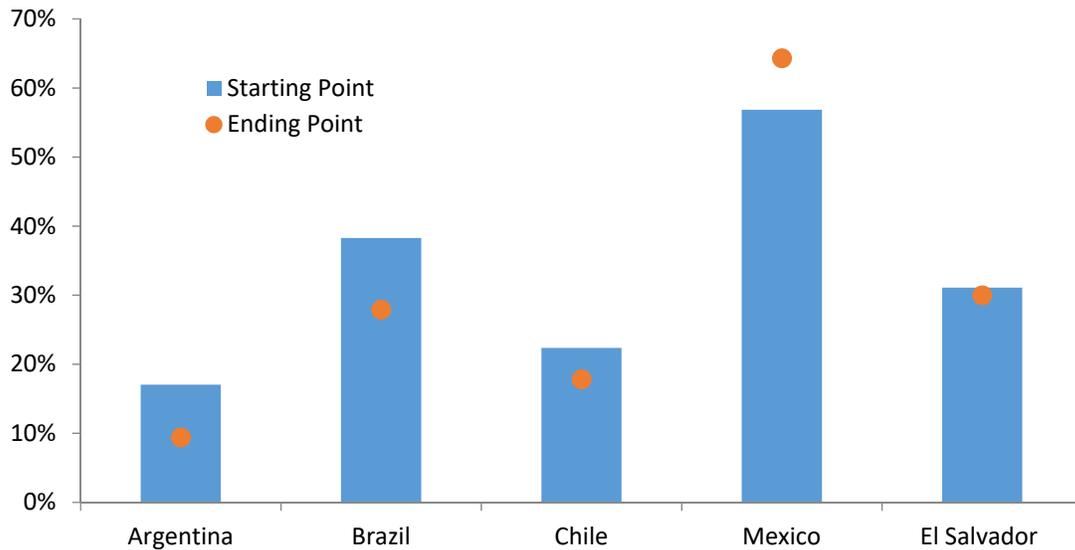
Likewise, the prevalence of temporary employment shows a downward trend in most of the analyzed countries in the last 20 years (Figure 4). In fact, three of the five countries in which temporary employment could be identified show a significant drop in the prevalence of this type of employment (Argentina, Brazil, and Chile). El Salvador presents a stable incidence of temporary employment, while Mexico is the only country in our sample for which there is an increase in this type of NSE.

Figure 3: Prevalence of Part-time employment among salaried employees. (Mid-90s/Mid-2010s)



Source: Own calculations based on Household surveys

Figure 4: Prevalence of Temporary employment among salaried employees (Mid-90s/Mid-2010s)



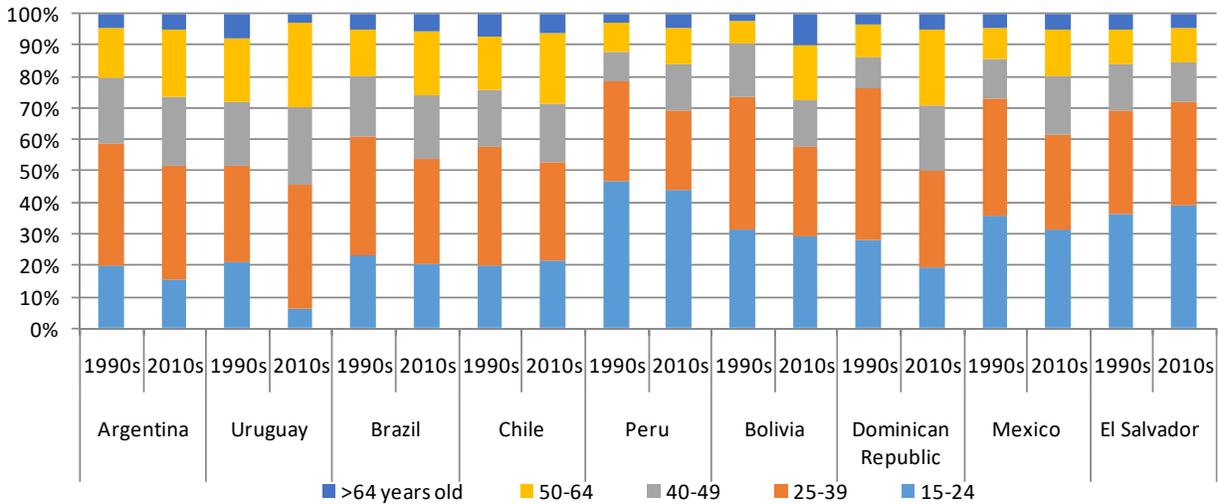
Source: Own calculations based on Household surveys

Analyzing the evolution of non-standard employment according to their age profile, we found a slight increase in the share of the older groups (Figure 5 and 6). This slight aging in the profile of non-standard workers is observed in both part-time and temporary employment. This finding is striking since, in principle, it was expected that the non-standard modalities of employment would show an increasing participation of the younger groups of the population. However, this change in the age composition of NSE is consistent with the age profile observed in total employment. In fact, the

mean age of the labor force rises 2.8 years on average for the set of countries included in the study. That is, the older profile of NSE workers reflects the older profile of the overall labor force.

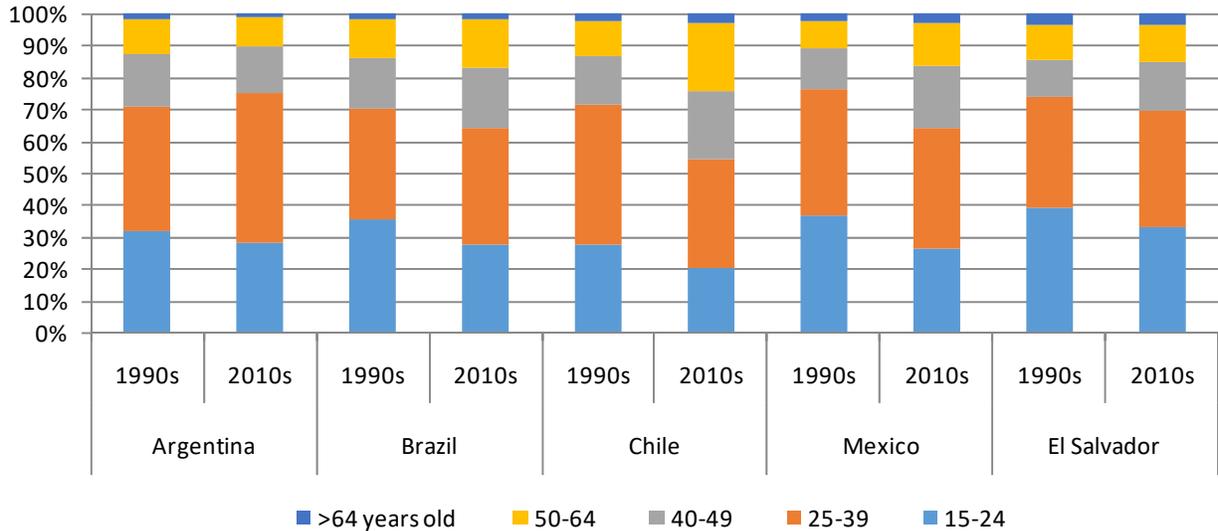
From the gender point of view (Figure 7 and 8), the picture seems to be more heterogeneous, particularly in the case of part-time employment, where there are several countries in which the gender profile of non-standard employees remains almost constant in the last two decades (Argentina, Brazil, Bolivia, Mexico), while other countries show a growing female participation (Uruguay, Chile, Peru, Dominican Republic and El Salvador). As in the case of the age profile, the growing female participation is a phenomenon consistent with the trend in the overall employment. Indeed, in the considered period, there is an observed a rise in female participation in the total employment of 3.9 percentage points on average. Statistics among the age and gender profile for total employment are included in the Annex II of the paper.

Figure 5: Part-time employment by age group. (Mid-1990s/Mid-2010s)



Source: Own calculations based on Household surveys

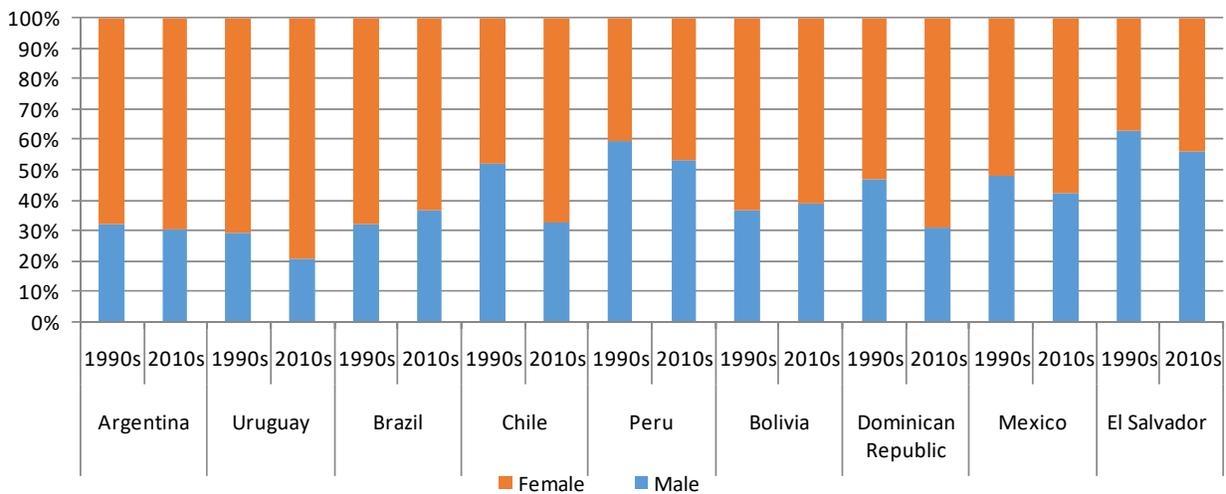
Figure 6: Temporary employment by age group. (Mid-1990s/Mid-2010s)



Source: Own calculations based on Household surveys.

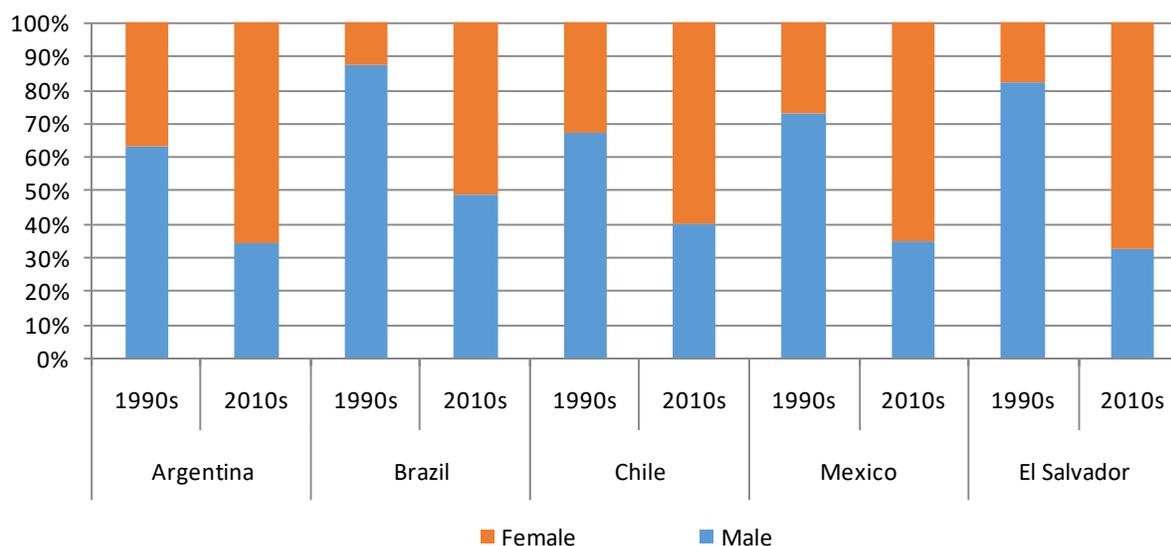
In the case of temporary employment, there is evidence of increasing female participation in the five countries analyzed, with large variations in several cases. Indeed, in the five countries for which we identified temporary workers, while temporary employment was predominantly male in the 1990s, today women show a participation higher than 50% in all cases.

Figure 7: Temporary employment by age group. (Mid-1990s/Mid-2010s) employment by gender (Mid-1990s/Mid-2010s)



Source: Own calculations based on Household surveys

Figure 8: Temporary employment by gender. (Mid-1990s/Mid-2010s)



Source: Own calculations based on Household surveys

#### 4.1.2 Profile of Non-Standard Employment

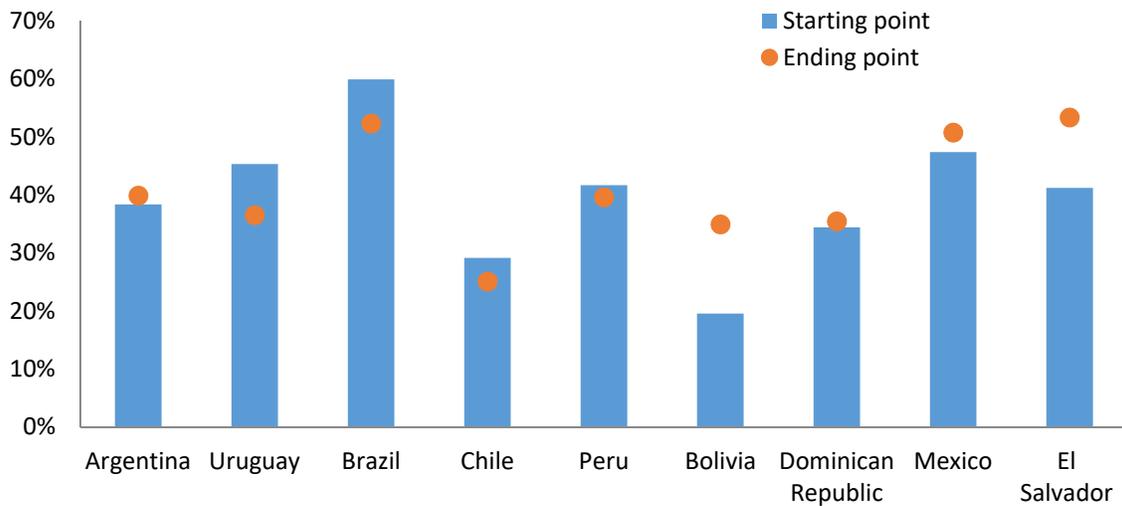
The next objective of this work is to investigate possible changes in the profile of non-standard employment, usually associated with lower productivity and greater vulnerability. The analysis of the employment profile was made based on access to social security benefits, education level, labor income and the task content performed by the workers.

From the point of view of social security, we find that NSE shows a higher prevalence of informality compared with SE. For instance, the average prevalence of informality for our set of countries among NSE in the ending point of the study is 40% while the prevalence among SE is 20%. In this sense, a rise in the prevalence of NSE could be associated to a big set of workers without access to social security benefits.

From a dynamic perspective, there is no a common trend across countries regarding the prevalence of informality among NSE workers (Figure 9). Indeed, several countries (Uruguay, Brazil, Chile, and Peru) registered a small decrease in the prevalence of informality among NSE but there is another set of countries for which the opposite is observed (Mexico, El Salvador, Bolivia and Argentina).

It is important to note that the changes in the prevalence of informality among SE workers between the starting and ending point of the study show a very similar dynamic compared with the observed dynamic for NSE (the prevalence of informality among SE workers is presented in the Annex II of the paper). Then, the trend in the prevalence of informality among NSE mainly reflects the overall trend of informality in the labor market instead of a specific characteristic of NSE.

Figure 9: Prevalence of informality among NSE workers. (Mid-1990s/Mid-2010s)

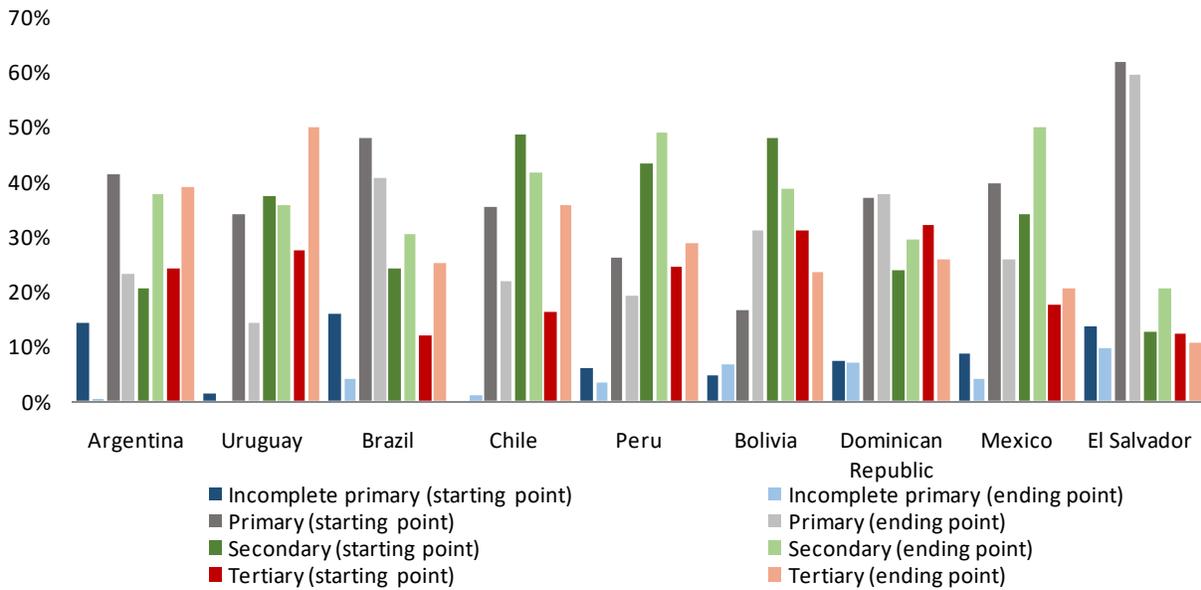


Source: Own calculations based on Household surveys

From the education perspective, an improvement in the profile of workers employed as NSE can be observed in the countries analyzed, even though there are some exceptions. In fact, in most of the countries of our sample, the prevalence of workers with secondary and tertiary education increases in detriment of workers with a lower educational level. However, there are some differences by type of non-standard employment.

In the case of part-time employment (Figure 10), several countries show an obvious rise in the prevalence of workers with secondary and tertiary education (Argentina, Brazil, Peru, and Mexico). There is a second group of countries that presents a decrease in the prevalence of workers at the secondary level, but, this decrease is more than compensated by the greater incidence of tertiary workers, so that, taken together, workers with secondary or higher education increased their share within part-time employees (Uruguay and Chile). Therefore, we can also conclude from this group that part-time employment presents a better educational profile today than two decades ago. In the Dominican Republic and El Salvador, we find a rise in the prevalence of workers with secondary education but a decrease in the share of workers at the tertiary level. Finally, the exception is Bolivia where both workers with secondary and tertiary education evidence a lower participation in part-time employment with respect to the 1990s.

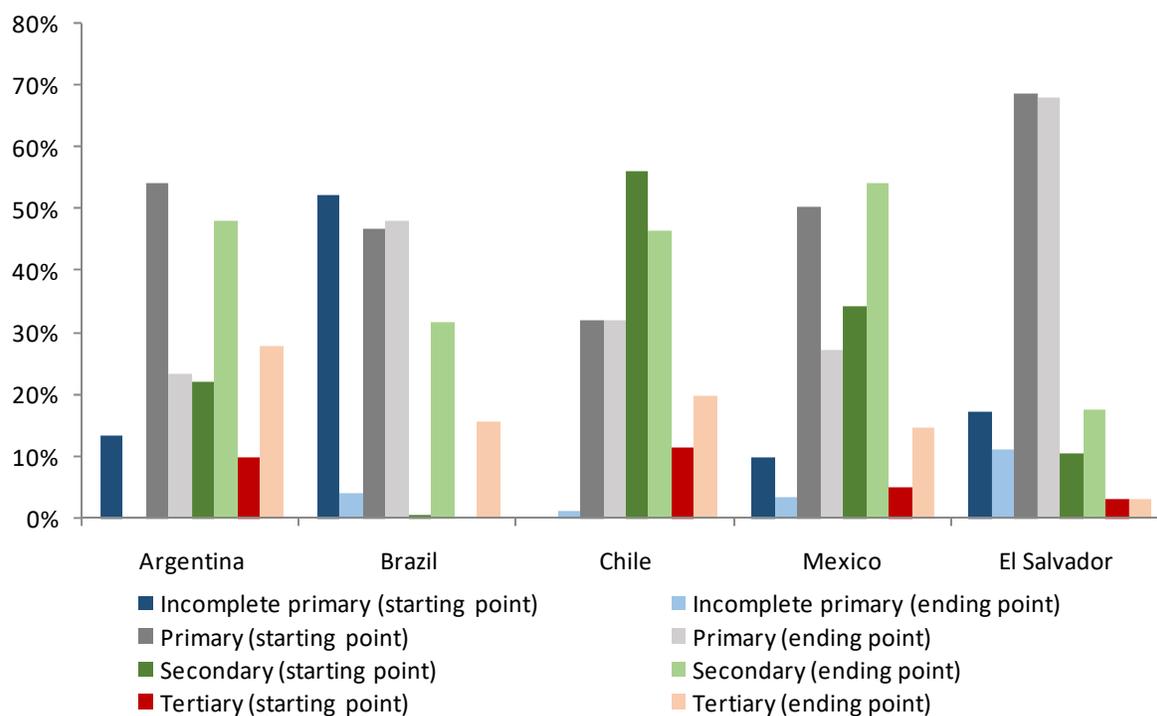
Figure 10: Education profile of Part-time employees. (Mid-1990s/Mid-2010s)



Source: Own calculations based on Household surveys

On the other hand, in the case of temporary employment, the improvement of the educational profile is more evident and generalized than in part-time employment (Figure 10). In fact, in all the cases in which temporary employment was identified, taken together, the share of workers at the secondary or higher education increased in proportion in the last two decades. The countries in which the improvements in the education profile are less deep are Chile, where the participation of workers with secondary education decreased in the last two decades, even though this decrease is more than compensated by the greater proportion of tertiary workers, and El Salvador, where the share of workers with tertiary education remains almost constant.

Figure 11: Education profile of Temporary employees. (Mid-1990s/Mid-2010s)



Source: Own calculations based on Household surveys

However, it should be noted that the improvement of the educational profile of workers is a generalized trend in the countries considered and cannot be considered a specific characteristic of non-standard employment since it is also observed in standard wage employment and self-employed workers. Statistics regarding the educational profile of standard employees are included in Annex II of the paper.

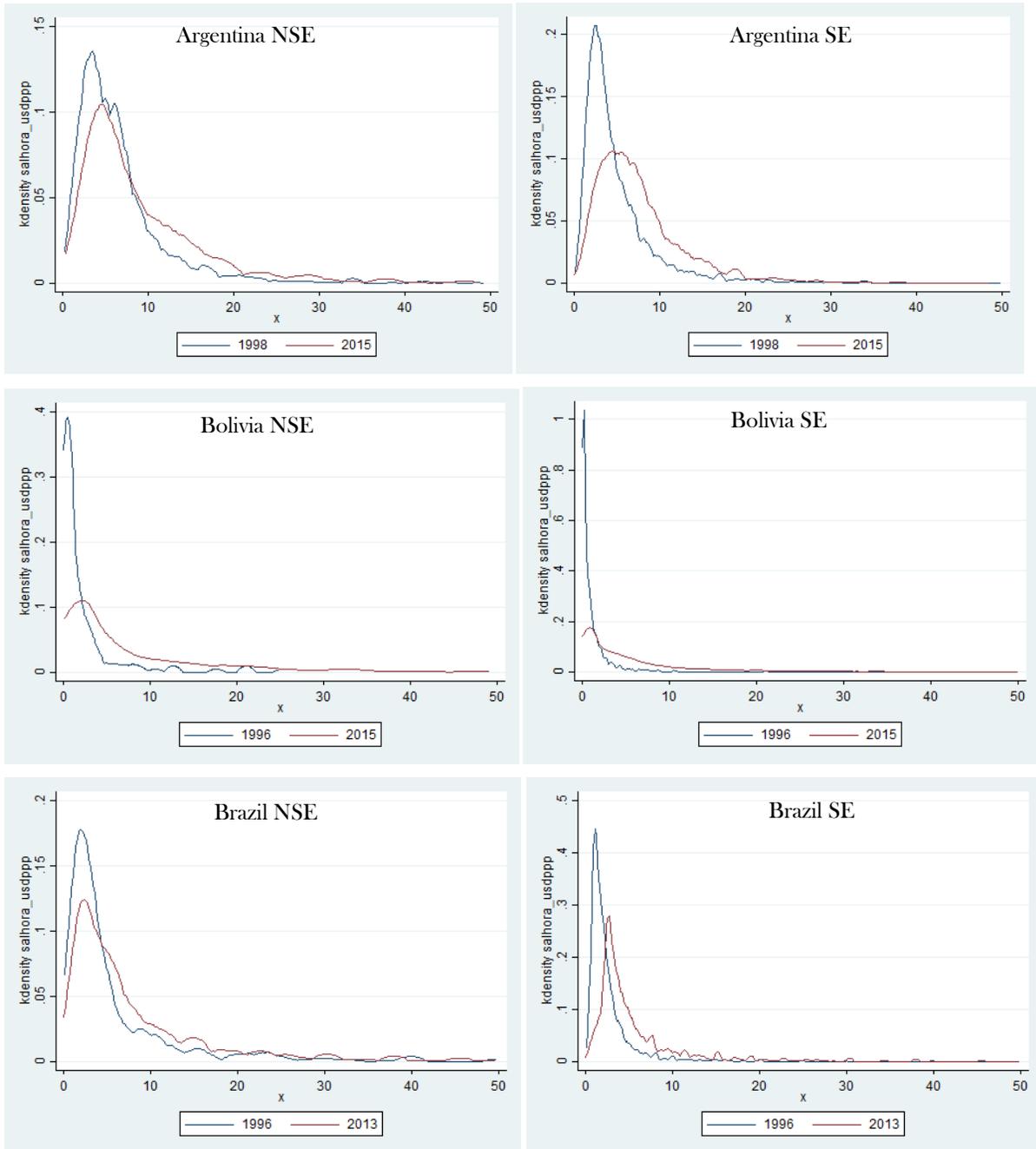
Figure 12 presents the Kernel distribution of the labor income per working hour by country and type of employment. When we analyze what has happened at the salary level and distribution in the period under analysis, two important conclusions emerge. On the one hand, a shift to the right of the wage distribution is observed in all the countries analyzed, indicating an increase in their average. This growth in wages is simply a consequence of the economic growth experienced by these economies. Note that this average wage increase is also observed in the counterpart of standard employment in all cases.<sup>6</sup>

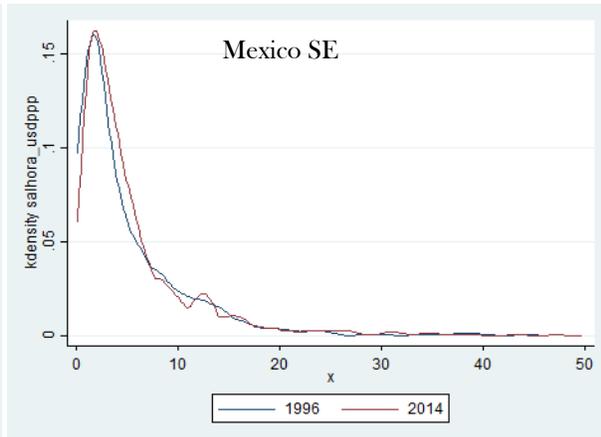
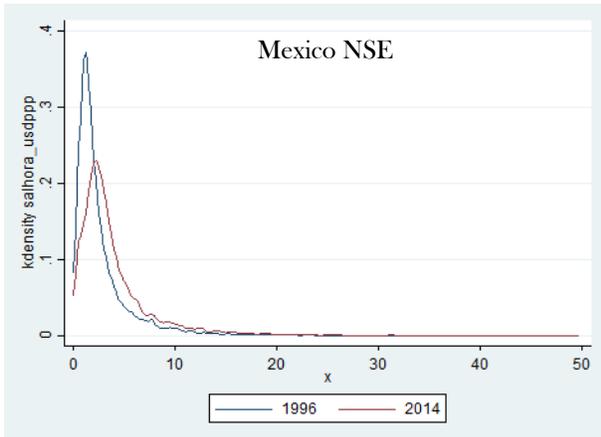
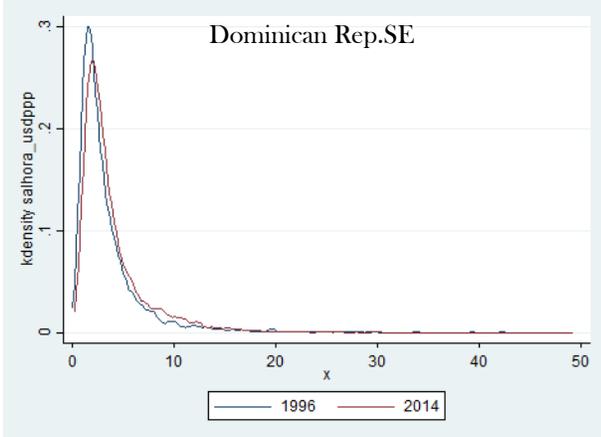
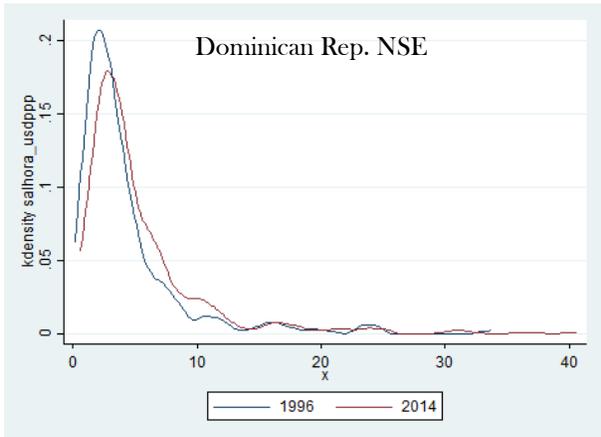
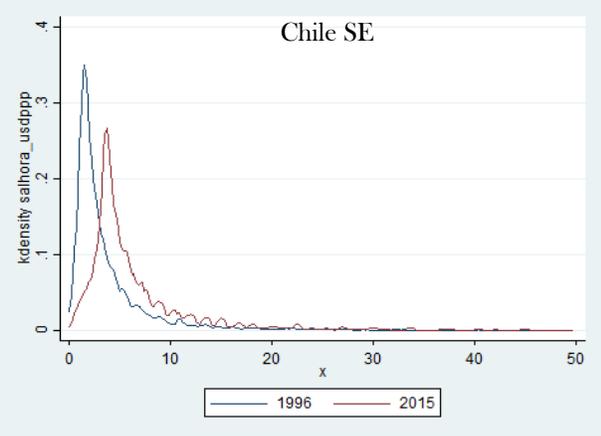
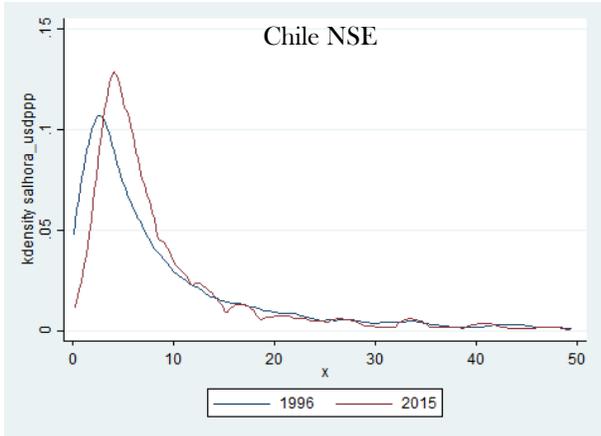
The second trend identified as generalized in the countries of study is the increase in the variance of the wage distribution. In fact, in most of the countries considered, non-standard employment wages currently show a significantly greater dispersion than that registered a decade ago. The only two exceptions are Chile and Peru in which the variance of the wage distribution of NSE shows a small decrease.

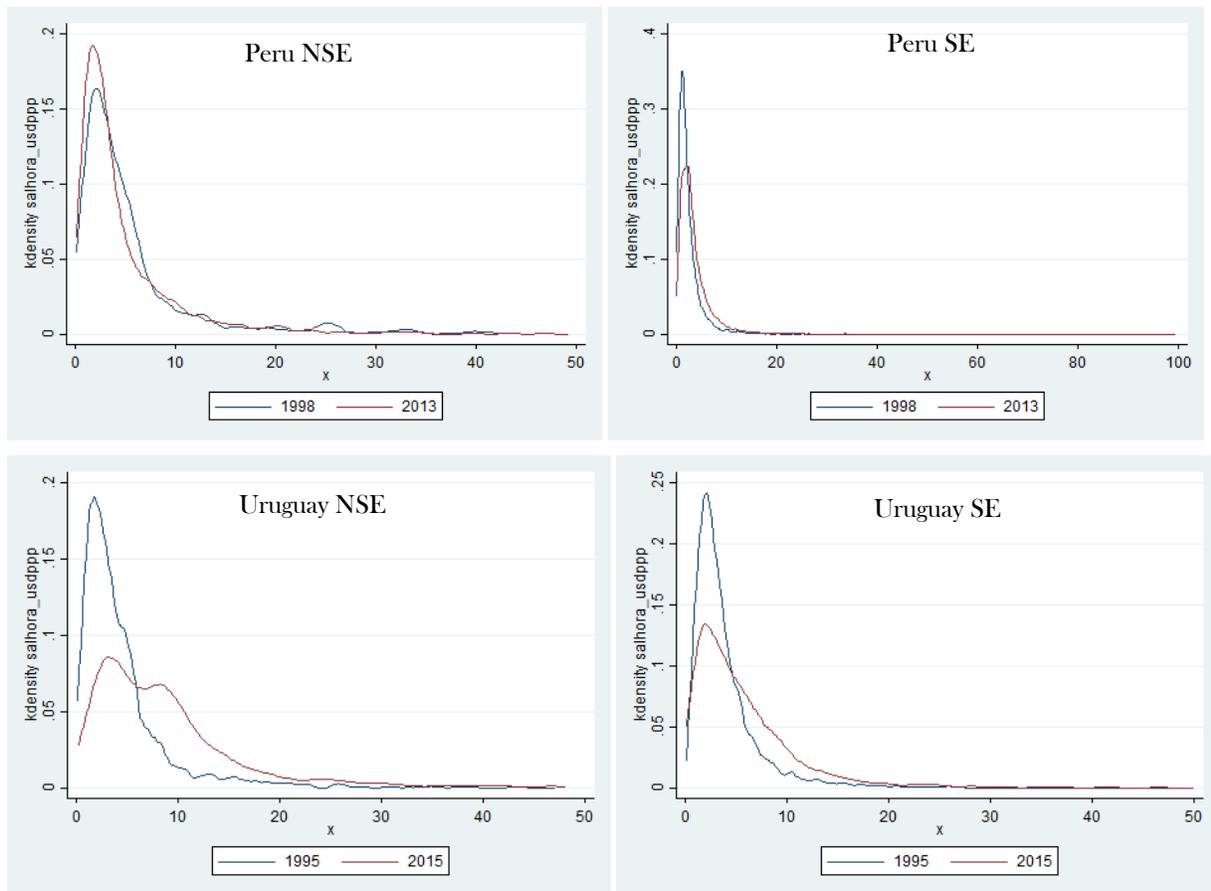
<sup>6</sup>As mentioned above, standard employment is calculated as the total number of employees who do not identify with any of the non-standard categories (temporary or part-time). However, since there are non-standard forms of employment not identified in the database, our standard employment category could, in fact, incorporate non-standard workers.

However, as in the case of the educational profile, the trends observed in the wage distribution do not seem to be a specific characteristic of non-standard employment, but rather could be considered a global trend of the labor market which also includes the standard employees. In fact, Figure 12 presents also the wage distribution of standard employment which generally shows a pattern of behavior very similar to that registered by the non-standard one (in the first column).

Figure 12: Wage distributions for Non-standard and Standard employees. Selected countries. (Mid-1990s/Mid-2010s)







Source: Own calculations based on Household surveys

Finally, we analyze the trends in the task content performed by non-standard workers following the task methodology following the methodology proposed by Acemoglu and Autor (2011). Figure 13 presents the variation in the task content index by non-standard workers vis-a-vis standard workers.

A first general view suggests that non-routine cognitive task content of jobs (both analytical and interpersonal) increased in both NSE and SE even though we have some exceptions. Indeed, the only countries where non-standard employment shows a less intense profile in non-routine cognitive analytical tasks are Peru and the Dominican Republic. Additionally, Chile and El Salvador show a virtually null change in the intensity of this kind of tasks. In the case of standard employment, the change in the profile towards non-routine cognitive analytical tasks is even more obvious (the Dominican Republic is the only exception).

A similar scenario is recorded in the case of the intensity of non-routine cognitive interpersonal tasks, even though in this case the trend is more pronounced in both, standard and non-standard employment. Additionally, the trends in SE and NSE are more correlated for this type of tasks.

The evolution of the intensity in the routine cognitive tasks in the last two decades in NSE presents a much more heterogeneous picture. On the one hand, several countries show a virtually null change in the intensity of routine cognitive tasks in the period (Brazil, Mexico, El Salvador). The second group of countries which includes Argentina, Chile Peru, Bolivia and the Dominican Republic, show

a small decrease in the intensity of this kind of tasks. Finally, Uruguay is the only country in which NSE displays a profile more intensive today in routine cognitive tasks.

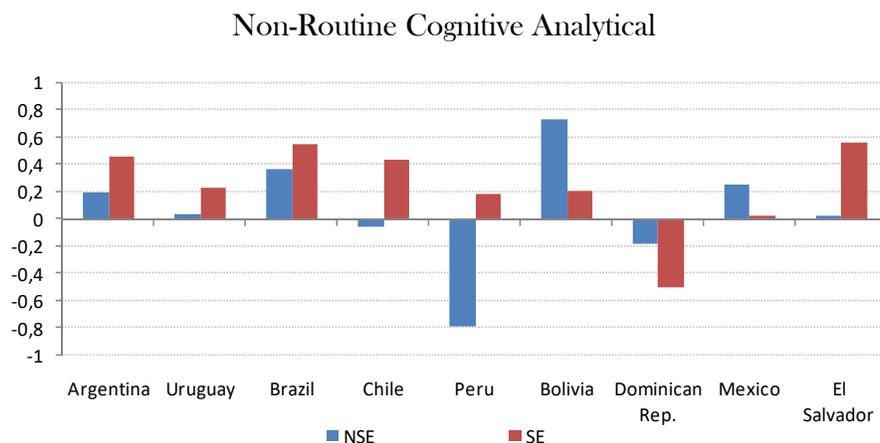
Additionally, in the case of the content of routine cognitive tasks, there is no general pattern in the labor market observed which characterized both standard and non-standard jobs. In fact, several countries show a different trend in this type of tasks between standard and non-standard employment (see for instance Argentina, Chile, Bolivia, and Mexico).

In the case of manual tasks, in both routine and non-routine, the opposite tendency to non-routine cognitive tasks is observed. That is, most of the countries demonstrate that non-standard employment becomes less intensive in manual tasks in the last decade (exceptions are Peru and El Salvador). Also, as in the case of non-routine cognitive tasks, the trend observed in the profile of non-standard employment with respect to manual tasks reflects a generalized behavior in the labor market because the same trend is also observed, and even more pronounced, in standard employment.

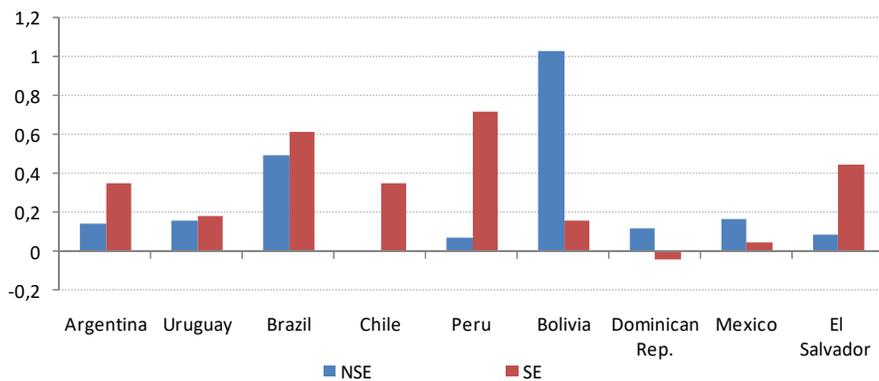
Summarizing, the two more obvious trends in terms of the task content performed by non-standard workers, that is, the rise in the non-routine cognitive tasks and the fall in manual tasks, are also observed in standard wage employment and self-employed workers. However, the fact that the trends in NSE and SE present the same sign does not imply that there may not be specificities in the behavior of non-standard employment. In effect, the changes in the task profile could be happening at different speeds.

With the aim of checking this possibility we carried out several tests in which the null hypothesis was defined so that the variation in the task content in NSE coincided with the variation recorded for SE. The results of the hypothesis tests are presented in the Annex of the paper. Even though there are a few exceptions, the results of the tests suggest that the intensity of the changes in the tasks performed of NSE are different compared with the changes observed among the standard workers.

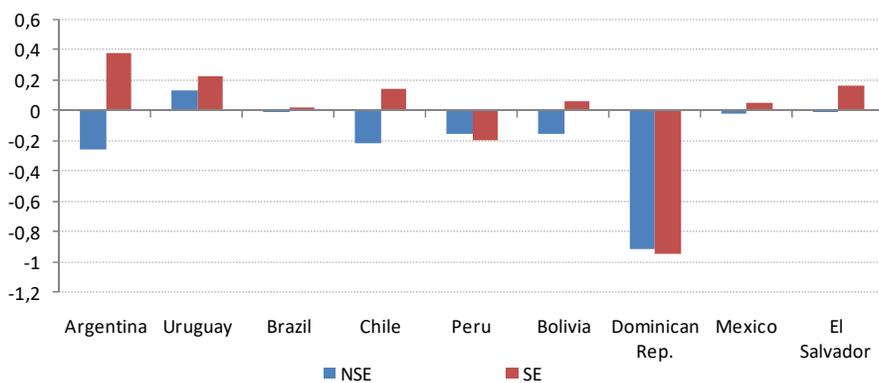
Figure 13: Variation in the task content performed of NSE and SE (Change from Mid-90s)



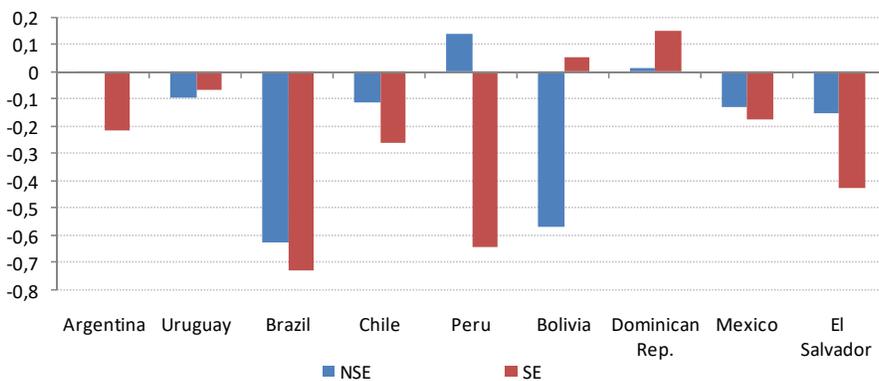
### Non-Routine Cognitive Interpersonal



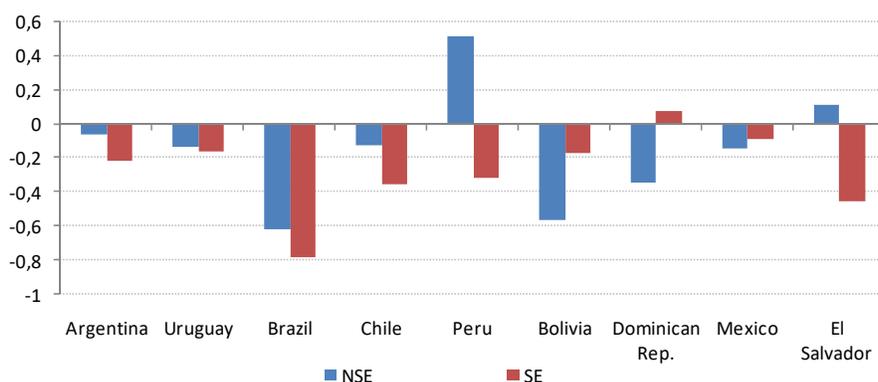
### Routine Cognitive



### Non-Routine Manual



## Routine Manual



Source: Own calculations based on Household surveys.

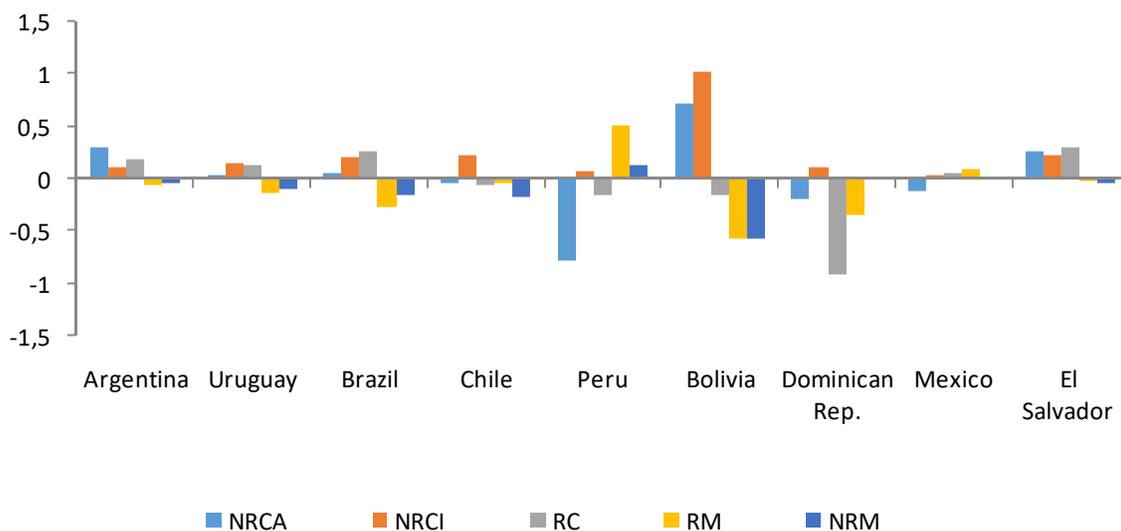
However, it should be noted that the tests do not allow us to identify a common trend across countries with respect to the speeds at which changes occur within NSE and SE. While in some countries a more rapid change is observed in the profile of tasks of non-standard workers compared to standard employment, in others, the opposite occurs.

It should be noted that within this general picture of non-standard employment trends in terms of their job profile, we found specific and, in some cases differentiating behaviors between part-time employment (Figure 14) and temporary employment (Figure 15).

Indeed, the tendency towards a more intensive profile in non-routine cognitive tasks is more evident in the case of temporary employment, where in all the countries analyzed, without exception, non-standard employment presents this change in their profile. Additionally, while part-time employment shows heterogeneous behavior with respect to the trends of routine cognitive tasks, in the case of temporary employment there is a clear trend towards a less intense profile in this type of tasks.

Finally, the trend towards a less intensive profile of manual tasks is observed for most of the countries in both part-time and temporary employment although with exceptions in the two cases.

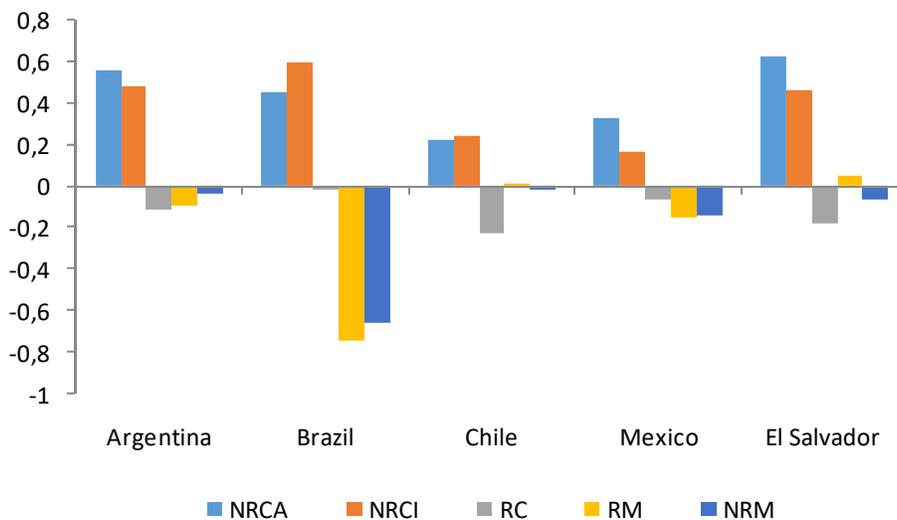
Figure 14: Variation in the task content performed by part-time workers. (Change from Mid-90s)



Source: Own calculations based on Household surveys.

Note: NRCA refers to Non-Routine Cognitive Analytical, NRCI is Non-Routine Cognitive Interpersonal, RC is Routine Cognitive, RM is Routine Manual and NRM is Non-Routine Manual.

Figure 15: Variation in the task content performed by temporary workers. (Change from Mid-90s)



Source: Own calculations based on Household surveys

Note: NRCA refers to Non-Routine Cognitive Analytical, NRCI is Non-Routine Cognitive Interpersonal, RC is Routine Cognitive, RM is Routine Manual and NRM is Non-Routine Manual

### 4.1.3 Summary of results for Latin America and the Caribbean

The analysis performed for a set of 9 countries shows a relatively stable prevalence of non-standard employment in the total number of employed people in the last two decades. Within this stable panorama in the prevalence of non-standard contracts, there is a fairly generalized trend towards an increase in part-time employment, together with a lower share of temporary employment.

Regarding the profile of NSE, we find several changes in the last two decades. First, from the educational perspective, an improvement in the profile of workers employed as NSE can be observed in the countries analyzed, in both part-time and temporary employment. In the case of temporary employment, the improvement of the educational profile is even more evident and generalized than in part-time employment. From the point of view of wages, two important concluding changes are identified. On the one hand, a shift to the right of the wage distribution is observed in all the countries analyzed, indicating an increase in their average labor income per working hour. Finally, examining the task content performed in jobs, we find a movement towards non-routine cognitive tasks, together with a reduced importance of manual tasks.

However, it should be noted that in most cases, the changes in the profile of NSE workers cannot be considered a specific characteristic of non-standard employment since it is also observed in standard wage employment and self-employed workers at least in sign.<sup>7</sup>

## 4.2 NSE trends in Europe and Central Asia

As mentioned in the previous section, the available data sources limited the statistical analysis presented below to the types of temporary employment and part-time employment. At the same time, it was not possible in all cases to identify the employees whose employment relationship is temporary. In this sense, it is necessary to bear in mind that all indicators of prevalence and profile of non-standard employment will be limited to a subset of this kind of workers.

We study a sample of 7 developing countries from the ECA region, particularly from Eastern Europe and Central Asia. Specifically, the analysis was conducted for the Russian Federation, Georgia, Kyrgyzstan, Turkey, Armenia, Albania, and Moldova.

In the 7 cases mentioned, it was possible to identify part-time employees; while only in 4 cases temporary workers were also identified (it was not possible to identify temporary employment in the databases of Russia, Armenia, and Albania).

### 4.2.1 Variation of the NSE as a percentage of total employment

The trends of non-standard employment in Eastern Europe and Central Asia do not show a homogeneous pattern in the last 10/15 years (Figure 16). Indeed, there is an increase of the NSE share in the total wage-employees in the Kyrgyzstan Republic, Turkey and Moldova, while Russia Georgia, Armenia, and Albania, present the inverse trend.

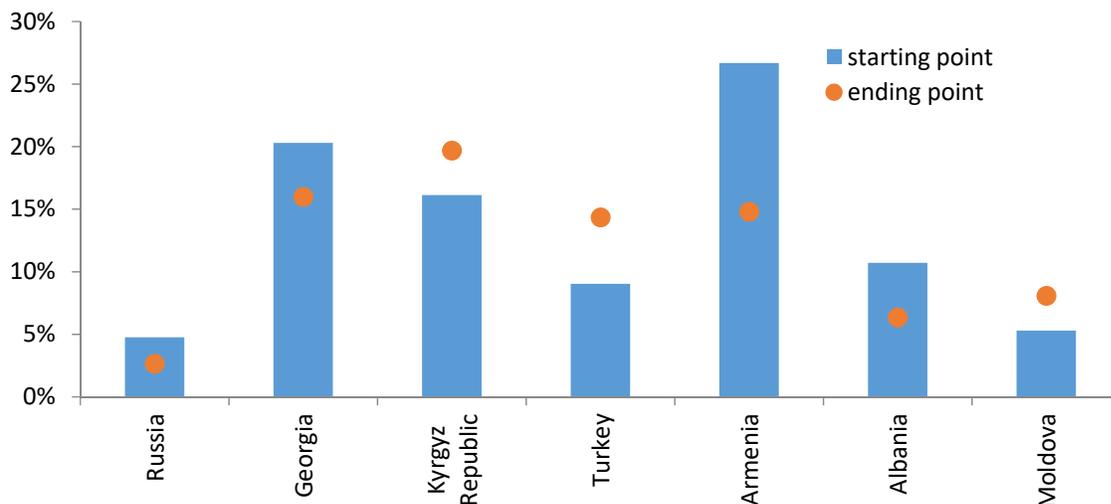
Analyzing the prevalence of NSE by types of occupations, we find a quite similar pattern across countries which is also similar to the findings for Latin American and the Caribbean countries. In most of the countries, the “Elementary occupations” is the category where the prevalence of NSE is

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<sup>7</sup>Regarding the depth of changes, we identify some differences between NSE and SE but without a common pattern across countries.

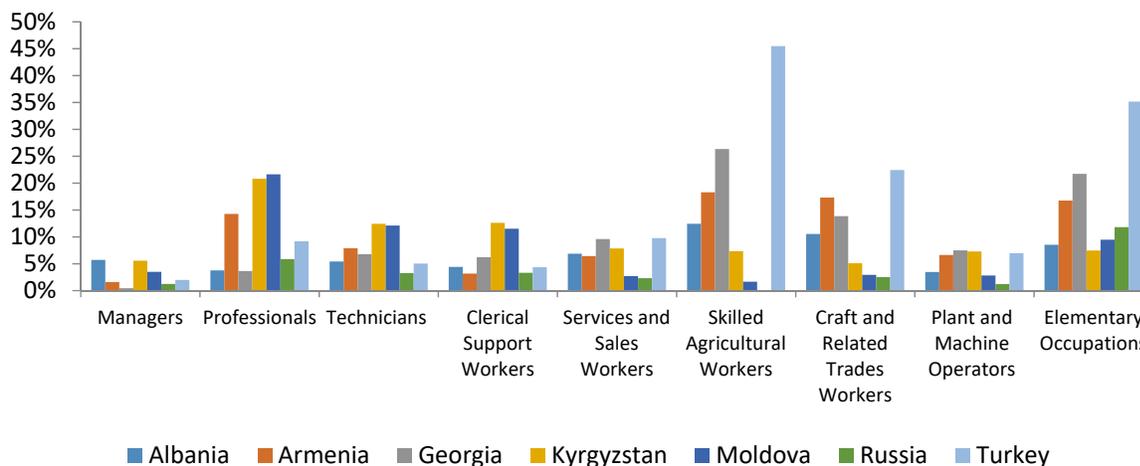
higher followed by the “Professionals” and “Skilled agricultural, forestry and fishery workers”. On the contrary, “Managers”, “Technicians”, “Craft and related trades workers” and “Plant and machine operators and assemblers” are the types of occupations with a lower incidence of NSE in the region.

Figure 16: Prevalence of NSE among salaried employees. (Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys

Figure 17: Prevalence of NSE by categories of occupations ISCO. (Mid-2010s)



Source: Own calculations based on Household surveys.

As in the case of Latin American countries, the observed prevalence of NSE across types of occupations suggests a strong heterogeneity across non-standard employees. Actually, as we will analyze in detail in next sections, the productivity and task profile of workers in the categories of “Professionals” and “Elementary workers” is very different, even though both types of occupations are characterized by a higher prevalence of non-standard employment arrangements.

In the four countries which exhibit a decrease in the overall prevalence of NSE among countries of Asia and Eastern Europe, it is mainly explained by a decline of non-standard arrangements in the categories of “Skilled agricultural workers”, “Plant and machine operators” and to a lesser extent by the “Elementary occupations.”<sup>8</sup> The prevalence of NSE among the rest of the categories of occupations does not evidence a clear trend across countries in the considered period.

When the prevalence of NSE is analyzed by the type of arrangement, different to the case of Latin American and Caribbean countries, we find similar behaviors in part-time employment and temporary employment within countries.

In the case of part-time employment (Figure 18), we observe a slight increase in the prevalence of part-time employment in the last 10/15 years in the Kyrgyzstan Republic, Turkey and Moldova while Russia, Georgia, Armenia, and Albania evidence a decrease in the share of this type of arrangement among wage employees. That is, we find evidence of a heterogeneous panorama in the countries of Eastern Europe and Central Asia instead of a common trend.

Similarly, the share of temporary employment within wage employees shows a heterogeneous pattern in the countries where this kind of arrangement was identified. Indeed, we observe a decline in the prevalence of temporary employment in the last 10/15 years in Georgia and Armenia, both countries which also exhibit a decrease in the prevalence of part-time arrangements. On the contrary, there we observe a rise in the share of temporary employment in Kyrgyzstan and Turkey, countries where there is also evidence of a rise in part-time arrangements.

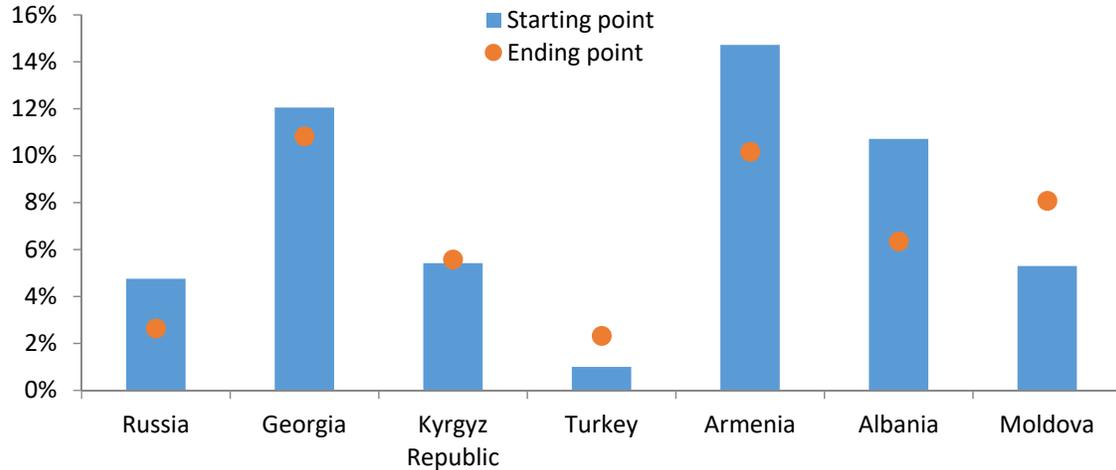
Analyzing the composition of non-standard employment by age groups, we find some differences across countries and across the types of NSE (Figure 20 and 21).

On the one hand, part-time employment, in most of the countries, currently shows an older profile than 10/15 years ago. Indeed, the share of the oldest groups in the composition of part-time employment clearly increases in Russia, Georgia, Armenia, Albania, and Moldova. The exceptions are Kyrgyzstan and Turkey, where there are no significant changes in the composition of non-standard employment by age groups.

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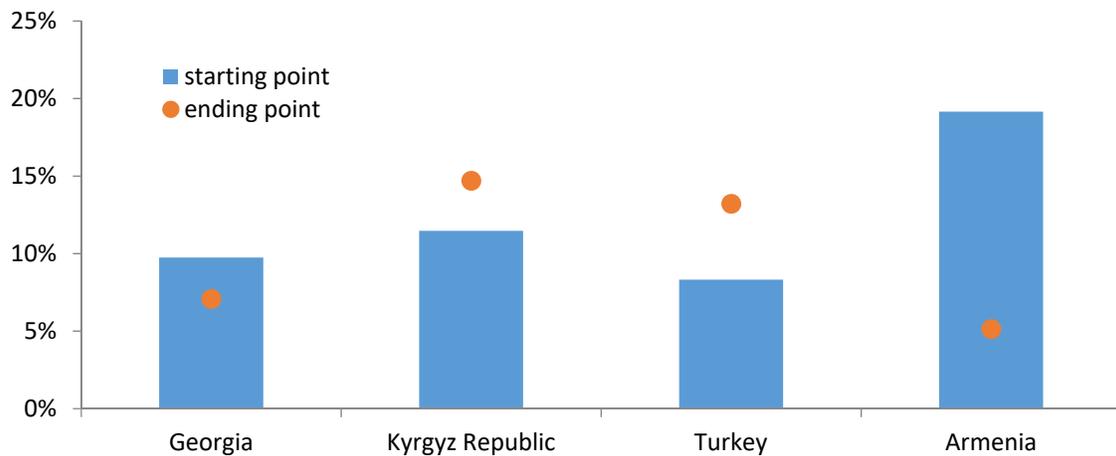
<sup>8</sup> The Annex presents the prevalence of NSE by categories of occupations for the starting point of the analysis

Figure 18: Prevalence of Part-time employment among salaried employees.  
(Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys.

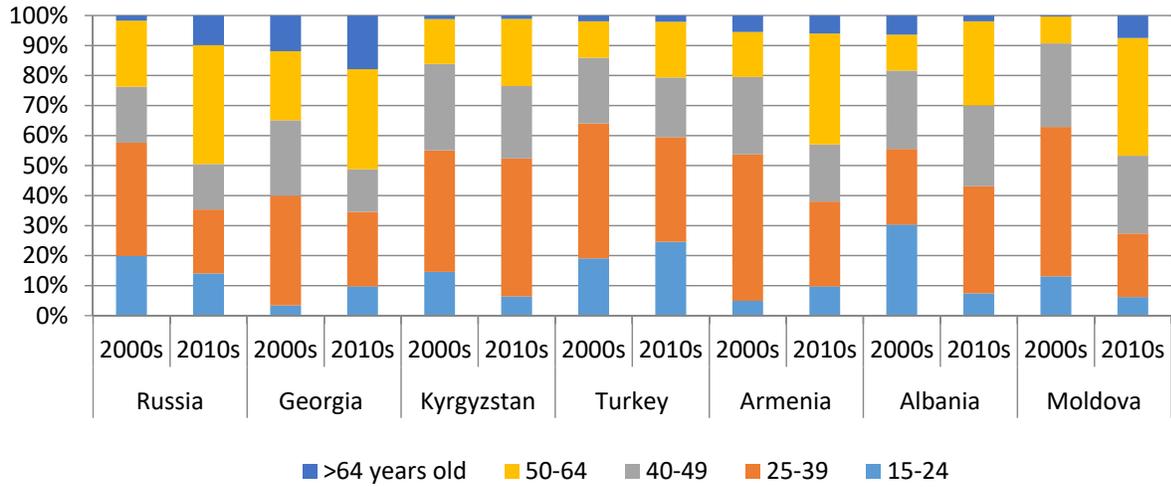
Figure 19: Prevalence of Temporary employment among salaried employees.  
(Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys

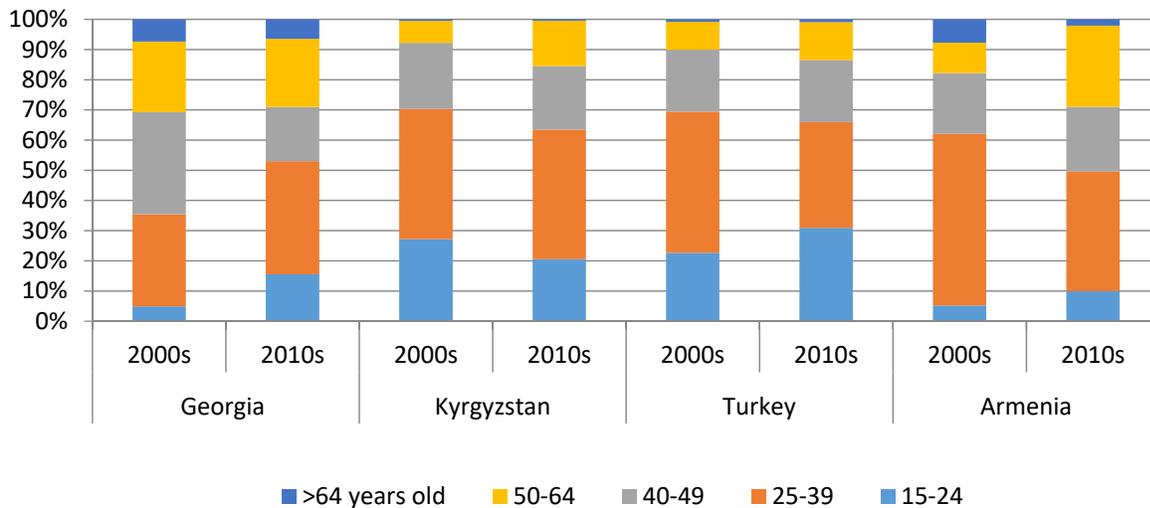
The older age profile of part-time employment in most of the analyzed countries of Eastern Europe and Asia is consistent with the age profile observed for total employment. In fact, the mean age of the labor force rose 4.5 years on average in the countries included in the study. That is, the older age profile of NSE workers reflects the aging trend of the overall labor force.

Figure 20: Part-time employment by age groups. (Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys

Figure 21: Temporary employment by age groups. (Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys

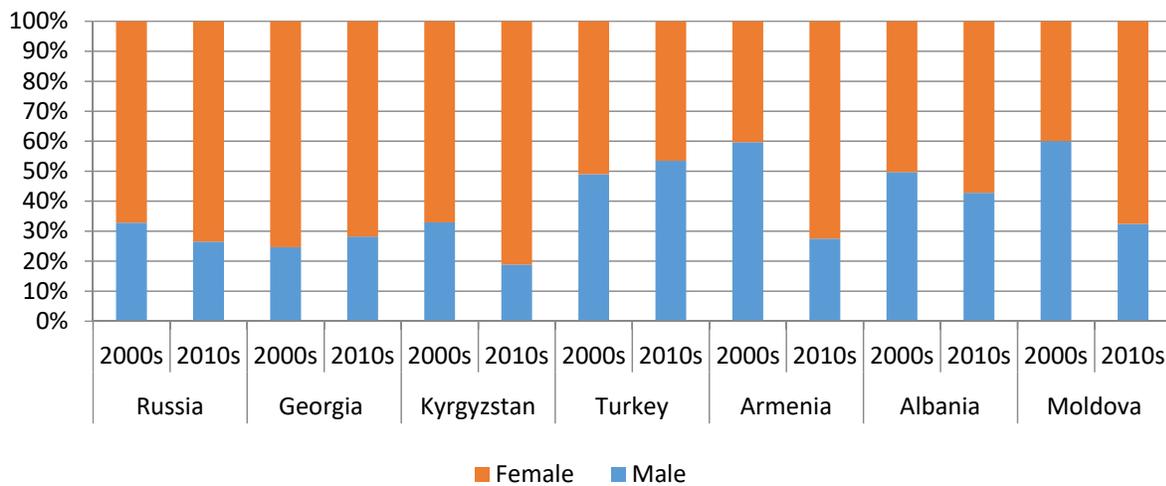
A less clear picture is observed in the case of temporary employment. Indeed, in the four countries where temporary employees are identified, we observe different dynamics in the age profile. On the one hand, Kyrgyzstan and Turkey do not evidence significant changes in the age profile of temporary workers in the last 10/15 years. On the other hand, Georgia and Armenia present changes in the age profile but in opposite directions. Armenia shows today a higher share of the older groups within temporary employees while Georgia evidences a younger profile of temporary workers.

Finally, analyzing the composition of non-standard employment by gender, we have a heterogeneous picture by types of non-standard employment in the levels but with a similar trend (Figure 22 and 23). In the case of part-time employment, there is observed a larger female participation while

temporary jobs have a higher male profile in most of the analyzed countries. The exceptions are Armenia and Moldova in the starting point of the study where there is observed a share of males larger than 50% of part-time employees. In the case of temporary employment, we find in all cases and periods a predominantly male profile.

From a dynamic point of view, both part-time and temporary employees show in most of the countries a growing share of women. In fact, in the case of part-time employment, this growing female prevalence is observed in Russia, Kyrgyzstan, Armenia, Albania, and Moldova, while Turkey and Georgia show a very small rise on the share of men. Additionally, regarding the four cases in which we identify temporary employment, there is also a small growing female participation in Kyrgyzstan and Georgia, while the distribution by gender remains almost constant in Turkey and Armenia.

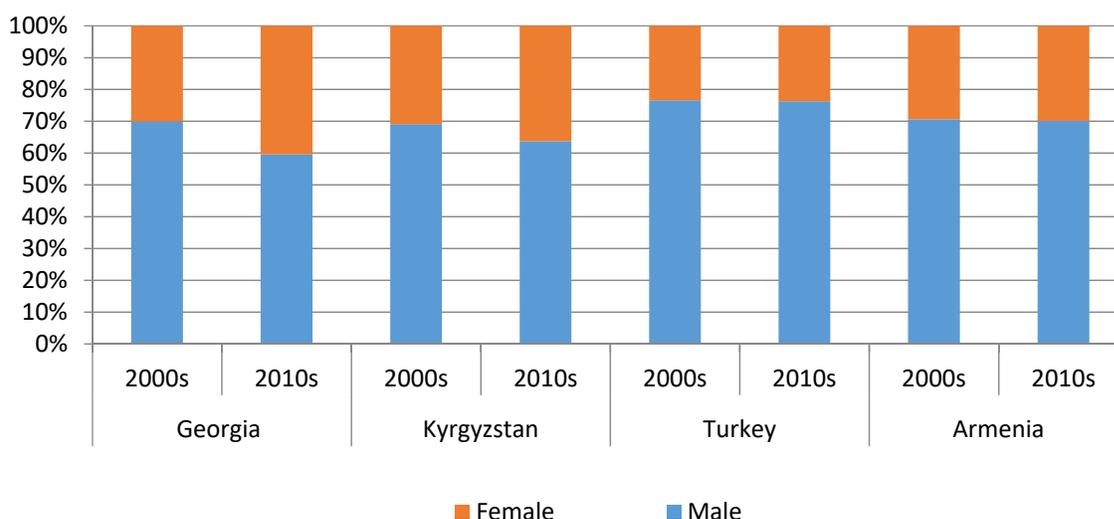
Figure 22: Part-time employment by gender. (Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys.

Like in the case of the age profile, the growing female participation is consistent with the observed trend in overall employment. Indeed, in the considered period, there is observed a rise in the female participation in total employment of approximately 1 percentage point on average. Statistics among the age and gender profile for total employment are included in the Annex II of the paper.

Figure 23: Temporary employment by gender. (Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys

In summary, the evidence does not suggest a clear trend across countries regarding the prevalence of non-standard employment but rather identifies a heterogeneous panorama by countries and types of non-standard employment.

#### 4.2.2 Profile of Non-Standard Employment

In this section, we investigate possible changes in the profile of non-standard employment, usually associated with lower productivity and greater vulnerability. Like in the case of the LAC countries, the analysis of the employment profile was made based on the education, wages and the content of tasks performed.<sup>9</sup>

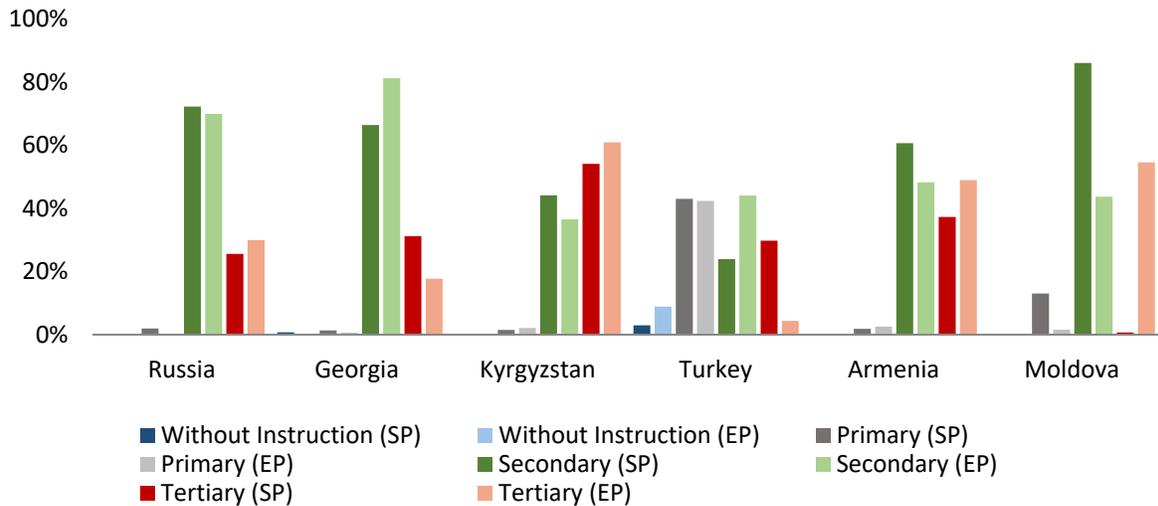
From the educational point of view, a general tendency can be observed in the countries analyzed to improve the profile of workers linked to non-standard work contracts. In fact, in most of the countries in our sample, it is observed that taken together, the prevalence of workers with secondary and tertiary educational levels increases to the detriment of workers with a lower educational level.

In the case of part-time employment (Figure 25), there is a first group of countries which present a decrease in the prevalence of workers at the secondary level, but, this decrease is compensated by the greater incidence of tertiary workers, so that, taken together, workers at the secondary or higher education increased their share within part-time employees (Russia, Kyrgyzstan, Armenia, and Moldova). Therefore, we can conclude from this group that part-time employment presents a better

<sup>9</sup> For limitations in the data, there is not included an analysis in terms of informality. For limitations in the databases, Albania was not included in the analysis of educational profile. Also, due to limitations in the identification of occupational categories, Turkey was not included in the task content profile.

educational profile today than 10/15 years ago. Finally, the cases of Georgia and Turkey are less clear because we find a rise in the prevalence of workers with secondary education but together with a decrease in the share of workers at the tertiary level.

Figure 24: Education profile of Part-time employees. (Early 2000s/Mid-2010s)

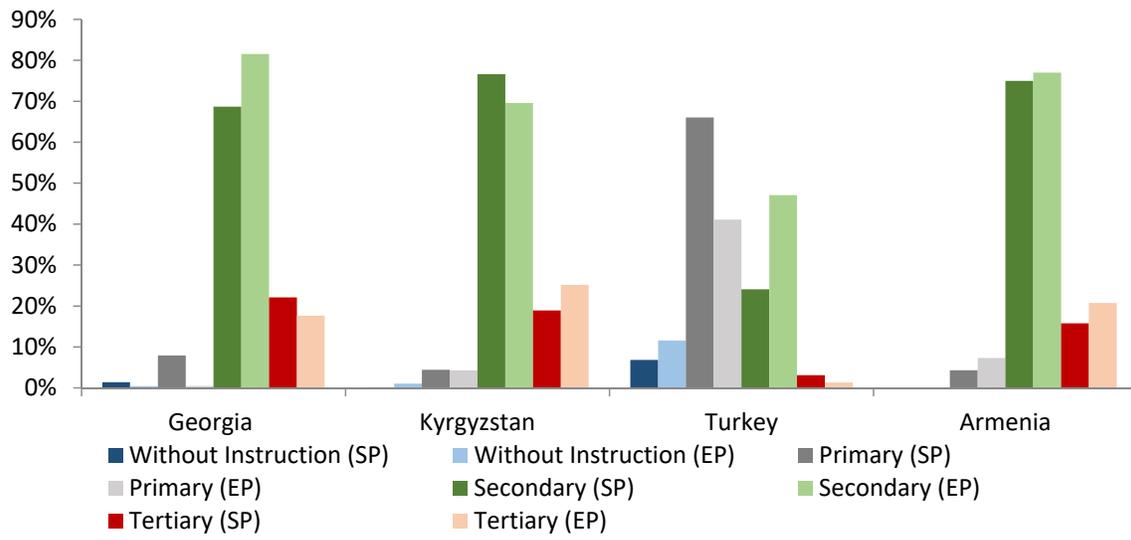


Source: Own calculations based on Household surveys

Note: SP indicates the starting point of the analysis and EP states de ending point.

A similar picture is registered in the case of temporary employment. Armenia is the most evident case of improvement in the educational profile of part-time workers because it is observed a rise in the share of workers with secondary and tertiary education. Kyrgyzstan shows a decrease in the prevalence of workers at the secondary level, but this decrease is compensated by the greater incidence of tertiary workers. Lastly, Georgia and Turkey are the countries where the improvement of the educational profile of temporary workers is less clear because there is observed a rise in the prevalence of workers with secondary education compensated, in part by a decrease in the share of workers at the tertiary level. Anyway, even in this last two cases, taken together, the share of workers with secondary and tertiary education increased within temporary workers in detriment of workers with lower levels of education.

Figure 25: Education profile of Temporary employees. (Early 2000s/Mid-2010s)



Source: Own calculations based on Household surveys

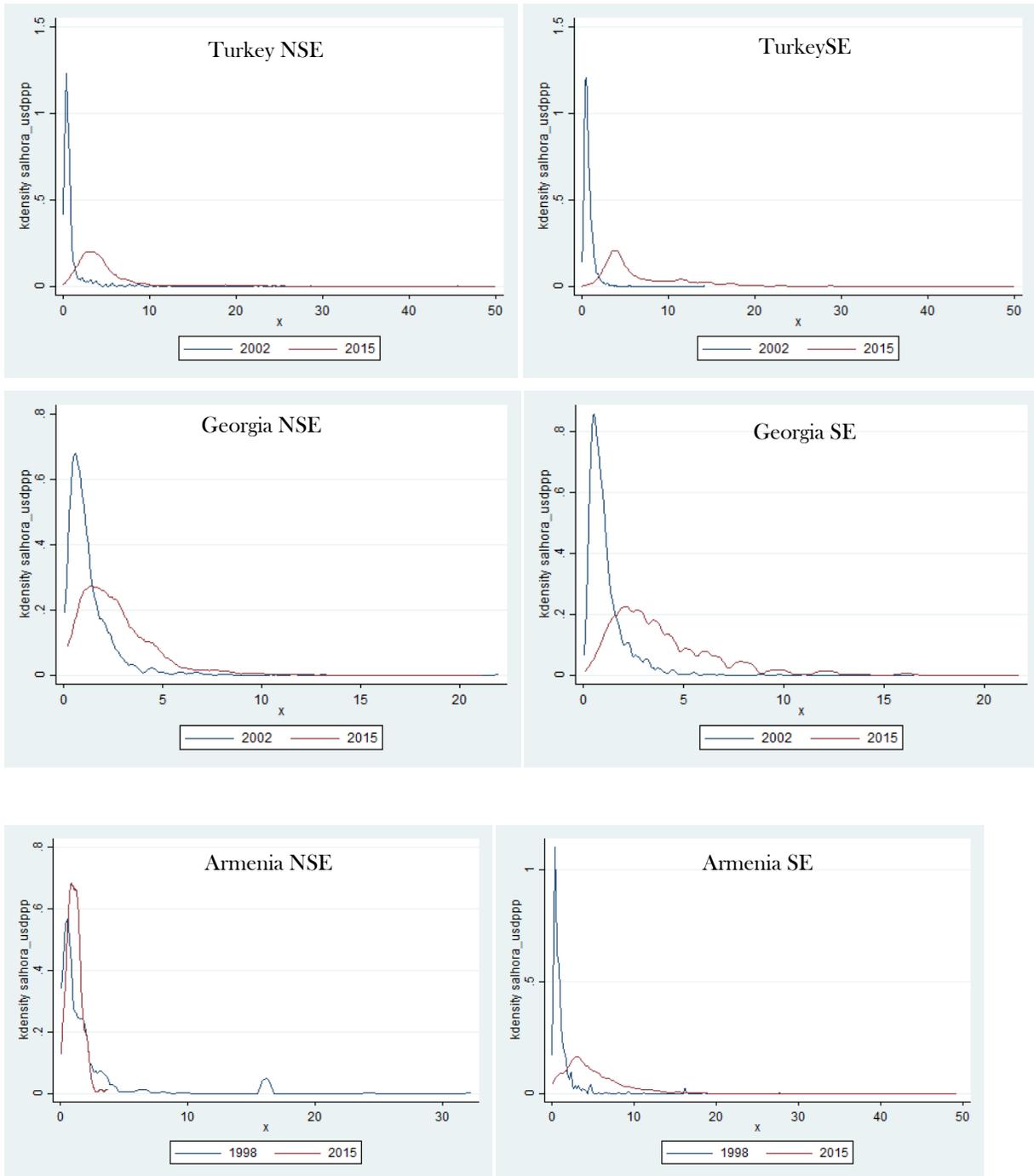
Note: SP indicates the starting point of the analysis and EP states de ending point.

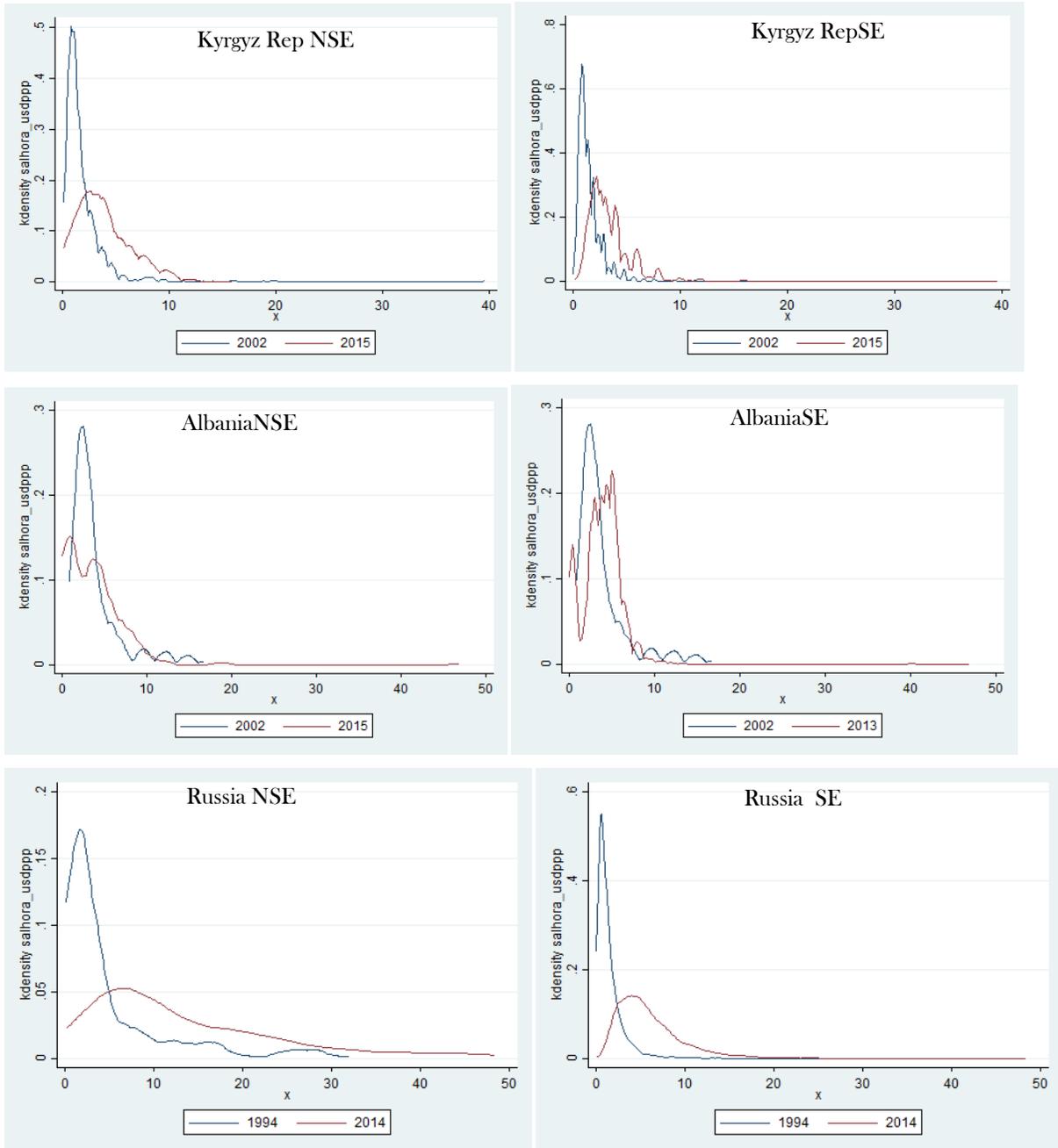
It should be noted, however, that, like in the case of Latin American countries, the improvement in the educational profile of workers is a generalized trend in the countries considered and cannot be considered a specific characteristic of non-standard employment since it is also observed in standard wage employment and self-employed workers. Statistics regarding the educational profile of standard employees are included in the Annex of the paper.

When we analyze what has happened at the salary level in the period of consideration (Figure 26), two important conclusions emerge. On the one hand, a shift to the right of the wage distribution is observed in all the countries analyzed, indicating an increase in their average. This growth in wages is simply a consequence of the economic growth experienced by the economies. Note that this average wage increase is also observed in the counterpart of standard employment in all cases.<sup>10</sup>

<sup>10</sup>As mentioned above, standard employment is calculated as the total number of employees who do not identify with any of the non-standard categories (temporary or part-time). However, since there are non-standard forms of employment not identified in the database, our standard employment category could, in fact, incorporate non-standard workers.

Figure 26: Wage distributions for Non-standard and Standard employees. Selected Countries.  
(Early 2000s/Mid-2010s)





Source: Own calculations based on Household surveys.

The second trend identified as generalized in the countries of study is the increase in the variance of the wage distribution. In fact, in the vast majority of countries considered, non-standard employment wages currently show a significantly greater dispersion than that registered a decade ago. The only exception to this trend is Armenia, for which the salary distribution of current non-standard employment is similar in terms of variance to that observed at the starting point of the study.

However, as in the case of the educational profile, the trends observed in the wage distribution do not seem to be a specific characteristic of non-standard employment, but rather, could be considered a global trend of the labor market which also includes the standard employees.

Finally, we analyze the trends in the task content performed by non-standard employment following the task methodology of Acemoglu and Autor (2011) described in section 3.

A first general view suggests a heterogeneous picture across countries. Like in the case of Latin American and Caribbean countries, we find countries where the non-routine cognitive content of jobs (both analytical and interpersonal) increased in both NSE and SE. This is the case of Albania and Moldova. However, in the ECA region, we also find clear exceptions where non-standard employment shows a less intense profile in non-routine cognitive tasks (Russia and Georgia). Finally, we have intermediate cases like Kyrgyzstan where the intensity of non-routine cognitive tasks remains almost constant and Armenia where NSE evidences a rise in the intensity of non-routine cognitive analytical tasks together with a less intense profile in non-routine cognitive interpersonal tasks.

However, it should be noted that, in most of the cases, the changes in the intensity of non-routine cognitive tasks are not a specific phenomenon of non-standard employment since usually a similar change is observed for standard workers.

The evolution of the intensity in routine cognitive tasks in the last 10/15 years in non-standard employment also evidences a heterogeneous panorama. In fact, on the one hand, countries such as Armenia, Albania, and Moldova have non-standard employment with a significantly higher intensity in routine cognitive tasks than a decade ago. In turn, non-standard employment in Georgia and Russia shows a significant drop in the content of routine cognitive tasks. Finally, in Kyrgyzstan, there is no significant variation in the intensity of routine cognitive tasks of non-standard employment.

Lastly, in the case of manual tasks, both routine and non-routine, the opposite tendency to non-routine cognitive tasks is usually registered. Indeed, in the cases of Albania and Moldova we find that non-standard employment becomes less intensive in manual tasks in the last decade while in Georgia, we find evidence of a profile more intensive in manual tasks. The cases of Russia and Kyrgyzstan show a profile of intensity in manual tasks similar to the one observed in the starting point of the study.

Like in the analysis of previous categories, the dynamic of manual tasks within NSE probably reflects a generalized behavior in the labor market instead of a specific trend, because similar changes are observed for standard employees. Therefore, like in the case of Latin American and Caribbean countries, we carry out several hypothesis tests with the aim of checking if the depth of the changes in the task profile of occupations is different among NSE and SE distinguishes part-time and temporary employment.

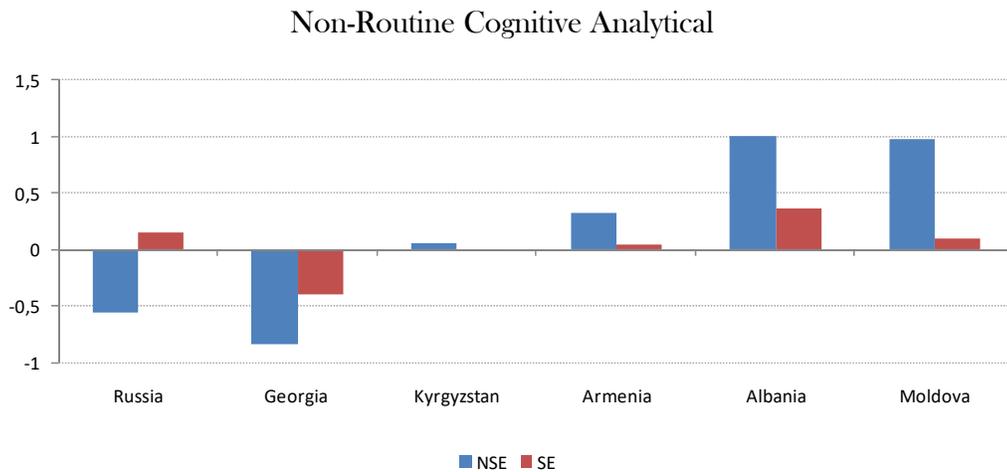
The results of the hypothesis tests are presented in the Annex of the paper. Even though there are a few exceptions, the results of the tests state that the intensity of the changes in the tasks performed in NSE is different compared with the changes observed among standard workers. However, while in some cases the changes are deeper in NSE compared with SE, in other countries we find the opposite result.

Finally, it should be noted that within this general picture of non-standard employment trends in terms of their job profile, we found specific and, in some cases, different behaviors between part-time employment and temporary employment.

In fact, part-time employment shows a more generalized trend towards non-routine cognitive tasks, where Russia and Georgia are the only exceptions (Figure 29). There is also observed a generalized growth in the intensity of routine cognitive tasks, Russia being the only exception. Finally, a less intense profile in manual tasks (both routine and non-routine) is clearly observed only in the cases of Albania and Moldova.

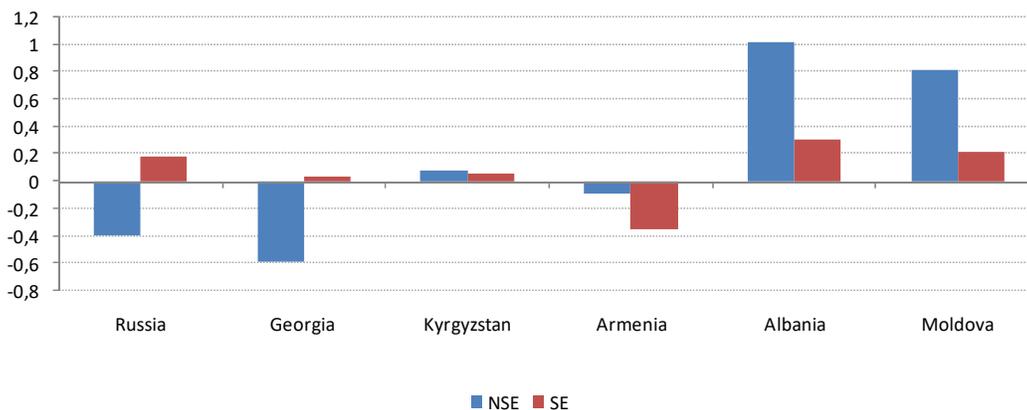
The analysis of the task profile of temporary employees is much more limited since it only includes three countries. In these three cases, there is no observed a change towards a more intense profile in non-routine cognitive tasks. Indeed, only Kyrgyzstan shows a rise in the intensity of non-routine cognitive interpersonal tasks. Additionally, a lower intensity is observed in routine cognitive tasks in Georgia and Kyrgyzstan. Therefore, although the available evidence is very limited, we do not observe a shift towards a more intense task profile in cognitive activities in the case of temporary workers.<sup>11</sup>

Figure 27: Variation in the task content performed by NSE and SE. (Change from the late 90s)

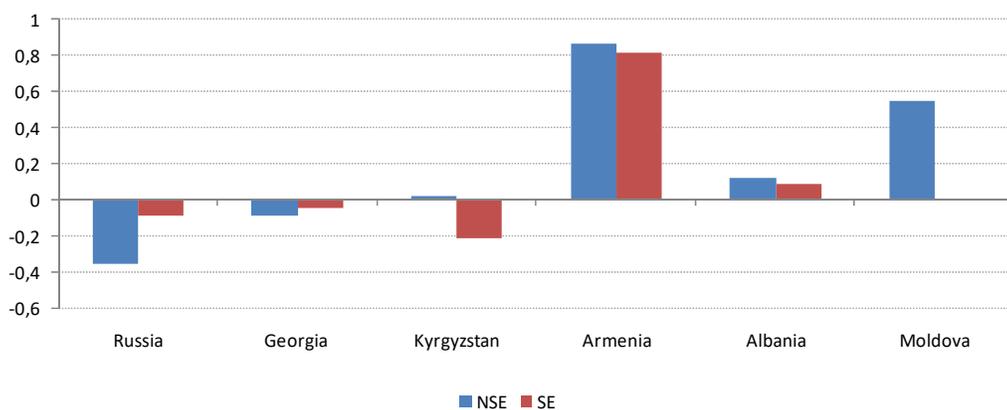


<sup>11</sup> Evidence of a higher intensity of the cognitive tasks in the ECA countries is presented in Keister and Lewandowski (2016).

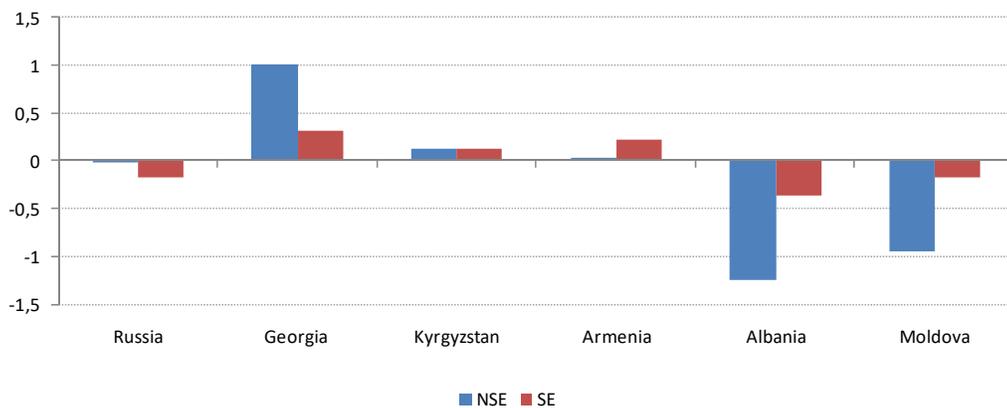
### Non-Routine Cognitive Interpersonal



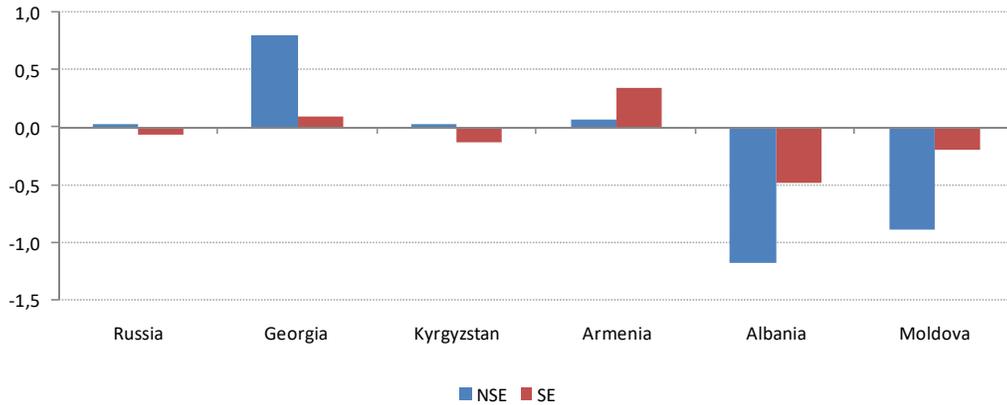
### Routine Cognitive



### Non-Routine Manual



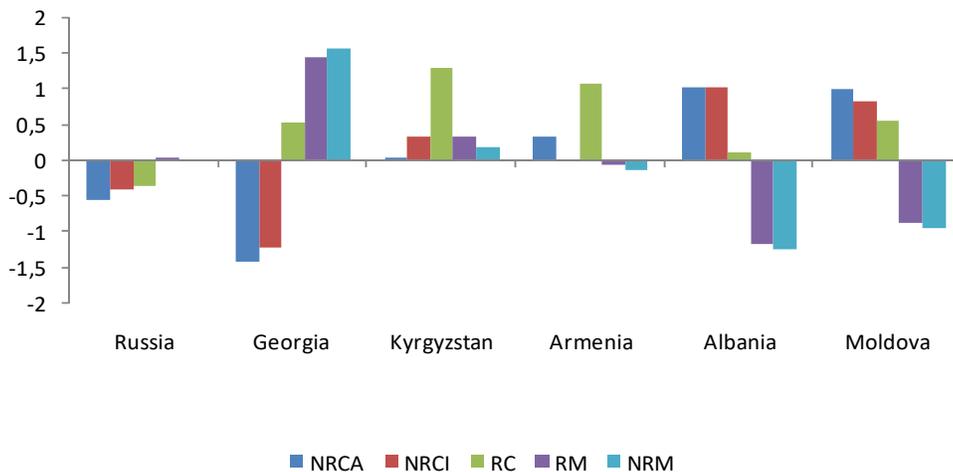
## Routine Manual



Source: Own calculations based on Household surveys

This analysis of the task profile was complemented, in turn, with hypothesis tests to examine whether the evolution recorded by non-standard employment follows a specific behavior or only shows the general trends of the labor market. Tables with the details of the hypothesis tests for the countries of Eastern Europe and Central Asia are included in the Annex of the paper. The main conclusions of this analysis indicate that, in general terms, the profile of part-time and temporary employment has followed the same trends as standard employment, although in most cases with the specificity of presenting significantly more pronounced variations.

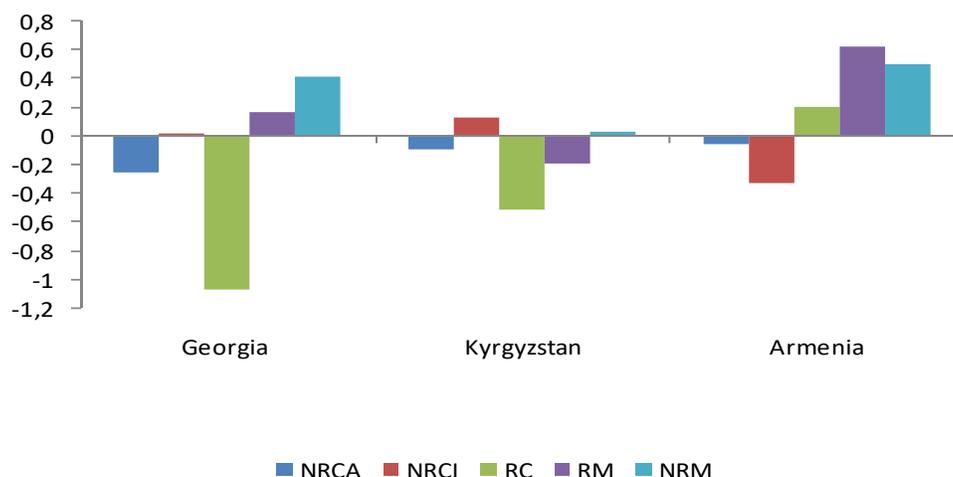
Figure 28: Variance in the task performed of part-time jobs. (Change from the late 90s)



Source: Own calculations based on Household surveys

Note: NRCA refers to Non-Routine Cognitive Analytical, NRCI is Non-Routine Cognitive Interpersonal, RC is Routine Cognitive, RM is Routine Manual and NRM is Non-Routine Manual.

Figure 29: Variance in the task performed of temporary jobs. (Change from the late 90s)



Source: Own calculations based on Household surveys.

Note: NRCA refers to Non-Routine Cognitive Analytical, NRCI is Non-Routine Cognitive Interpersonal, RC is Routine Cognitive, RM is Routine Manual and NRM is Non-Routine Manual.

#### 4.2.3 Summary of results for Europe and Central Asia

The analysis performed for a set of 7 selected countries shows that the trends of non-standard employment in Europe and Central Asia do not show a homogeneous pattern in the last 10/15 years. This heterogeneous picture is observed in both the prevalence of part-time and temporary employment.

Regarding the profile of NSE, we find several changes in the last two decades. First, from the education perspective, an improvement of the profile of workers employed as NSE can be observed in the countries analyzed, in both part-time and temporary employment. From the point of view of wages, two important concluding changes are identified. On the one hand, a shift to the right of the wage distribution is observed in all the countries analyzed, indicating an increase in their average. Finally, examining the task content performed in jobs, we find a heterogeneous picture. In some countries, NSE evidences a movement towards non-routine cognitive tasks, together with a decreased importance of manual tasks in line with the previous results in the literature for total employment, but we have several exceptions.

Additionally, like in the region of Latin America and the Caribbean, in most of the countries analyzed, the changes in the profile of NSE workers cannot be considered a specific characteristic of non-standard employment, since they are also observed in standard wage employment and self-employed workers at least in sign.

## 5. Final reflections

Previous evidence suggests that in recent decades there has been a shift from so-called standard employment to a more flexible form of employment, commonly called ‘non-standard form of employment’. In developing countries, non-standard workers have always been a substantial part of employment, characterized by low productivity and informality. However, in the last decades, non-standard employment has advanced over segments of the labor market previously associated with traditional forms of employment.

This paper specifically studies the evolution of the prevalence and profile of non-standard workers in some countries of Latin America and the Caribbean and of Europe and Central Asia. We do not find a common trend in terms of the prevalence of NSE among the countries analyzed. Indeed, while in Latin America most of the countries show a fairly stable prevalence in recent decades, in Europe and Central Asia we find a more heterogeneous picture with countries where prevalence increases and others where it decreases.

This heterogeneous panorama in the evolution of the prevalence of non-standard employment can be explained by the important differences between the economies included in this study. In fact, as discussed in the second section of this paper, different variables could be acting on the prevalence of non-standard arrangements in the labor market, and they could operate with contrasting effects.

As an example, although most of the countries analyzed show a structural change towards a greater participation of services, the magnitude of this process, as well as the situation of agriculture and industry, differ among the selected countries. In the same way, countries show very different degrees of openness and their evolution in the period of study also differs. Additionally, while some of the countries analyzed had already developed an important moderation process before our period of study, other countries have processed the moderation during the period considered or are still immersed in this process. Finally, the importance of technological change and the automation of certain tasks could be progressing at different speeds between countries.

Regarding the profile of NSE, we find several common characteristics across countries even though there are a few exceptions. First, we find an improvement in the educational profile of NSE. Second, from the point of view of the task content performed in jobs, we find a movement towards non-routine cognitive tasks, together with a reduced importance of manual tasks. Finally, considering the wage distribution, we find a higher variance today with respect to the starting point of the analysis. This finding suggests that NSE today is a more heterogeneous group of workers, which introduces new challenges from the point of view of social protection policies.

The expansion of non-standard employment, particularly when it is not voluntary, has generated a concern from the point of view of the lower (or nil) level of insurance against certain risks that workers face, such as illness, accidents at work, unemployment, and retirement. In this sense, these contractual agreements do not grant workers the same level of rights and protection as those provided to workers with standard work contracts. Furthermore, there are some effects on both the productive sector and the economy as a whole.

According to ILO (2016), some consequences for the productive sector, although eventually not appreciated as such, are related to the higher cost of organization that this type of employment entails, especially if an important part of the workforce is framed in this type of labor agreement. Likewise, what may be desirable and beneficial for the worker or the company individually, especially in the short term, may have negative implications for the economy as a whole in the medium term.

These consequences include underinvestment in innovation and development, the deceleration of productivity growth, less sustainability of social security systems, among others.

Regarding the welfare of the workers, there are adverse effects in almost all dimensions of working conditions, including the ability to access the labor market and the ability to transit between different work positions, the level of income, the number of working hours, health and safety at work, social security coverage, training and union representation and collective bargaining, among others.

The possibility of transitioning from non-standard employment to one of a standard nature is of special concern for temporary workers and for those who develop activities through a temporary employment agency. The possibility of transitioning from non-standard employment to permanent employment generally occurs with low probability. However, temporary employment can act in some cases as a "springboard" for young graduates with little work experience, immigrants, and workers with low qualifications, while giving them the ability to travel the learning curve and gain experience. For this group of workers, it is important to obtain experience and expand the social network that allows them to improve their skills and enables them to face the demand of new tasks. However, when the temporary work contract is renewed continuously, the probability of moving to a standard position is reduced. In these cases, temporary work ceases to be a springboard, since, in a context of economic slowdown, this group of workers is more likely to move towards unemployment or inactivity compared to standard workers.

Non-standard work also often leads to wage differentials. These arise when two workers with the same characteristics perform a set of similar tasks but are remunerated differently. Following ILO (2016), the empirical evidence suggests that the remunerations of non-standard workers can differ significantly from those of regular workers.

Another aspect that tends to worry non-standard workers is that they usually have insufficient (or no) social security coverage, since either legal provisions exclude them from entitlement to contributions, they have a short duration in their contracts or their level of income is very low. For instance, in Japan, the Republic of Korea and South Africa, eligibility for unemployment benefits among workers is limited to those who work a minimum number of hours, with obvious consequences for those who have a part-time occupation, whose hours are below the minimum threshold. In Europe, most temporary workers are legally eligible for unemployment insurance, but higher rates of work rotation and a higher probability of periods of unemployment due to non-renewal of temporary contracts make them less likely to be eligible for other benefits such as health insurance and pensions.

Due to the aforementioned reasons, the growth in NSE is a concern for policy makers. Indeed, policies are needed to ensure that all types of work arrangements constitute decent work. Based on the observation of current practices and discussions between academics and policy makers at the international level, here we present the usual policy recommendations to address the work deficits in NSE (see ILO, 2015 for a high-level summary of the policies in the following topics).

First, policies should be oriented towards reducing the regulatory gaps between NSE and SE. In other words, efforts should be made to ensure that all workers, regardless of their contractual arrangement, have access to freedom of association and collective bargaining rights. It is essential to maintain a level playing field for employees, prevent abuse, and assign obligations and responsibilities in multi-party employment arrangements.

Second, it is essential to ensure the representation of workers in NSE in unions and collective bargaining. The extension of collective agreements to all workers in a sector or occupational category is a useful tool in reducing inequalities for workers in NSE.

Finally, countries should take steps to strengthen social protection. That is, a universal social protection floor should be guaranteed. These efforts may include eliminating or lowering thresholds on minimum hours, earnings or duration of employment, so that workers in NSE are not excluded, or making systems more flexible with regard to contributions required to qualify for benefits, allowing for interruptions in contributions, and enhancing the portability of benefits between different social security systems and employment statuses.

However, it is important to highlight that responding to the concerns of NSE requires more detailed analysis of the effects of specific types of non-standard arrangements, the multiple reasons for their use and growth, consideration as to whether NSE is voluntary or not, the sectors and occupations most affected, as well as the policy options for improving worker protection while providing for enterprise needs.

As we find in our analysis for countries of Latin America and the Caribbean and Europe and Central Asia, even though there are some common trends in the evolution of NSE, we have a lot of heterogeneity across countries. Therefore, a greater understanding is needed of the interplay between regulation, incidence, and effects, drawing on country experiences. For this reason, the previous list of policy recommendations could be adapted in each case to the particularities of the specific countries.

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## Annex I. Test of equality in task profile trends between SE and NSE

### 1. Part-Time Employment

Null Hypothesis:  $(Task_{EP}^{PT} - Task_{IP}^{PT}) = (Task_{EP}^{SE} - Task_{IP}^{SE})$

Where:

$Task_{EP}^{PT}$  indicates the average measure of a task category (Non-Routine Cognitive Analytical - NRCA- Non-Routine Cognitive Interpersonal -NRCI-, Routine Cognitive -RC-, Routine Manual -RM-, and Non-Routine Manual -NRM- ) for Part-Time Employment in the Ending point of the analysis.

$Task_{IP}^{PT}$  indicates the same average measure for Part-Time Employment in the initial point of the analysis.

$Task_{EP}^{SE}$  is the measure of task intensity for the standard employees in the ending point of the analysis.

$Task_{IP}^{SE}$  is the measure of task intensity for the standard employees in the initial point of the analysis.

#### LATIN AMERICA AND THE CARIBBEAN

			$\Delta$ NRCA	Equal sign trend	Reject H0
	SE	Part-time	diff		
Argentina	0.449	0.305	-0.144	yes	yes
Uruguay	0.229	0.0354	-0.193	yes	yes
Brazil	0.543	0.0594	-0.483	yes	yes
Chile	0.437	-0.0469	-0.484	no	yes
Peru	0.177	-0.7850	-0.962	yes	yes
Bolivia	0.206	0.7271	0.521	yes	yes
Dominican Rep.	-0.504	-0.1851	0.319	yes	yes
Mexico	0.020	-0.1047	-0.125	no	yes
El Salvador	0.555	0.2667	-0.289	yes	yes

			$\Delta$ NRCI	Equal sign trend	Reject H0
	SE	Part-time	diff		
Argentina	0.349	0.108	-0.241	yes	yes
Uruguay	0.183	0.1567	-0.026	yes	no
Brazil	0.613	0.2045	-0.409	yes	yes
Chile	0.352	0.2270	-0.125	yes	yes
Peru	0.717	0.0714	-0.645	yes	yes
Bolivia	0.158	1.0249	0.866	yes	yes
Dominican Rep.	-0.044	0.1151	0.159	no	yes
Mexico	0.048	0.0444	-0.004	yes	no
El Salvador	0.446	0.2219	-0.224	yes	yes

	SE	Part-time	$\Delta$ RC diff	Equal sign trend	Reject H0
Argentina	0.376	0.196	-0.181	yes	yes
Uruguay	0.217	0.1320	-0.085	yes	yes
Brazil	0.016	0.2586	0.242	no	yes
Chile	0.144	-0.0529	-0.197	no	yes
Peru	-0.202	-0.1518	0.050	yes	no
Bolivia	0.058	-0.1517	-0.210	no	yes
Dominican Rep.	-0.940	-0.9132	0.027	yes	no
Mexico	0.047	0.0636	0.017	no	no
El Salvador	0.160	0.3046	0.145	no	yes

	SE	Part-time	$\Delta$ RM diff	Equal sign trend	Reject H0
Argentina	-0.217	-0.054	0.163	yes	yes
Uruguay	-0.161	-0.1357	0.025	yes	yes
Brazil	-0.781	-0.2709	0.510	yes	yes
Chile	-0.356	-0.0325	0.324	yes	yes
Peru	-0.320	0.5051	0.825	yes	no
Bolivia	-0.175	-0.5609	-0.386	yes	yes
Dominican Rep.	0.070	-0.3446	-0.414	yes	no
Mexico	-0.094	0.0925	0.187	no	no
El Salvador	-0.456	-0.0051	0.451	yes	yes

	SE	Part-time	$\Delta$ NRM diff	Equal sign trend	Reject H0
Argentina	-0.216	-0.042	0.173	yes	yes
Uruguay	-0.068	-0.0988	-0.031	yes	yes
Brazil	-0.726	-0.1546	0.572	yes	yes
Chile	-0.257	-0.1622	0.095	yes	yes
Peru	-0.641	0.1368	0.778	no	yes
Bolivia	0.054	-0.5684	-0.623	no	yes
Dominican Rep.	0.146	0.0125	-0.134	yes	yes
Mexico	-0.175	0.0219	0.197	no	yes
El Salvador	-0.424	-0.0475	0.377	yes	yes

## EUROPE AND CENTRAL ASIA

	SE	Part-time	$\Delta$ NRCA diff	Equal sign trend	Reject H0
Rusia	0.146	-0.555	-0.701	no	yes
Georgia	-0.403	-1.411	-1.009	yes	yes
Kyrgyzstan	0.004	0.046	0.042	yes	no
Armenia	0.048	0.329	0.281	yes	yes
Albany	0.368	1.006	0.639	yes	yes
Moldova	0.094	0.982	0.888	yes	yes

	SE	Part-time	$\Delta$ NRCI diff	Equal sign trend	Reject H0
Rusia	0.182	-0.396	-0.578	no	yes
Georgia	0.033	-1.215	-1.247	no	yes
Kyrgyzstan	0.054	0.325	0.271	yes	yes
Armenia	-0.346	0.007	0.353	no	yes
Albany	0.311	1.021	0.710	yes	yes
Moldova	0.215	0.818	0.604	yes	yes

	SE	Part-time	$\Delta$ RC diff	Equal sign trend	Reject H0
Rusia	-0.089	-0.359	-0.270	yes	yes
Georgia	-0.047	0.534	0.581	no	yes
Kyrgyzstan	-0.216	1.281	1.497	no	yes
Armenia	0.819	1.068	0.249	yes	yes
Albany	0.091	0.119	0.028	yes	no
Moldova	-0.001	0.551	0.552	no	yes

	SE	Part-time	$\Delta$ RM diff	Equal sign trend	Reject H0
Rusia	-0.057	0.036	0.093	no	no
Georgia	0.097	1.441	1.344	yes	yes
Kyrgyzstan	-0.121	0.329	0.450	no	yes
Armenia	0.340	-0.062	-0.401	no	yes
Albany	-0.484	-1.171	-0.687	yes	yes
Moldova	-0.193	-0.879	-0.686	yes	yes

	SE	Part-time	$\Delta$ NRM diff	Equal sign trend	Reject H0
Rusia	-0.167	0.002	0.169	no	yes
Georgia	0.323	1.563	1.240	yes	yes
Kyrgyzstan	0.126	0.173	0.048	yes	no
Armenia	0.216	-0.123	-0.339	no	yes
Albany	-0.368	-1.243	-0.875	yes	yes
Moldova	-0.172	-0.951	-0.778	yes	yes

## 2. Temporary employment

Null Hypothesis:  $(Task_{EP}^T - Task_{IP}^T) = (Task_{EP}^{SE} - Task_{IP}^{SE})$

Where:

$Task_{EP}^T$  indicates the average measure of a task category (Non-Routine Cognitive Analytical - NRCA- Non-Routine Cognitive Interpersonal -NRCI-, Routine Cognitive -RC-, Routine Manual - RM-, and Non-Routine Mnual -NRM-) for Temporary Employment in the Ending point of the analysis.

$Task_{IP}^T$  indicates the same average measure for Temporary Employment in the initial point of the analysis.

$Task_{EP}^T$  is the measure of task intensity for the Temporary employees in the ending point of the analysis.

$Task_{IP}^{SE}$  is the measure of task intensity for the standard employees in the initial point of the analysis.

$Task_{EP}^{SE}$  is the measure of task intensity for the standard employees in the ending point of the analysis.

## LATIN AMERICA AND THE CARIBBEAN

	SE	Temporary	$\Delta$ NRCA diff	Equal sign trend	Reject H0
Argentina	0.449	0.555	0.106	yes	yes
Brazil	0.543	0.4445	-0.098	yes	yes
Chile	0.437	0.2148	-0.222	yes	yes
Mexico	0.020	0.3242	0.304	yes	yes
El Salvador	0.555	0.6205	0.065	yes	yes

	SE	Temporary	$\Delta$ NRCI diff	Equal sign trend	Reject H0
Argentina	0.349	0.474	0.125	yes	yes
Brazil	0.613	0.5886	-0.025	yes	yes
Chile	0.352	0.2391	-0.113	yes	yes
Mexico	0.048	0.1605	0.112	yes	yes
El Salvador	0.446	0.4539	0.008	yes	no

	SE	Temporary	$\Delta$ RC diff	Equal sign trend	Reject H0
Argentina	0.376	-0.118	-0.494	no	yes
Brazil	0.016	-0.0177	-0.034	no	yes
Chile	0.144	-0.2252	-0.369	no	yes
Mexico	0.047	-0.0632	-0.110	no	yes
El Salvador	0.160	-0.1782	-0.338	no	yes

	SE	Temporary	$\Delta$ NRM diff	Equal sign trend	Reject H0
Argentina	-0.216	-0.036	0.179	yes	yes
Brazil	-0.726	-0.6537	0.072	yes	yes
Chile	-0.257	-0.0151	0.242	yes	yes
Mexico	-0.175	-0.1381	0.037	yes	yes
El Salvador	-0.424	-0.0664	0.358	yes	yes

	SE	Temporary	$\Delta$ RM diff	Equal sign trend	Reject H0
Argentina	-0.217	-0.094	0.124	yes	yes
Brazil	-0.781	-0.7469	0.034	yes	yes
Chile	-0.356	0.0081	0.365	no	yes
Mexico	-0.094	-0.1548	-0.060	yes	yes
El Salvador	-0.456	0.0481	0.504	no	yes

## EUROPE AND CENTRAL ASIA

	$\Delta$ NRCA				
	SE	Temporary	diff	Equal sign trend	Reject H0
Georgia	-0.403	-0.263	0.140	yes	yes
Kyrgyzstan	0.004	0.082	0.078	yes	no
Armenia	0.048	0.067	0.020	yes	no

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	$\Delta$ NRCI				
	SE	Temporary	diff	Equal sign trend	Reject H0
Georgia	0.033	0.010	-0.023	yes	no
Kyrgyzstan	0.054	0.117	0.063	yes	no
Armenia	-0.346	-0.337	0.009	yes	no

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	$\Delta$ RC				
	SE	Temporary	diff	Equal sign trend	Reject H0
Georgia	-0.047	-1.073	-1.026	yes	yes
Kyrgyzstan	-0.216	-0.519	-0.303	yes	yes
Armenia	0.819	0.193	-0.627	yes	yes

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	$\Delta$ NRM				
	SE	Temporary	diff	Equal sign trend	Reject H0
Georgia	0.323	0.409	0.086	yes	yes
Kyrgyzstan	0.126	0.019	-0.107	yes	yes
Armenia	0.216	0.486	0.270	yes	yes

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	$\Delta$ RM				
	SE	Temporary	diff	Equal sign trend	Reject H0
Georgia	0.097	0.153	0.056	yes	no
Kyrgyzstan	-0.121	-0.198	-0.077	yes	yes
Armenia	0.340	0.615	0.275	yes	yes

## Annex II. Descriptive statistics for NSE and SE

### 1. Age and Gender

Average age of employment. Latin American and the Caribbean. (Mid 1990/Mid 2010)

Mean AGE	Argentina	Uruguay	Brazil	Chile	Peru	Bolivia	Dominican Republic	Mexico	El Salvador
Starting point	38.2	39.3	34.7	37.7	36.4	35.9	35.0	35.1	35.1
Ending point	39.9	40.7	38.0	42.1	40.7	37.3	39.0	37.5	37.5

Average age of employment. Europe and Central Asia. (Starting 2000/Mid 2010)

Mean AGE	Russia	Georgia	Kyrgyzstan	Turkey	Armenia	Albania	Moldova
Starting point	38.3	47.3	35.7	35.8	43.0	29.9	30.9
Ending point	40.3	51.0	37.5	38.8	43.3	33.0	48.7

Male participation in total employment. Latin American and the Caribbean. (Mid 1990/Mid 2010)

	Argentina	Uruguay	Brazil	Chile	Peru	Bolivia	Dominican Republic	Mexico	El Salvador
Starting point	61.3%	58.6%	60.7%	66.8%	56.6%	56.8%	72.4%	60.4%	60.4%
Ending point	58.4%	55.5%	57.6%	56.9%	53.0%	55.8%	63.7%	58.8%	58.8%

Male participation in total employment. Europe and Central Asia. (Starting 2000/Mid 2010)

	Russia	Georgia	Kyrgyzstan	Turkey	Armenia	Albania	Moldova
Starting point	51.9%	51.5%	57.3%	75.4%	54.8%	50.8%	44.6%
Ending point	49.4%	49.8%	59.6%	69.7%	52.4%	55.0%	45.1%

## 2. Informality

Prevalence of Informality among Non-Standard Employees (NSE) and Standard Employees (SE). Latin American and the Caribbean. (Mid 1990/Mid 2010).

NSE	Argentina	Uruguay	Brazil	Chile	Peru	Bolivia	Dominican Republic	Mexico	El Salvador
Starting point	38.4%	45.4%	60.0%	29.2%	41.7%	19.5%	34.4%	47.4%	41.2%
Ending point	39.9%	36.5%	52.4%	25.1%	39.6%	34.9%	35.5%	50.8%	53.4%
SE	Argentina	Uruguay	Brazil	Chile	Peru	Bolivia	Dominican Republic	Mexico	El Salvador
Starting point	25.5%	48.7%	18.8%	18.8%	32.9%	30.5%	21.3%	7.1%	25.0%
Ending point	23.3%	15.0%	16.0%	14.0%	28.8%	37.2%	20.1%	7.7%	24.3%

### 3. Non-standard employment by occupational categories (ILO classification)

Prevalence of Non-Standard Employees (NSE) by occupational categories. Latin American and the Caribbean. (Mid 1990).

	Argentina	Bolivia	Brazil	Chile	El Salvador	Mexico	Peru	Rep. Dominican	Uruguay
Managers	23.3%	10.2%	27.8%	9.7%	8.8%	26.9%	13.9%	5.3%	32.8%
Professionals	59.6%	23.0%	52.5%	21.1%	15.0%	50.0%	54.3%	8.6%	28.1%
Technicians	25.4%	53.3%	32.9%	17.8%	27.8%	37.3%	20.4%	15.9%	18.0%
Clerical Support Workers	30.3%	20.2%	28.5%	12.1%	11.0%	34.4%	9.6%	13.4%	13.1%
Services and Sales Workers	32.5%	19.5%	40.1%	21.0%	27.3%	59.1%	16.8%	3.0%	12.5%
Skilled Agricultural Workers	46.0%	12.8%	72.2%	36.2%	39.7%	94.7%	12.5%	10.9%	17.6%
Craft and Related Trades Workers	31.0%	8.9%	43.1%	33.7%	43.4%	66.2%	18.8%	8.6%	15.2%
Plant and Machine Operators	18.0%	3.1%	26.6%	16.9%	20.5%	54.6%	12.0%	8.6%	18.1%
Elementary Occupations	55.0%	11.2%	56.4%	45.5%	53.8%	78.1%	28.5%	12.7%	40.1%

Prevalence of Non-Standard Employees (NSE) by occupational categories. Latin American and the Caribbean. (Mid 2010).

	Argentina	Bolivia	Brazil	Chile	El Salvador	Mexico	Peru	Rep. Dominican	Uruguay
Managers	26.1%	10.7%	15.9%	7.7%	5.2%	31.0%	17.2%	4.0%	9.3%
Professionals	60.7%	45.1%	40.6%	19.1%	27.0%	54.5%	50.5%	16.5%	48.2%
Technicians	28.8%	15.8%	30.8%	15.6%	10.9%	46.0%	19.5%	19.5%	24.5%
Clerical Support Workers	32.5%	12.6%	24.9%	16.3%	10.8%	64.5%	14.7%	9.5%	22.7%
Services and Sales Workers	33.4%	19.5%	41.1%	24.2%	22.3%	69.7%	21.3%	6.9%	20.3%
Skilled Agricultural Workers	57.5%	25.4%	46.7%	42.9%	33.6%	93.6%	17.7%	12.3%	11.4%
Craft and Related Trades Workers	30.4%	8.3%	24.7%	27.3%	43.0%	86.2%	16.5%	5.9%	6.9%
Plant and Machine Operators	16.8%	7.2%	21.3%	16.2%	14.5%	49.8%	15.3%	2.5%	5.8%
Elementary Occupations	61.3%	20.4%	26.0%	38.1%	71.1%	87.2%	28.2%	18.4%	35.0%

Prevalence of Non-Standard Employees (NSE) by occupational categories. (Mid 1990). Europe and Central Asia (Starting 2000).

	Albania	Armenia	Georgia	Kyrgyzstan	Moldova	Russia	Turkey
Managers	5.7%	9.1%	9.4%	3.3%	6.3%	2.4%	10.7%
Professionals	9.9%	16.9%	11.6%	7.3%	5.5%	7.9%	14.7%
Technicians	6.4%	18.6%	13.1%	6.7%	3.3%	5.5%	12.4%
Clerical Support Workers	1.2%	8.7%	15.6%	9.2%	2.4%	5.4%	14.3%
Services and Sales Workers	6.5%	44.1%	22.4%	16.8%	8.4%	3.6%	18.0%
Skilled Agricultural Workers	38.1%	50.0%	47.7%	19.2%	14.8%	0.8%	37.0%
Craft and Related Trades Workers	10.3%	30.6%	31.4%	17.1%	3.2%	2.1%	31.3%
Plant and Machine Operators	8.7%	23.6%	41.0%	10.2%	5.1%	1.9%	15.3%
Elementary Occupations	6.7%	29.3%	35.3%	12.9%	12.6%	10.7%	56.0%

Prevalence of Non-Standard Employees (NSE) by occupational categories. (Mid 1990). Europe and Central Asia (Mid 2010s).

	Albania	Armenia	Georgia	Kyrgyzstan	Moldova	Russia	Turkey
Managers	5.7%	1.6%	0.4%	5.6%	3.5%	1.2%	2.0%
Professionals	3.7%	14.3%	3.6%	20.8%	21.6%	5.8%	9.2%
Technicians	5.4%	7.9%	6.8%	12.4%	12.1%	3.3%	5.0%
Clerical Support Workers	4.4%	3.2%	6.2%	12.6%	11.5%	3.3%	4.3%
Services and Sales Workers	6.8%	6.4%	9.6%	7.8%	2.7%	2.3%	9.8%
Skilled Agricultural Workers	12.4%	18.3%	26.3%	7.3%	1.6%	0.8%	45.5%
Craft and Related Trades Workers	10.5%	17.3%	13.8%	5.1%	2.9%	2.5%	22.4%
Plant and Machine Operators	3.4%	6.6%	7.5%	7.3%	2.8%	1.2%	6.9%
Elementary Occupations	8.5%	16.7%	21.7%	7.4%	9.5%	11.8%	35.1%