



TRANSITIONS FROM THE FORMAL TO THE INFORMAL SECTOR IN LATIN AMERICA



Luis Beccaria*, Nahuel Mura* y Sonia Filippetto*¹

* Universidad de General Sarmiento, Argentina

Recibido 19 de marzo de 2024; Aceptado 20 de abril de 2024

Resumen

En la literatura se ha discutido ampliamente si la informalidad es un estado excluyente o refleja decisiones voluntarias resultantes del atractivo que ésta pueda tener para quienes en ella participan. Este trabajo contribuye a dicha discusión a partir del análisis de los perfiles y principales características de quienes transitan desde empleos formales a informales y de los efectos que estos movimientos tienen en los ingresos relativos, mediante el análisis de datos de encuestas de hogares de Argentina, Brasil, México y Perú. Los principales hallazgos sugieren que la composición de los flujos de quienes pasan a una posición de trabajador informal por cuenta propia es más compatible con la perspectiva excluyente, mientras que los que transitan para ser empleadores informales tienden a tener un perfil similar de los que permanecen en el sector formal, resultado que es consistente con la visión voluntaria. El comportamiento de los ingresos también apoya la visión de la heterogeneidad, ya que, respecto a quienes permanecen en el sector formal, quienes transitan a puestos por cuenta propia reducen sus ingresos, mientras que los que pasan a un puesto como empleador informal, lo aumentan o no experimentan cambios.

Palabras clave: Mercado de trabajo, Sector informal, América Latina

Clasificación JEL: N36

Abstract

It has been widely discussed whether informality is an exclusionary state or reflects voluntary decisions resulting from the attractiveness it might have. This paper contributes to this discussion by analyzing the main patterns and characteristics of those who transition from formal to informal sector jobs and the effects of these movements on relative earnings by examining data from household surveys for Argentina, Brazil, Mexico, and Peru. The main findings suggest that the composition of the flows of those moving to informal self-employment is more compatible with the exclusionary perspective, while those transitioning to become informal employers tend to have a profile similar to those who remain in the formal sector, aligning with the voluntary view. The behaviour of earnings also supports the heterogeneity view: those becoming self-employed workers experienced a relative loss of income, while those moving to a position as an employer generally experienced a relative increase, in comparison to those who remained in the formal sector.

Keywords: Labor market, Informal sector, Latin America

JEL Classification: N36

¹ Correos de contacto: lbeccari@gmail.com; nmura.uoc@gmail.com; sfilippetto@campus.ungs.edu.ar

1. Introduction

Informality is a key issue in the analysis of labor markets of low- and medium-income countries, and of Latin America in particular. The presence of a sizable proportion of informal activities and informal employment not only makes their occupational structure more heterogeneous but also impacts the overall labour market functioning. It has also made it necessary to discuss many other empirical and conceptual issues deeply influenced by such features, for example, the extension and quality of social protection. Another issue concerns the drivers that explain such an important presence of informality and the dynamics it has in different countries and/or moments. The traditional and original view that informality appeared as a consequence of the limited capacity of many economies to create enough employment was challenged by the perspective that emphasized the attractiveness of working in informality. The discussion revolved around whether, and to what extent, jobs in informality are involuntary — a destination of last resort due to the lack of formal employment opportunities — or voluntary, meaning that many of those working in these jobs could view them as a desirable alternative.

This paper contributes to the literature on the drivers of informality by analyzing the main patterns and characteristics of those who transition from jobs in formal firms (jobs of the formal sector) to occupations in the informal sector, as well as the effects of these movements on relative earnings. Even when focusing on the rationale of employment in sectorial terms, the distinction between formal and informal jobs will also be considered for wage earners in both sectors. Unlike most existing studies, which deal with individual national cases, this paper adopts a regional perspective and discusses evidence from Argentina, Brazil, Mexico, and Peru. The analysis will utilize microdata from the household surveys of these countries.

This approach will inform to what extent those working in the formal sector moving to informality differ from those remaining in formality and, especially, in what characteristics (personal and of pre-movement formal sector job). If the flows of workers of the formal sector transiting to informality are mainly made up of persons with larger (or similar) resources and experience than those remaining in formality it would be possible to consider that voluntary movements prevail. Similarly, moving to informality is associated with similar or larger earnings than staying in the formal sector.

The document is structured as follows: In section 1, the document provides a brief introduction on the ideas / concepts of both the informal sector and informal employment. Section 2 looks into the drivers of informality, exploring different conceptual perspectives in 2.1 and summarizing various empirical approaches in 2.2. Section 3 outlines the methodology employed in the research. The subsequent section, Section 4, offers evidence on the structure of employment and the main patterns of mobility. Section 5 investigates the profile of formal sector workers transitioning to the informal sector, while Section 6 focuses on the impacts of this transition on earnings. Finally, Section 7 provides conclusions, summarises key findings, and discusses implications.

2. Informal sector and informal employment

The literature on labor informality in developing countries, and in Latin America in particular, incorporates into the analysis of labor markets the relevance of the large set of small productive units, many of them self-employed, that characterize their productive structures. Specifically, it has been pointed out that they make up the "informal sector" of the economy, a term that originates in a study by Hart (1973) for Ghana, but which has since been contemplated in different studies and had an important development in Latin America².

A central aspect of this conceptualization is that informal sector units operate under patterns that are different from those of a typical capitalist enterprise, i.e., the pursuit of accumulation and separation between capital and labor.

However, this approach to identifying informality, sometimes referred to as the "productive" approach, was not the only one considered. Others have stressed that non-compliance with the usual regulations (fiscal and social security) should be the criterion used to identify informal productive units –the so-called, "legalist" approach– (Tokman, 1977; De Soto, 2000).

There has been a discussion, which we cannot summarize here, regarding the relevance of both approaches to informality as some of

² In particular, the studies promote the ILO's Regional Program of Employment for Latin America and the Caribbean (PREALC). For example, PREALC (1978, 1987); Tokman (1977, 1987) and Vergara, et. al. (1990).

those proposing the first approach consider that tax evasion may be a characteristic but not necessarily an intrinsic aspect.

Nevertheless, the characteristics of the productive unit are not the only manifestation of the phenomenon of informality which is relevant for the analysis of the labour market. Employment or employment relationships can also be formal or informal. The notion of "(informal employment) implies looking at the characteristics of employment" (Cazes and Verick, 2013: 64) and not at the productive unit, which is the relevant unit of analysis to identify the informal sector. Informal jobs would be those that are not covered by the rules established by labor or social security legislation.

Both perspectives are interrelated as most informal jobs tend to correspond to occupations in the informal sector, although there are such jobs in formal firms, as well as formal employment in the informal sector. This document focuses mainly on the perspective of the formal/informal sector but will consider complementarily that of the formal/informal employment.

3. The drivers of informality

3.1. The different conceptual views

In the early conceptualizations, the informal sector in developing countries was considered a residual sector resulting from the lack of sufficient jobs in the structured/formal economy (Lewis, 1954; Harris and Todaro, 1970; Hart, 1973; PREALC, 1978). This perspective consequently associates informality with exclusion. As indicated by Guerguil (1988: 60) "...the factors responsible for the emergence of the informal sector are closely related to the labour market and the distribution of income. The informal sector is seen as being the result of a manpower surplus in respect of employment in the formal sector..."

Consequently, part of the labor force of developing countries could not find wage employment in typically capitalist enterprises and worked in small, in many cases, single-person, low-productivity productive units. As mentioned before, these units make up the "informal sector" – and function as a kind of refuge or alternative to unemployment. As expressed by the just quoted author, these units are "... organized in accordance with a particular economic rationale, whose object is to guarantee the subsistence of the family group. This rationale thus differs

from that of the formal (capitalist) sector, whose prime motivation is accumulation.” (Guerguil, 1988: 60).

Subsequently, another view on informality was developed suggesting that individuals voluntarily choose to work in the informal sector –especially as independent workers– for different reasons. For example, to escape taxes and regulations (De Soto, 1987; Bosch and Maloney, 2010); or to benefit from certain features of informality, e.g., its flexibility or the possibility of “being their own boss”, or due to “family tradition” (Fields, 1990; Perry et. al. 2007). Sometimes it was even suggested that employees may choose to have informal jobs (both in the formal or informal sector) as they could avoid paying social security contributions given an uncertain old-age income in the distant future (Perry et. al. pp. 46). Workers may also voluntarily choose the informal sector as it would allow them to accumulate experience or training, particularly in the case of young low-skilled workers or unskilled older individuals (Jütting et. al, 2008).

But simultaneously with the discussion on which of those approaches is more relevant in developing countries in general, and in Latin America in particular, the idea of heterogeneity was also put forward. According to this perspective, some economic units and/or jobs appear to have resulted from exclusion, while others could be more accurately described as voluntary (for example Fields, 2005; 2019; Günther and Launov, 2012). As indicated by Ulysea (2018), these views are not competing but complementary frameworks for understanding informality, as they simply reflect the underlying heterogeneity in the informal sector.

Consequently, the informal sector has its internal duality: some informal activities are preferable to formal sector jobs, and some are not. The first segment is sometimes referred to as “upper-tier” informal activities and the second as “easy-entry.” While the upper-tier activities would be voluntary, the easy-entry jobs are better understood as a survival strategy for those excluded from the formal sector. This position has the potential to rationalize the different findings about the informal sector: wide dispersion of earnings and well-being among informal workers and high mobility across sectors in some cases but not others.

3.2. Empirical analyses on the drivers to informality

The empirical literature on the drivers of informality in Latin America is extensive and includes studies based on different views on this phenomenon. The methodological approaches also diverge.

Some of these studies resort to the analysis of the absolute and relative movements of formal and informal sector employment during the business cycle. For example, using data on changes in the proportion of total employment, Galli and Kucera (2003) found evidence that own-account workers and jobs in small businesses acted as shock absorbers for employment in large firms in Latin America during the 1990s. Beccaria et al (2021) also found a countercyclical movement in the share of informal sector employment in Argentina. However, they also point out that the absolute size of informal sector employment rose during expansions and fell in some recessions and, on the other hand, transitions between jobs of both sectors did not have a clear pattern. This was considered to suggest some degree of heterogeneity in informality. Results that were to some extent similar had been previously found by Bosch and Maloney (2010), as they observed a countercyclical movement in the relative size of the informal sector employment in México and Brazil, but procyclical movements in both flow from informality to formality but also from formal sector jobs to informal sector jobs. Other empirical analyses were based on responses to questions regarding the reasons for becoming independent workers. Perry et al (2007), in a World Bank study with data from four countries, stressed the large share of answers that reflected voluntary justifications as “autonomy / no boss”, “flexible hours” or “family tradition”. However, they also found that most of those working as informal wage earners were in such conditions due to a decision of the employer.

The same World Bank study also provides additional evidence of a similar nature that supports the notion of independent jobs being voluntary as it shows, for the same four countries, that a large proportion of these workers (over 70%) prefer such types of jobs. However, such figures are not much different from those found in developed countries, where the actual share of these workers in total employment is small. Nevertheless, even when employees (formal or informal) are interviewed, the preference for independent work seems high in those countries (between 35% and 55%). Using these questions on the preference for formality, models of queuing were estimated for some Latin American countries, i.e. aimed at evaluating if there are workers with informal jobs / informal sector jobs (or some of them) who wish to work formally and

there are similar workers who got a formal job. Soares (2004) for Brazil and Contreras et. al (2017) for Chile did not reject the queuing hypothesis; more specifically, the results of the latter one support the view that "...the Chilean labour market is heterogonous with wage work, voluntary self-employment and involuntary self-employment" (p. 496).

Another similar study for Mexico, however, provides quite different results (Duval-Hernandez, 2020; 2022). This study indicates that around 80 per cent of the respondents who lack social security coverage would prefer to have a job with such benefits, even if that entailed having to pay the corresponding contributions for them. However one cannot determine whether this reflects a preference for social security benefits alone or, more generally, a preference for the entire set of characteristics that accompany a formal job. The figure indicates that a large fraction of urban informal workers in Mexico are not in such a situation voluntarily.

One of the other approaches used to evaluate the drivers to informality which will be employed in this paper, is based on the analysis of the profiles –in terms of a series of personal and occupational characteristics– of those initially in formal sector jobs that transition to positions in the informal sector. This procedure offers some evidence on whether the composition of this group is compatible with the view of informality as an exclusionary state or reflects voluntary decisions resulting from the attractiveness it may have for those individuals. It is expected that those formal wage earners in the formal sector moving voluntarily to informal sector jobs would have accumulated more experience and resources than those transiting involuntarily as such resources and experience would facilitate setting up a small business.

Various studies for Latin America have shown that several individual characteristics –such as gender, age, education level, or income level– are associated with the probability of making different types of transition. Just to quote a couple of examples, Cea and Contreras (2008) for Chile and Calderón-Madrid (2000) for Mexico suggest that individuals who have more years of education are less likely to go from salaried work to self-employment, that is, they are more likely to remain as wage earners. Conover et al. (2022) point out that the composition of the flows from the formal sector according to schooling in Mexico contradicts a narrative of voluntary exit from formality driven by workers who use skills and capital gained in the formal sector to open their own firms.

For Indonesia, Sugiharti et al. (2022) found that experienced workers tend to transition into formal and informal jobs more than

workers with no employment experience. Skill has also proved to be a relevant variable; Delaporte and Peña (2023) show that workers in routine manual formal employment in Chile become increasingly unemployed or use informality as a buffer against job losses.

Age also influences the probability of transitioning to self-employment; Cea and Contreras (2008) showed that, in Chile, age has a positive and decreasing impact. Consistent with these results, various studies show that younger workers generally shift more frequently than older ones from the formal to the informal sector (Borjas, 2013; Ehrenberg and Robert, 2012; Sugiharti et al. 2022), although this seems to be associated with the more general characteristics of younger persons of having larger labor mobility than older persons.

The study just quoted for Chile also indicates that women are less likely to transition from one salaried position to another on their own account. The greater chance that men have of entering self-employment is also found by Chong et al. (2008) for Peru and by Tansel and Ozdemir (2014) for Egypt.

Regarding income level, Gomes et al. (2020) found that in Brazil, low-income workers in the formal sector are the most likely to move to informality.

In more general terms, Mandelman and Rojas (2007) found, for Argentina, that the composition –in terms of the variables just discussed– of formal sector workers who transitioned to the informal sector seems more coherent with the exclusionary view.

The study of earning differences between formal and informal jobs has been widely analyzed. The existence or not of such gaps provides relevant evidence on the drivers of informality as the presence of differences against informality may suggest involuntariness. Therefore, it makes sense to focus on the gains or losses of income associated with each type of transition. Identifying robust evidence of formality premia –or the lack of it– faces some difficulties, as the gaps in earnings between formal and informal jobs may derive from differences in individual characteristics of the workers, some of them being difficult to control in statistical analyses. However, various studies that use approaches that minimize the effect of variables which are not controlled for, such as those resorting to data on transitions or fixed effects models, tend to indicate the presence of such premia to formality. For example, Duryea et al. (2006) found, for Argentina, Mexico, and Venezuela, that workers who moved from formal wage employment to informal wage employment, on average, experienced a decrease in income. For Argentina, Beccaria and Groisman (2015) and Beccaria et al. (2022) find that those who move from

formal sector jobs to informal sector jobs reduce their earnings more (or increase them less) than those remaining in the formal sector. They also showed that negative premia to informality differ among types of informal sector occupations and are even non-significant for some of them. In Beccaria and Groisman (2015), similar results regarding gains in relative incomes are obtained when movements from informal sector jobs to formal sector jobs are analyzed. Similar results are reported by Engbom et al. (2022) for Brazil which indicate that the earning changes of workers who switch from formal to informal (from informal to formal) employment are relatively negative (positive). However, not all evidence points to the existence of negative premia to informality. For example, Pratap and Quintin (2006) indicate that some estimation procedures (propensity score matching) show no statistically significant difference between formal and informal earnings for Argentina.

One point to be cautious when considering the existence of negative earnings premia for independent workers of the informal sector, even in the cases where the evidence is deemed robust, is that the lower incomes may, in part, be viewed as a trade-off for non-pecuniary benefits.

4. Methodology

4.1. The identification of informal sector employment and informal employment

As indicated, this paper primarily focuses on examining the factors driving workers to transition from the formal to the informal sector. However, we will also explore the differentiation between formal and informal workers, particularly among wage earners employed in the informal sector.

The categorization used to operationalize employment in the formal and informal sectors, along with their respective components, follows the “productive” approach, as discussed in Section 1. In identifying informal sector employees, we primarily considered the size of the establishment, specifically those working in small establishments, a traditional procedure that had prevailed in Latin America. As a result, we do not adhere to the criterion that has been increasingly adopted in the region, especially by the regional office of ILO, which is based on the legal situation of the productive unit (whether it is registered in official records, fiscal or otherwise) and/or bookkeeping practice. It is worth

noting that “there was no agreement at the 15th ICLS as to which of the two approaches was preferable.” as a result “The definition in the 15th ICLS resolution, therefore, incorporated both approaches”. We view “the informal sector as constituting a particular form of production, in terms of the way the enterprises are organized and carry out their activities [and, consequently] the informal sector is not identical to the unregistered sector.” (ILO, 2013: 18). Furthermore, the statistical sources used in this paper do not provide information on the registration status of the productive unit for two of the countries under consideration³.

This last reason led us to refrain from adopting the 15th ICLS recommendation which suggests using registration of the unit and/or bookkeeping practices to differentiate between formal and informal sector non-wage earners.⁴ Instead, we opted for the traditional empirical approach, identifying own-account workers based on their educational level rather than relying on national legal registration criteria. Nevertheless, we utilized this variable to distinguish self-employed workers within the informal sector in all countries but Argentina. For employers, we also resorted to the size of the establishment, reiterating the approach used for employees.

Consistent with international recommendations, domestic workers constitute a separate category. Table 1 summarizes the aggregates used in the rest of the paper.

To distinguish between formal and informal employees, we adhere to the recommendations of the International Conference of Labour Statisticians. Empirically, the commonly employed criterion in the region identifies informal employees as those who are not affiliated with social security systems by their employers. This situation implies the lack of protection sanctioned in labor legislation. The specific variables included in each national survey to assess this dimension differ among countries, but the definitions employed in each case, as outlined in Table 1, aligned with the aforementioned general approach for classifying formality and informality among wage earners.

³The Argentinian household survey inquiries about neither firm registration nor bookkeeping. In the case of Brazil, the firm registration question is only asked to self-employed and employers.

⁴ Although, specifically, the recommendations indicate that “For operational purposes, informal own-account enterprises may comprise, depending on national circumstances, either all own-account enterprises or only those which are not registered under specific forms of national legislation” (ILO, 1993: 53)

Characteristics of the main occupation were used to classify workers into each group.

Table 1. Employment Classification

EMPLOYMENT IN THE FORMAL SECTOR (EFS)
Non-salaried (FNW)
Employers in firms with more than 5 workers
Self-employed workers with a high level of education (professionals)
Formal employees in firms with more than 5 workers (FWR)
Informal employees in firms with up to 5 workers (FWNR)
EMPLOYMENT IN THE INFORMAL SECTOR (EIS)
Non-salaried (INW)
Employers in firms with up to 5 workers
Self-employed workers with incomplete education at the tertiary level or less
Registered
Non - registered
Formal employees in firms with up to 5 workers (IWR)
Informal employees in firms with up to 5 workers (IWNR)
DOMESTIC SERVICE EMPLOYMENT (DS)

4.2. The empirical approach

The paper provides evidence for the discussion of the rationale of the informal sector, and informal employment, focusing on the analysis of those initially in the formal sector –specifically formal wage earners in the formal sector– and distinguishing between those staying in those positions and those moving to the informal sector. Two types of evidence are studied, on the one hand, the profiles of these groups of workers –in terms of a series of personal and occupational characteristics–, and the second, the relative change in earnings resulting from the movement.

Even if only a small portion of the informal sector workers transition to the informal sector each period, we believe that analyzing the characteristics of those making this move in comparison to those who remain in the formal sector can provide valuable insights into the factors influencing the transitions from the formal to the informal sector.

Concerning the evidence provided by the analysis of the profiles of individuals transitioning to the informal sector, the aim is to assess whether the composition of this group aligns with the view of the

informal sector as an exclusionary state or if it reflects voluntary choices driven by the perceived attractiveness it holds for these individuals. It is expected that formal workers in the formal sector who willingly move to informal sector occupations would have accumulated more experience and resources than those moving involuntarily as those attributes would facilitate setting up a small business. The higher resources would also make the loss of protection associated with such movement would be less relevant to them. Empirically, our analysis is predicated on the notion that workers initially in the formal sector who transition to informality but possess fewer resources and less experience than those who remain in the formal sector are more likely to experience involuntary moves, as opposed to those who also transition to the informal sector but have similar (or “better”) resources and experiences of those who stay in the formal sector.

The second type of evidence used in this paper comes from the evaluation of the impact on earnings resulting from the transition from the formal to the informal sector. It is expected that voluntary transitions would, on average, be more strongly associated with improvements in relative incomes than involuntary transitions.

To analyze the profile of workers initially in the formal sector who transition to the informal sector, we compute multinomial selection models to estimate the impact of various variables on the probability of transitioning from the formal to the informal sector, including to specific groups of jobs within the informal sector.

Specifically, a multinomial logistic model was estimated, which can be described as follows:

$$P_{ij} = \frac{e^{X\beta_j}}{\sum_{s=1}^J e^{X\beta_s}} \quad \text{and} \quad \sum_j P_{ij} = 1 \quad [1]$$

In general terms, the model estimates the probability of obtaining the result j , for $j=1\dots J$, relative to the probability of occurrence of result i , considering the combined effect of different independent variables. X is the matrix of independent variables ($= x_1\dots x_k$) referring to the personal and occupational characteristics of the workers in the initial period.

This paper does not report β nor the risk ratio, but the average marginal effect on the overall sample that each variable (relative to the base category, in the case of categorical variables) has on the probability of occurrence of result “ j ”.

The base result in the models is to remain as a formal salaried worker (FWR), while the other "j" results encompass transitions from formality to various informal sector occupations. Consequently, the models will not contemplate all workers in formal jobs in the initial period, but only those occupied as formal wage earners. This group made up the larger part of all formal occupations. Furthermore, this decision allowed us to focus on those who initially are in jobs not only formal from the perspective of the characteristics of the firm but also regarding the nature of the labor relation.

Initially, two models were computed according to the destinations considered. One of them estimates the effects of the variables on the probability that a FWR worker moves to any type of informal sector job. This case contemplates only two results: remaining as FWR (base result) and transiting from a FWR occupation to an informal sector occupation. Consequently, the model [1] becomes a standard logistic regression (binomial). The other model will also consider the probability that a FWR transitions to each of the three types of jobs of the EIS as classified in Table 2 (IWR, IWNE, INW), relative to the probability of remaining as a FWR.

The models were estimated for the group of workers of the formal sector in the initial period that remain in such occupations and for those who transition to any informal sector job 12 months later. Those who moved to the domestic service, to unemployment, or left the labor force, were excluded.

Given that the INW category excludes professional self-employed individuals, transitions from formal salaried workers with that level of education to a self-employed INW position are not possible. To prevent any potential bias in the estimations resulting from this classification criterion, the analysis will exclude workers with complete tertiary education.

To assess the impact on earnings when the transition from the formal to the informal takes place, we estimated the following model for all formal wage earners within the formal sector in the initial period who subsequently transitioned to an informal sector job:

$$\ln w_{i1} - \ln w_{i0} = \alpha + c_{ij} \mu_j + X_i \beta + \varepsilon_i \quad [2]$$

where w_{it} is the real wage (monthly) of individual "i" in each of the successive periods (t=0,1); " c_{ij} " is a dummy variable that indicates the "j" alternatives regarding movements between formal and types of informal sector jobs, remaining as a formal employee in the formal sector being

the base category –FWR-FWR–. Hence, μ_j , the coefficients of interest, reflect the impact that moving to informality has on relative earnings changes. As in [1], X is a vector of other independent variables referring to the personal and occupational variables of the worker in period 0.

5. Data employed.

The empirical analysis employs data from regular household surveys of Argentina, Brazil, Mexico, and Peru which are carried out by national statistical offices. These surveys do not offer longitudinal microdata that would enable the tracking of individuals' trajectories across multiple observations. However, given the rotation structure of their samples, it is possible to produce panels using the microdata of regular cross-section surveys. These panel datasets enable us to compare an individual's status in each period with their status 12 months later, thus identifying the transitions between different employment conditions. The annual panels for each country were pooled together, and estimates were produced from these pools. The exception is Peru, whose statistical institute produced longitudinal microdata for 5-year periods, each of which followed persons during several observations. To make this data comparable with that of the other countries, we resort to a pool of annual panels obtained by selecting annual transitions from each 5-year panel.

The countries under consideration are not the only countries in Latin America with household surveys that allow the construction of panels for assessing transitions. We also produced similar panels for Costa Rica, Ecuador, and Paraguay. However, the number of observations of the pools of these panels was insufficient to estimate the models. In any case, the four chosen cases include some of Latin America's larger economies and a variety of different labour market structures. The periods covered by each panel are different due to information availability and comparability.

Finally, we used data only for urban areas for two reasons; on the one hand, Argentina's household survey does not cover non-urban areas and, on the other hand –and more importantly– the notion of the informal sector is mainly relevant (has been developed) for urban labour markets. The specific surveys employed in each country are indicated in Table 2, which includes information on the periods covered by the pool of yearly transitions and the specific criterion used to identify informal wage earners in each country.

Table 2. Surveys by country, periods covered and main definitions

Country	Survey	Period covered	Definition of not-registered (informal) wage earners
Argentina	Encuesta Permanente de Hogares (EPH)	2003-19	Those whose employers do not make payroll deductions for social security
Brazil	Pesquisa Nacional por Amostra de Domicilios Continua (PNADC)	2012-19	Those who do not sign a labor contract ^{2/}
México	Encuesta Nacional de Ocupación y Empleo (ENOE)	2005-19	Those who are not affiliate to a health care social security institution
Peru	Encuesta Nacional de Hogares (ENAHO) [Panel survey]	2007-19	Those who are not affiliated to a pension system.

1/ Even if the Argentina survey presently covers 31 urban centers, data employed correspond to 28 urban centers that are included since 1995. 3/ Due to high non-response rates in the PNAD survey for the variables relevant to define the categories used in the paper, six out of the total of 28 year-to-year panels had to be excluded: those whose initial quarters were the following: IV of 2014; I, II and IV of 2015, and II of 2016 2/ Employees were considered as formal if they have signed a labor contract ("trabajador con carteira assinada") is the traditional criterion employed in Brazil

6. Informality in Latin America

This section will briefly describe, for the four analyzed countries, the structure of employment and the main patterns of mobility in terms of formal/informal groups of workers identified in the previous section. The importance of informality in the region can be observed in Table 3, which indicates that all jobs in the informal sector account for around 40% to 60% of total employment, with some differences between countries.

Approximately half of the informal sector employment (around 20% of total occupation) corresponds to non-salaried workers (self-employed and employers); in Peru, they even represent two-thirds of all workers in the informal sector. Most of the self-employed are not legally registered. Domestic service's share is below 8%, being larger in Argentina than in the other countries. The composition of the formal sector also differs to some extent among countries.

Table 3. Composition of the formal and informal sector and domestic service by country.

	ARGENTINA		BRAZIL		MEXICO		PERU	
	2003	2019	2012	2019	2004	2019	2007	2019
FORMAL SECTOR	53.5	55.7	61.0	58.0	51.8	53.8	41.7	46.7
Non-salaried	4.0	5.6	3.6	5.7	3.8	4.2	5.8	6.5
Formal employee	33.1	40.7	48.7	43.8	37.3	39.6	22.7	27.1
Informal employee	16.4	9.4	8.7	8.4	10.7	10.0	13.2	13.1
INFORMAL SECTOR	39.5	36.8	32.0	35.3	43.7	41.7	53.5	50.3
Employers	18.9	19.5	18.3	20.8	17.7	17.4	28.1	25.4
Self-employed	0.0			3.9	4.0	5.0		3.0
Registered	0.0			16.9	13.7	12.4		22.4
Non-registered	2.9	3.0	2.6	3.0	4.1	4.1	5.2	4.6
Formal employees	3.7	3.8	4.0	4.2	2.4	1.8	2.0	1.4
Informal employees	12.4	10.0	5.6	6.2	13.9	14.6	10.5	14.0
Family worker	1.6	0.6	1.4	1.2	5.6	3.7	7.6	4.9
DOMESTIC SERVICE	7.0	7.5	7.0	6.7	4.5	4.6	4.8	3.0
TOTAL	100.0							

The share of all informal wage earners, encompassing both the formal and the informal sector, in total employment in 2019 is relatively large. It varies from 14% in Brazil to nearly 30% in Peru. In contrast, all formal wage earners (excluding those in domestic service) make up approximately 45% of total employment (less than 30% in Peru). Regarding the transitions between categories, Table 4 shows the distribution of those employed in the different groups in the initial period (t1), according to the position they occupy one year later (t2). As indicated above, the tables resulted from pooling the mobility matrices of all the yearly panels of the studied periods. The mobility tables presented in this section exclude workers with tertiary education, as mentioned in the methodology and data section.

Even if these tables do not refer to total labor mobility (which should contemplate intra-groups movements, between specific jobs), they show that countries with large proportions of persons working in the informal sector and informal occupations exhibit higher mobility than

those where formality prevails. Precisely, the category with the highest retention rate is FWR (between 80 and 90%). The proportion of stayers in the informal sector positions is lower- around 40%/60% in most countries. Among them, it is worth stressing that the proportion of stayers among unregistered self-employed is larger than among registered self-employed or employers. However, remaining in the non-wage-earning categories does not mean that a person stays in the same "business", as he/she could have changed economic sector and/or location. In any case, the relatively reduced retention of registered self-employed workers and, simultaneously, the large proportion of them moving to non-registered occupations, suggests that the formalization of the activity may be unstable. Consequently, some of the transitions from registered to non-registered self-employed positions presented in the tables might include a shift in the business status, which may or may not coincide with a change in the industry or economic sector itself. This assumption appears to be supported by the observation that the absolute number of those involved in this transition across each country is similar to the number of individuals undergoing the reverse transition (from a non-registered to a registered self-employed job).

Transitions that are perhaps the most relevant to this paper are those occurring from formal sector wage-earning jobs to non-wage jobs in the informal sector. As mentioned above, the core of the discussion on the drivers to informality revolves around the factors driving the transitions to self-employment. As it appears in the mobility tables, the proportion of those initially FWR that make this movement never exceeds 2% to 5%, and they mainly transition to unregistered self-employment positions.

Table 4. Transitions of the formal and informal sector and domestic service by country.

Argentina										
t	t+1	<i>Formal sector</i>			<i>Informal sector</i>				<i>Domestic Service</i>	
		Non-salaried	Registered employee	Unregistered employee	Employers	Self-employed	Registered employees	Unregistered employees		Family worker
FORMAL SECTOR										
	Non-salaried	51.7	7.4	5.4	16.1	13.1	1.4	2.8	1.9	0.2
	Formal employee	0.3	88.8	3.2	0.2	2.1	3.5	1.5	0.0	0.4
	Informal employee	1.0	17.8	47.3	0.8	11.5	2.0	16.1	0.3	3.2
INFORMAL SECTOR										
	Employers	5.0	3.6	3.0	36.7	42.8	1.7	5.7	1.0	0.5
	Self-employed	2.8	3.5	5.4	5.7	69.3	1.2	9.2	1.0	1.9
	Formal employee	0.3	29.0	3.0	1.2	4.5	52.2	8.3	0.2	1.2
	Informal employee	0.5	7.8	16.6	1.7	19.1	5.3	45.0	1.0	3.0
	Family worker	3.4	4.5	5.3	5.5	34.6	0.9	18.0	26.1	1.8
DOMESTIC SERVICE										
		0.1	2.2	3.7	0.2	4.6	0.7	3.7	0.2	84.7
TOTAL										
		1.7	39.5	10.1	3.0	21.1	5.2	10.2	0.6	8.6

Table 4. Transitions of the formal and informal sector and domestic service by country (continues)

Brazil											
t	t+1	Formal sector			Informal sector					Domestic Service	
		Non-salaried	Registered employee	Unregistered employee	Employers	Self-employed		Registered employees	Unregistered employees		Family worker
						Registered	Non-registered				
FORMAL SECTOR											
	Non-salaried	61.0	6.1	3.8	13.7	5.2	5.4	1.4	1.7	1.5	0.4
	Formal employee	0.5	83.1	4.1	0.3	0.7	4.0	3.7	1.8	0.2	1.6
	Informal employee	1.4	28.4	39.8	0.7	1.7	11.3	2.6	10.3	1.0	2.8
INFORMAL SECTOR											
	Employers	7.1	4.6	2.1	46.3	13.5	18.7	2.0	3.7	1.3	0.8
	Self-employed										
	Registered	3.5	6.1	2.5	8.4	48.8	23.8	1.9	3.1	1.1	1.0
	non-registered	1.1	7.3	3.8	2.5	6.0	67.8	1.2	6.3	1.7	2.3
	Formal employee	0.7	31.4	3.2	1.1	1.5	5.5	47.5	5.9	0.5	2.8
	Informal employee	0.8	11.7	9.9	1.8	2.1	21.4	6.2	41.1	1.9	3.1
	Family worker	1.1	4.1	3.8	1.9	3.6	18.2	1.8	7.8	55.3	2.4
	DOMESTIC SERVICE	0.2	8.3	2.5	0.2	0.5	6.4	2.0	2.8	0.5	76.5
	Total	2.0	40.0	6.6	3.0	5.0	21.9	5.1	6.6	2.1	7.8

Table 4. Transitions of the formal and informal sector and domestic service by country (continues)

México											
t	t+1	Formal sector			Informal sector					Domestic Service	
		Non-salaried	Registered employee	Unregistered employee	Employers	Self-employed		Registered employees	Unregistered employees		Family worker
						Registered	Non-registered				
FORMAL SECTOR											
	Non-salaried	31.5	6.6	6.7	26.5	7.2	13.4	0.7	5.3	2.0	0.1
	Formal employee	0.2	82.4	6.1	0.6	0.7	2.2	2.2	4.5	0.4	0.7
	Informal employee	0.4	19.9	39.5	1.7	1.6	7.8	1.4	24.1	2.0	1.6
INFORMAL SECTOR											
	Employers	3.0	3.6	4.0	35.6	10.7	27.7	0.8	12.4	1.9	0.3
	Self-employed										
	Registered	0.7	3.9	2.9	9.1	37.9	31.5	0.7	8.0	4.1	1.1
	non-registered	0.4	2.9	3.6	5.6	7.8	63.3	0.3	11.8	2.8	1.5
	Formal employee	0.3	37.2	7.3	1.9	1.9	3.5	28.3	17.0	1.2	1.5
	Informal employee	0.2	7.2	13.2	2.6	2.2	13.3	1.8	54.0	3.7	1.7
	Family worker	0.2	2.4	4.5	1.6	3.9	10.7	0.4	14.1	61.1	1.0
	DOMESTIC SERVICE	0.1	4.4	3.4	0.4	1.1	6.1	0.5	6.7	1.1	76.3
	Total	0.6	27.8	9.7	4.4	5.2	21.4	1.8	18.5	5.9	4.7

Table 4. Transitions of the formal and informal sector and domestic service by country (end)

Perú											
t \ t+1	Formal sector				Informal sector					Domestic Service	
	Non-salaried	Registered employee	Unregistered employee	Employers	Self-employed		Registered employees	Unregistered employees	Family worker		
					Registered	Non-registered					
FORMAL SECTOR											
Non-salaried	25.0	4.2	1.3	27.0	3.1	33.4	1.1	2.0	3.0	0.0	
Formal employee	0.8	77.0	6.7	0.8	0.6	6.0	4.1	2.7	0.8	0.5	
Informal employee	1.2	15.4	36.5	1.6	1.0	15.5	1.9	19.8	5.8	1.2	
INFORMAL SECTOR											
Employers	5.8	3.3	3.1	36.1	8.4	31.4	1.9	6.1	3.8	0.1	
Self-employed											
Registered	4.2	2.9	2.9	8.3	48.2	22.8	0.7	4.5	5.1	0.5	
non-registered	1.8	2.5	4.2	3.4	2.8	73.8	1.0	5.4	4.2	1.0	
Formal employee	0.8	23.5	5.9	4.0	1.9	16.5	28.6	14.4	4.0	0.5	
Informal employee	0.7	5.3	16.7	2.2	1.5	19.2	3.4	42.0	7.2	1.9	
Family worker	0.6	1.3	6.0	1.4	1.5	16.4	0.6	8.7	62.6	0.9	
DOMESTIC SERVICE											
	0.5	2.7	5.3	0.4	2.0	14.7	0.6	9.5	2.8	61.4	
Total	1.7	15.7	9.2	4.1	3.7	38.6	2.4	11.1	11.0	2.5	

7. The Profile of Formal Sector Workers Moving to the Informal Sector

In this section, we examine the profiles of those initially in FWR jobs that transition to employment in the informal sector. The purpose is to evaluate whether the composition of this group is compatible with the view of informality as an exclusionary state or reflects voluntary choices driven by the perceived attractiveness it holds for those individuals. Specifically, we will discuss the results of different multinomial logistic models that estimate the influence of different variables on the probabilities of transitioning from the formal to the informal sector –and to specific groups of informal sector jobs.

The set of x_i independent variables corresponds to personal and job characteristics of FWR in the initial period. Given the information available in all surveys,⁵ we chose variables whose influences on the probability of transiting to informality would be indicative of the drivers of the movements. We consider that a positive (or at least neutral) impact of the initial real wage, schooling, tenure and age would suggest a predominance of voluntary transitions. This would indicate that FWRs transitioning to the informal sector have larger (or similar) resources and experience than those remaining as FWRs. Well-remunerated salaried workers are more likely to become entrepreneurs with employees, probably because it is easier for them to gather the start-up capital. So, the likelihood of transitioning into this category is positively related to the individual's accumulated labor market experience and education level (Slonimczyk, 2022). As heads of household are usually more “conservative” regarding changing jobs than other households' members, a positive effect could be associated with involuntariness. The same driver is associated with a positive effect of underemployment, as those in such a situation would be more urged to get another job –even in the informal sector– than those fully employed. Those FWRs declaring that are searching for a job are, in principle, looking for another (better) similar type of job and a transition of these individuals to informality is possibly more associated with a non-desired change.

We have also included the size of the establishment as another independent variable; those working in larger firms, as opposed to those

⁵ One of the variables (tenure) could not be considered for Mexico, and search for another job for Brazil and Peru.

in smaller ones, would possess higher skills and be better equipped to pursue their own business. Therefore, a positive effect of that variable would be suggesting the presence of voluntary movements. Nonetheless, one could argue that small units would provide wage earners with a more adequate environment for gaining the necessary experience to establish their own, typically small, business. Strictly, the size of the establishment was only taken into account for private workers, and a specific category of public sector workers was singled out. The interpretation of its coefficient's sign is less straightforward. A positive impact might imply involuntary transitions, as working in the public sector typically does not offer the kind of experience required for a private activity venture. Gender and the industrial sector were included as control variables.

As mentioned, the first model estimates the effect of each variable on the probability that a person initially in a FWR occupation transitions to any type of informal sector job. This case contemplates only two results: remaining as FWR or moving from this type of job to a job in the informal sector. Table 5 reports the average marginal effect on the overall sample of each variable.

Virtually all the variables are statistically significant and indicate that the probability of transitioning to informality decreases with the educational level, tenure, the size of the private establishment, and income. This probability is also lower for those employed in the public sector. In terms of industry, the probability of transitioning to informality tends to be lower for individuals who come from manufacturing when compared to those from other sectors. However, in Peru, the coefficient is only significant for those who previously worked in Construction. In fact, in the other three countries, the marginal effect of this activity on the probability of transitioning to informality is higher than that of the other sectors.

Table 5: Logistic bivariate model of transitions from the formal to the informal sector. Average marginal effects

	ARGENTINA	BRAZIL	MEXICO	PERU
Household member				
Spouse	0.0124**	-0.0131***	-0.00329	0.0684***
Other	0.0124**	-0.0230***	-0.00334	-0.00625
Women	-0.0198***	-0.0196***	-0.0290***	-0.0316**
Age	0.000983	-0.00136**	-0.00496***	-0.00480*
Square age	-7.45e-06	5.06e-06	5.70e-05***	6.20e-05**
Education:intermediate	-0.0119***	-0.0315***	-0.0160***	-0.0434***
Underemployed	0.00318	0.0177***	0.00998*	0.0170
Tenure				
Between 1 and 5 years	-0.0344***	-0.0170***		-0.0605***
More than 5 years	-0.0533***	-0.0375***		-0.114***
Sector and firm size				
Private, between 11 and 50 occup	-0.113***	-0.0850***	-0.137***	-0.150***
Private, more 50 occup.	-0.142***	-0.117***	-0.193***	-0.224***
Public sector	-0.168***	-0.144***	-0.220***	-0.238***
Branch				
Building	0.0626***	0.104***	0.158***	0.0821***
Commerce	0.0345***	0.0284***	0.0212***	-0.00523
Restaurants and hotels	0.0144	0.0249***	0.0143***	0.0235
Transpor and comm.	-0.0119**	0.0242***	0.0231***	0.0179
Finance, public adm. and education	-0.00248	0.0108**	0.0232***	-0.0125
Others	0.0121**	0.0256***	0.0449***	0.0120
Search other job	0.000817		0.0222***	
Real monthly earnings	-3.87e-06***	-6.85e-08***	-1.04e-06***	-1.98e-05**
Observations	53,077	181,961	201,887	7,397

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

Base categories: Household members: head; Tenure: less one year; Sector and firm size: private less 10 occupied; Branch: manufacturing;

These findings imply that the implicit profiles of those moving from formal to informal jobs align more closely with the exclusionary view as, in comparison to those individuals who remain in formal sector jobs, those transitioning to informal sector positions have a larger proportion of persons with lower levels of education, engage in lower-paying jobs, with shorter tenure, and work in smaller establishments. Less clear are the implications of the effect of sex, as the chances to leave a FWR position and transiting to informality are lower for women. The larger probability that younger individuals make this transition might reflect the higher difficulties they face in finding a stable formal job but also their search for accumulating experience in different types of activities.

To obtain evidence of heterogeneities within the informal sector, it is worthwhile to assess the extent of variations in the profiles of individuals transitioning from a formal position to various types of informal sector occupations. As indicated earlier, it is often stated that some wage earners who have accumulated some experience, as well as resources, may be attracted to setting up their own businesses. However, the greater consensus seems to be that movements to informal wage positions would be scarcely voluntary. Therefore, Table 6 includes the values of the marginal effects of the same independent variables used in the first model just discussed, on the probabilities of transitioning from a FWR job to each of the three types of informal sector occupations identified above; as in the first model, the base result is remaining as FWR.

Only tenure and size of the firm generally have the same -negative- effect on the chances of moving to any of the three destinations that appeared in the previous model. Similarly, in almost all countries, women are less likely than men to transition to INW and IWNR, but gender does not affect movements to an IWR position. It is also shown that age affects positively going to an INW job but negatively to the other two destinations. The signs of the effects of the other variables differ among countries. Education negatively affects movements to informal salaried positions in all cases but has different impacts among countries on the probability of transitioning to the other two types of informal occupations. Specifically, its impact is negative on the probability of moving to any of the three destinations in Brazil, as well as transitioning to an INW position in Peru or to an IAR position in Mexico. The coefficients are not significant in the other cases. Being underemployed raises the chances of moving to INW positions relative to remaining as FWR but does not affect the probability of other transitions. Finally,

earnings in the initial (FWR) position affect negatively passages to IWNR jobs but do not affect those made to INW occupations.

These findings show that the profiles of those individuals who move from FWR to IWNR positions generally maintain the features commented on when considering the results of the first model that contemplate transitions to any informal sector occupation. This first result supports the view, with a large consensus in the literature, that no registered wage-earning jobs are scarcely a desired destination.

The exclusionary hypothesis also appears to prevail for the transitions to INW in Brazil, however, in the other three countries, the composition of the flows from formal jobs to these non-wage occupations does not offer a clear view of the possible drivers of the movements. Education and earnings have no impact, which would be consistent with the voluntary perspective that associates those movements with the desire to set up an independent business. The positive coefficient for age is also associated with this view. However, other results of the model would be more related to the exclusionary hypothesis as the negative impact of tenure and size of establishment would suggest a larger proportion (in comparison to those staying in formality) of workers with low experience in the composition of those transitioning to INW jobs.

These somewhat ambiguous findings may suggest that the aggregate of independent positions of the informal sector constitutes a set with some degree of heterogeneity in terms of the drivers to informality.

To examine the eventual presence of this heterogeneity, we analyze the profiles of those transitioning from formality to groups of INW jobs that, a priori and at least on average, might have different motivations in carrying out the transition. Resorting to the available information in the employed surveys, we differentiated between independent workers who hire employees (the so-called “employers”) and those who do not hire employees (“self-employed”). This distinction can contribute to our objective, as it appears that FWR who decide to transition to an independent position attracted by its advantages may be more inclined towards establishing small businesses with some degree of organizational complexity. What is even more significant is that a situation of exclusion is unlikely to be compatible with hiring workers.

Therefore, we estimate a multinomial logistic model of the effects of the same independent variables employed in the two previous models, on the probability of moving from a FWR job to two types of independent occupations: as an employer or as a self-employed worker; the base category is, as before, that of remaining as FWR (Table 7). The findings

support to some extent the idea of heterogeneity since those moving to positions as self-employed workers tend to have lower incomes than those remaining as FWR while those becoming employers have similar earnings (the probabilities of transiting decrease with income in the first case, while they do not vary in the second). Furthermore, those who become self-employed in Brazil and Peru have less education than those who transition to employer positions. Tenure is shorter for those transitioning to self-employment than for those moving to an employer position as implied by the negative sign of the coefficients for the first transition and the non-significant of those corresponding to the other.

Recognizing that the aggregate of all self-employed in the informal sector might still encompass some degree of heterogeneity, we proceed to estimate another model that contemplates transitions from FWR positions to three possible groups of independent informal jobs: that of employers, registered self-employed, and non-registered self-employed. As indicated above, there is no information on this “legal” dimension in the Argentine survey, while in the cases of Brazil and Peru, this variable is available only for some of the years included in our panel.⁶ Therefore, the multinomial logistic model considering the three destinations was estimated using panels for the years 2015-2019 in the case of Brazil, for the years 2012-2019 for Perú, and for the whole period under analysis for Mexico. Again, remaining as FWR was the base result.

Heterogeneity becomes more evident within the self-employment, as shown in Table 8. In Brazil and Mexico, education and income have a negative impact on the probability of moving to non-registered self-employment but none, or positive, for transiting to the other two independent occupations of the informal sector. Also supporting the exclusionary view for the case of non-registered self-employed is the larger (in absolute terms) negative coefficients of tenure and size of establishment for the transition to those occupations. The results are less clear for Peru, as the coefficient for income is not significant for any destination, but differences in the proportion of those moving towards each of the two groups of self-employed workers appear in terms of education and tenure.

⁶ To identify registration, in the case of Brazil we considered those informal self-employed registered in the Cadastro Nacional da Pessoas Juridicas (National Register of Juridical Persons); this data began to be collected from 2016 onward. In Mexico, the question asking whether the self-employed “is registered in some taxpayer scheme of the Tax Administration Service” was employed, while in Peru, those self-employed workers are registered as juridical persons or at the tax administration.

8. Moving to the Informal Sector and Changes in Earnings

In this section, we analyze changes in incomes associated with transitions from formal sector jobs to informal sector jobs, compared to income changes for individuals who continue to work as formal employees in the formal sector.

As indicated in the methodological section, we use regression models of the variation in income of those moving to different types of jobs in the informal sector, controlling for several variables related to the individual's characteristics and her initial job situation, as shown in [2]. We estimate three models which differ according to the "j" destination considered; the k variables of X are the same in all cases, and also the same contemplated in all the logit / multi logit models discussed in the previous section (including initial earnings).

The first model considers the same three informal sector destinations of the multinomial logistic model shown in Table 6. The values of the coefficient of interest, μ_j –which reflects the effect that moving to informality has on relative earnings changes– are shown in Table 9.⁷

Table 9. Relative earnings changes by transitions selected, by country

	ARG	BRAZIL	MEX	PERU
FWR-INW	-0.519***	-0.215***	-0.193***	-0.517***
FWR-IWR	-0.0673***	-0.0702***	-0.060***	-0.239***
FWR-IWNR	-0.464***	-0.386***	-0.260***	-0.254***

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

All coefficients are significant and negative, indicating that transiting to any of the three informal sector types of jobs implies a reduction in incomes relative to remaining as a formal employee in the formal sector. The transition to formal employees' positions in the informal sector shows the lowest relative losses in all countries (although

⁷ The complete set of coefficients of for this and the other models examined in this section are available from the authors upon request.

Perú shows similar relative losses for transitions to formal and informal employees). The largest relative losses are associated with movements to informal wage jobs (as in Brazil and Mexico) or to non-wage jobs (as in Argentina and Perú).

As mentioned in the previous section, we also explore INW heterogeneity by differentiating between those FWRs who become employers and those who become self-employed workers.

Table 10. Relative earnings changes by transitions selected, by country

	ARG	BRAZ	MEX	PERU
FWR -INW employers	-0.032	0.308***	0.132***	0.262*
FWR -INW self-employed	-0.578***	-0.257***	-0.263***	-0.632***

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

The coefficients of this model displayed in Table 10 show that the effects on earnings change of moving from formality also differ according to the type of informal non-wage job of destination and support the existence of heterogeneity between employers and self-employed workers as previously considered from the analysis of the compositions of the worker flows. While for every country, individuals who transition to employers' positions show strong and significant relative gains in relative income (or no difference in the Argentinean case), those who transition to self-employed jobs experience relative losses in income. In the Mexican case, the loss is similar to that observed in Table 9 for transitions to IWNR positions, while in the Argentinean and Peruvian cases, the sanction for self-employed workers is much higher.

When disaggregating self-employed workers, Table 11 shows that the penalties in terms of income variation, relative to those workers remaining as FWR, are largest for those moving to unregistered self-employed occupations while gains are largest for those who move to an employer position. Registered self-employed positions remain in the middle, showing losses in Mexico and Peru, and small gains in Brazil. However, even in Brazil, the hierarchy remains, as while those moving to register self-employed jobs improve their earnings compared to those who stay as FWR, they do so to a lesser extent than those becoming employers in the informal sector.

Table 11. Relative earnings changes by transitions selected, by country

	BRAZ*	MEX	PERÚ*
FWR -INW employers	0.245***	0.132***	0.223
FWR -INW Registered self-employed	0.0628**	-0.077***	-0.327***
FWR -INW Unregistered self-employed	-0.374***	-0.320***	-0.705***

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

In summary, the evidence analyzed in this section supports the exclusionary view of the informal sector as a non-desirable destination. But it also indicates the presence of heterogeneities within the non-waged segment, finding positive outcomes for a small group of individuals who exit the formal sector to become employers and, also in one case, for registered self-employed.

9. Conclusions

A substantial body of literature has emerged concerning the factors driving to informality in Latin America. Initially, the prevailing view regarded informality as a response to insufficient job creation, a view that was subsequently challenged by another perspective which emphasized the attractiveness it holds for many workers. Empirical contributions to the discussion employ diverse approaches and types of evidence.

This paper adds to the analysis by examining labor market transitions using data from household surveys of four countries. Specifically, we investigate the composition, characterized by a range of relevant variables, of the flows of workers transitioning from the formal to the informal sector. Additionally, we explore the impact of these transitions on earnings. In both cases, the variables are evaluated in comparison to those who remain in the formal sector.

When considering movements from the formal sector to informal wage-earner jobs within the informal sector, our findings tend to align with the exclusionary view. On the one hand, the profiles of those moving from formality to informality suggest a lower level of experience and resources compared to those who remain in the formal sector.

Furthermore, their incomes experience relative declines. However, the situation becomes less clear when analyzing transitions to independent occupations in general. Even though they are associated with relative income reductions, the profile of those making these transitions does not strongly support either of the two contrasting views.

Nevertheless, when we distinguish between types of non-wage informal sector jobs, the results align more with the view of a heterogeneous informal sector, which has gained traction in the discussion on the drivers of informality. We first disaggregated these occupations between self-employed workers and employers. The composition of those transitioning from the formal sector to the former group is more consistent with the exclusionary perspective, whereas those transitioning to the latter type of jobs tend to have profiles similar to those remaining in the formal sector, congruent with the voluntary view. Earnings behaviour further supports the heterogeneity, as those becoming self-employed workers experience relative income losses, while those transitioning to an employer position generally see an increase in relative incomes compared to those remaining in the formal sector.

Such results are strengthened when self-employed workers are further separated into those who register their activity and the rest. The composition of those initially formal workers moving to the former type of jobs tends to be similar to the composition of those transitioning to an employer occupation. However, the profiles of those moving to non-registered self-employed jobs are more clearly associated with the idea of non-voluntary movements as they include a larger proportion of persons with less education, who initially worked in jobs of lower remuneration, short tenure and establishment of smaller size. Even if the earnings of both types of self-employed workers fall in relative terms compared to those staying in the formal sector, the reduction is smaller for individuals in registered positions, and even gains were estimated in one country for the case of those moving to these occupations.

It is worth emphasizing that the more favourable occupations, such as employers and registered self-employed jobs, represent a small proportion of all informal jobs. Furthermore, they are also a relatively small share of the destinations for individuals transitioning from formal jobs in the formal sector to occupations within the informal sector. Additionally, it is important to note that these more favourable positions are highly unstable, which implies that the sustainability of the observed results for this type of transition over time is unlikely.

10. References

Beccaria, L. & Groisman, F. (2015). "Informalidad y segmentación del mercado laboral: el caso de la Argentina". *Revista de la CEPAL*, Nro. 117, 127-143

Beccaria, L.; Filipetto, S. & Mura, N. (2021). "Revisitando un viejo tema: informalidad y ciclo económico". *Revista de Economía Política de Buenos Aires*, Nro. 22, 9-45.

Beccaria, L.; Filipetto, S. & Mura, N. (2022). "Heterogeneidad en el sector informal y transiciones entre estados. Un análisis de largo plazo para el mercado laboral argentino". *Desarrollo y Sociedad*, Nro. 92, 195-235.

Bosch, M. & Maloney, W. F. (2010) "Comparative analysis of labor market dynamics using Markov processes: An application to informality", in *Labour Economics*, 17(4), 621-631.

Calderón-Madrid, A. (2000). "Job Stability and labor mobility in urban Mexico. A study based on duration models and transition analysis". Working Paper R-419. Inter-American Development Bank Research Network.

Cazes, S. & S. Verick (2013). *The Labour Markets of Emerging Economies, Has Growth Translated into More and Better Jobs?* New York: Palgrave Macmillan - ILO.

Cea, S., & M. I. Contreras (2008). *Transiciones laborales: evidencia para datos de panel*. Tesis de grado, Santiago, Universidad de Chile.

Contreras, D. & R. Gillmore (2015) "Self-employment and queues for wage work. Evidence for Chile" *Journal of International Development*. 29 (4),473-499.

Delaporte, I., & W. Pena (2023). *The Dynamics of Labour Market Polarization in Chile: An Analysis of the Link Between Technical Change and Informality*. Available at SSRN 4223191.

De Soto, H. (2000). *The mystery of capital. Why capitalism triumphs in the west and fails everywhere else*. New York: Basic Books.

Duryea, S., G. Marquez, C. Pages, S. Scarpetta & C. Reinhart (2006). "For better or for worse? Job and earnings mobility in nine middle- and low-income countries". In Collins, S. & C. L. Graham (Eds.). Brookings trade forum 2006. *Global labor markets*. Washington: The Brookings Institution.

Duval-Hernandez, R. (2022). "Informal work in urban Mexico". In Fields, G., T. Gindling, K. Sen, M. Danquah and S. Schotte (eds.) *The Job* Oxford: Oxford University Press.

Duval-Hernandez, R. (2020). "By Choice or By Force? Uncovering the Nature of Informal Employment in Urban Mexico". WIDER Working Paper No. 2020/151. Helsinki: UNU-WIDER.

Engbom, N., G. Gonzaga, C. Moser & R. Olivieri (2022). "Earnings inequality and dynamics in the presence of informality: The case of Brazil". *Quantitative Economics*, 13 (4), 1405-1446.

Fields, G. S. (1990). "Labour Market Modelling and the Urban Informal Sector: Theory and Evidence," in Turnham, D.; B. Salomé and A. Schwarz (eds.) *The Informal Sector Revisited*. Paris: OECD Development Centre

Fields, G. S. (2005). "A Guide to Multisector Labour Market models", Social Protection Discussion Paper Series, Nro. 0505.

Fields, G. S. (2011). "Informality': It's Time to Stop Being Alice-in-Wonderland-ish" WIEGO Research paper.

Fields, G. S. (2019). "Self-employment and poverty in developing countries". IZA World of labor, revised version.

Gally, R. & D. Kucera (2003). "Labor Standards and Informal Employment in Latin America", *World Development* 32(5), 809-828.

Gomes, D., F. Iachan & C. Santos (2020). "Labor earnings dynamics in a developing economy with a large informal sector". *Journal of Economic Dynamics & Control*, (113)

Guerguil, M. (1988) "Some thoughts on the definition of the informal sector" in *CEPAL Review* No. 35, 57-65

Günther, I. & A. Launov (2012). "Informal employment in developing countries". *Journal of Development Economics*, 97(1), 88-98.

Harris, J. & M. Todaro (1970). "Migration, unemployment and development: a two-sector analysis". *American Economic Review*, 60 (1), 126-142

Hart, K. (1973). "Informal Income Opportunities and Urban Employment in Ghana", *Journal of Modern African Studies*, 11 (1), 61-89.

Kucera, D. & Roncolato, L. (2008), "Informal employment: Two contested policy issues." *International Labour Review*, 147 (4), 321-348

ILO (1993). Fifteenth international conference of labour statisticians. Geneva. Available at:
https://www.ilo.org/public/libdoc/ilo/GB/255/GB.255_4_6_engl.pdf

ILO (2003). Report of the Conference. Seventeenth International Conference of Labour Statisticians, Geneva. Available at:
<https://www.ilo.org/public/english/standards/reim/gb/docs/gb289/pdf/icls-17.pdf>

Jütting, J., C. Morrison, J. Dayton-Johnson, & D. Drechsler (2008). Measuring gender (In)Equality: The OECD gender, institutions and development data base, *Journal of Human Development* 9(1), 65–86.

Lewis, W.A. (1954). "Economic Development with Unlimited Supplies of Labor." *Manchester School of Economic Studies*, 22, 139-191.

Mandelman, F., & Montes-Rojas, G. (2009). Is self-employment and micro-entrepreneurship a desired outcome? *World Development*, 37(12), 1914-1925.

Perry, G., Maloney, W., Arias, O., Fajnzylber, P., Mason, A & Saavedra-Chanduvi, J (2007). *Informality: exit and exclusion*, Washington: The World Bank.

Pratap, S. & Quintin, E. (2002). "Are Labor Markets Segmented in Argentina? A Semiparametric Approach". Centro de Investigacion Economica, ITAM, Working Papers.

PREALC (1978). Sector Informal. Funcionamiento y Políticas, Santiago de Chile: PREALC, OIT.

PREALC (1987). "El sector informal: quince años después" PREALC-OIT. Documentos de Trabajo.

Slonimczyk, F. (2022). "Informal employment in emerging and transition economies". IZA World of Labor.

Soares, V. (2004). "Do informal workers queue for formal jobs in Brazil?" IPEA, Series Texto para Discussão N° 102.

Sugiharti, L. & N. Aditina, & M.A. Esquivias (2022). "Worker Transition Across Formal and Informal Sectors: A Panel Data Analysis in Indonesia". *Asian Economic and Financial Review*. 12. 923–937.

Tokman, V. (1977). "Dinamica del mercado de trabajo urbano: el sector informal urbano en America Latina," ILO Working Papers

Tokman, V. (1987). El sector informal: quince años después. *El Trimestre Económico*, Nro. 215, 513-536.

Ulysses, G (2018), "Firms, informality, and development: Theory and evidence from Brazil", *American Economic Review*, 108 (8), 2015–47

Vergara, A. N., Durán, L., & Trivelli, P. (1990). "Urbanización y sector informal en América Latina", 1960-1980. PREALC, Programa Mundial de Empleo.