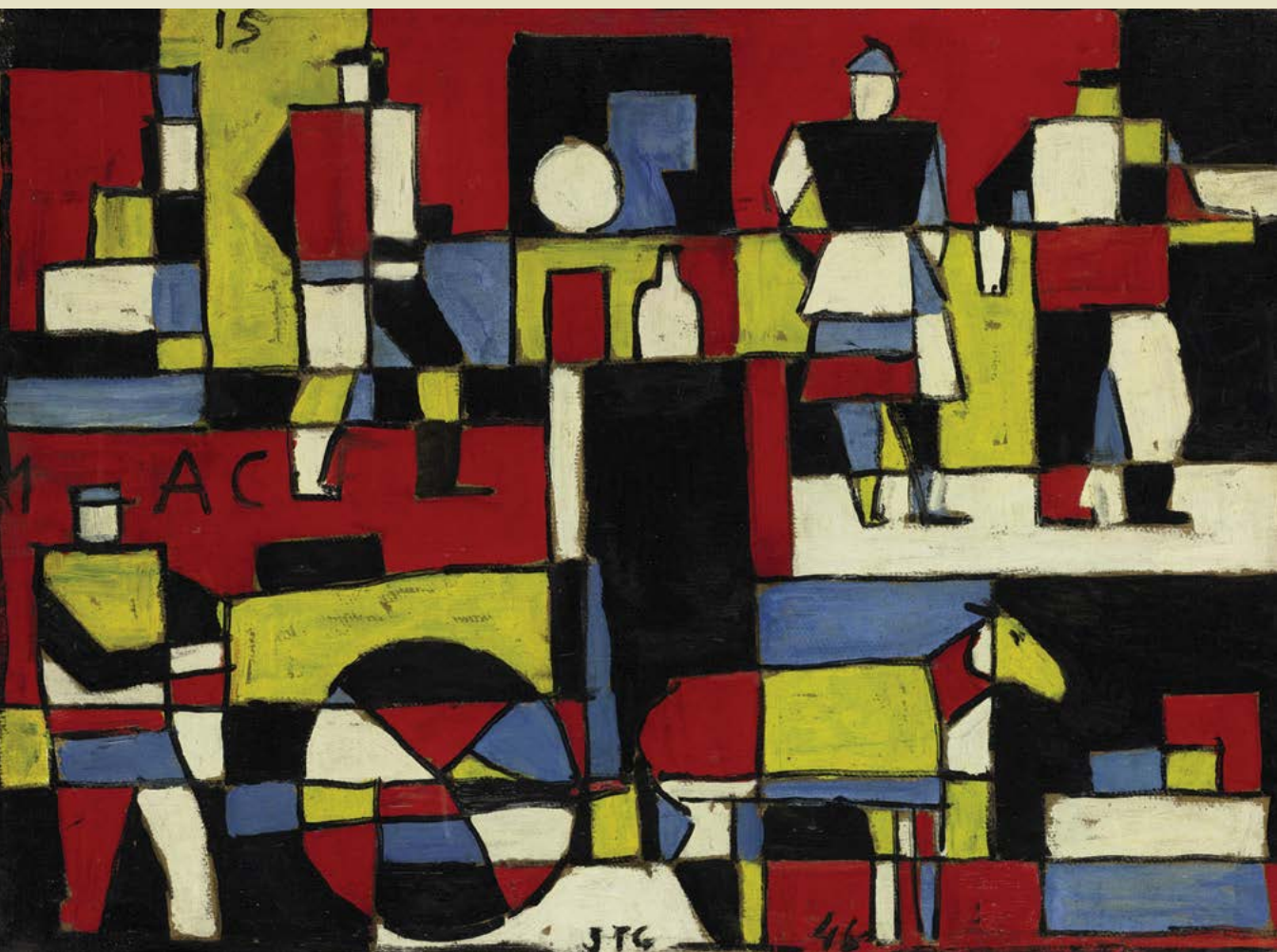




# Rationalizing Informality

Social Protection, Job Quality,  
and Growth

William F. Maloney, Guillermo Beylis, Nathalie Gonzalez-Prieto,  
and Andres Zambrano



# Rationalizing Informality

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WORLD BANK LATIN AMERICAN AND CARIBBEAN STUDIES

# Rationalizing Informality

## Social Protection, Job Quality, and Growth

**William F. Maloney, Guillermo Beylis, Nathalie Gonzalez-Prieto,  
and Andres Zambrano**



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**Errata**—On page 9, in the 4th paragraph, the last sentence has been revised to read “Forty-five percent of workers, accounting for 83 percent of informal workers, are found either running firms or working for firms with five or fewer employees total.”

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# Foreword

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Job creation is the defining challenge of our time. Over the next 10–15 years, 1.2 billion young people in developing countries will reach working age, yet only around 400 million jobs are expected to be created, leaving a gap of nearly 800 million. But this challenge transcends quantity: quality jobs—those that are safe, fair, and enable human potential—are critical to generating the income and productivity gains needed to transform economies along the development path.

Informality sits at the heart of the World Bank’s Jobs Agenda and it is frequently perceived as a defining measure of whether job creation is truly delivering on its promise of quality. In many developing countries, more than half of the workforce is found working without labor contracts and accompanying benefits, for the most part in unregistered microfirms. But are these jobs necessarily precarious and taken for subsistence purposes, or do they count as decent work? What drives this large and persistent phenomenon? What would it take to truly move these jobs up the quality and productivity ladder?

These questions remain the focus of a long-standing debate: Traditional views portray informality as a residual, lowproductivity sector akin to disguised unemployment. By contrast, the Latin America and the Caribbean (LAC) region’s 2007 flagship report *Informality: Exit and Exclusion* argued that although some workers are rationed out of good jobs, most workers—after weighing the costs and benefits in each sector—find informal self-employment preferable. The present volume shows that both views have

elements of truth, and that understanding workers' preferences is a valuable input in designing a policy mix that enables the creation of highly productive and desirable jobs.

This volume advances the debate in three ways. First, it collects and generates new and new types of data that allow for an in-depth look at developing countries' labor markets and the behavior of firms and their workers. It argues that the informal self-employed, in particular, make the same calculations as their advanced-country analogues, including the same comparison of earnings and amenities—such as flexibility and agency. More generally, it offers evidence that mainstream models of labor markets can be used to describe those of LAC. While many workers value these amenities highly, the book also highlights the importance of understanding why the region generates too few highly productive firms capable of expanding desirable formal employment at scale. Consistently, the book also establishes that informality declines continuously with development, and hence the underlying behavior of workers is unlikely to be so different between rich and poor countries.

Second, this volume generates the first comprehensive measures of how much workers value both the amenities offered by informality and the benefits offered by the formal sector. Strikingly, the advantages of the former are very large and, vitally, those of the latter are often quite low. This implicit tax on formality, partially associated with the characteristics of formal jobs available in the region, helps explain why firms may struggle to attract workers into formal salaried employment.

Third, this book develops a comprehensive model of developing-country labor markets that incorporates these elements, allowing for different perspectives on the role of informality. This study both provides a platform to compare competing perspectives and allows a means to simulate the impact of various policy levers, further strengthening the case for taking workers' perspectives and preferences in the policy mix design.

The message of the book is that piecemeal approaches that focus on formalizing jobs and firms will not be enough. A comprehensive framework based on simultaneously advancing the three pillars of job creation is needed for impact.

1. *Foundational building blocks such as education and skilling.* These are prerequisites for both workers and firms to thrive. Raising the skill levels

of the average worker through improved public education and additional private sector–relevant training programs is needed, as is raising the quality of transformational entrepreneurs through expanded tertiary and science, technology, engineering, and mathematics (STEM) education, and better managerial training. Such improvements would increase the size and productivity of transformational firms and therefore increase the demand for workers and wages.

2. *Policies and the regulatory environment.* Governments can create the conditions for firms to generate high-quality and desirable jobs. Although the reform debate is often framed as a fight over workers' rights versus firm cost reduction, the fact is that the present system serves neither firm nor workers well. There is ample middle ground where both can be made better off. Altering the cost-benefit calculations of workers by better aligning benefits with the preferences of workers both stimulates formal job creation and reduces the incentive to informality. At the same time, making it easier for productive firms to grow can help expand desirable formal employment.
3. *Private capital mobilization.* Supporting the entry of high-quality entrepreneurs and enabling the best firms to reach their full potential—dictated by their entrepreneurial skill level—contributes to creating formal jobs and reducing informal ones. Relaxing credit constraints for formal firms, for example, allows the most productive firms to expand by attracting workers with better wages, which in turn leads to a stronger selection on entrepreneurs (both formal and informal), leaving only the best firms, raising formal sector productivity, and improving the attractiveness of working there. These policy priorities that address persistent constraints to productive job creation in the region are fully consistent with the book's analysis of how workers and firms respond to the incentives embedded in formal and informal work arrangements.

The conversation about informality has been going on for a long time. This study, we believe, advances it meaningfully—and points toward a more productive set of policy questions for the years ahead.

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# Overview

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From a distance, developing-country labor markets appear unordered, even chaotic. A minority of workers, recognizable to advanced-country observers, work in large, modern firms with legal contracts. However, the vast majority are found in a state of informality, defined broadly as being uncovered by labor and social protections in their jobs, and are often found in unregistered, low-productivity, improvisational microfirms. The dominance of the sector makes understanding its rationale—its reason for being and dynamics—critical to making policy around three fundamental social goals: ensuring social protection coverage to all citizens, creating high-quality jobs, and achieving dynamic growth.

In the literature, the consensus around this rationale remains elusive. A traditional view that has recently enjoyed a resurgence sees the informal sector as working in inferior or subsistence jobs and firms (Donovan et al. 2023; Fields 2019; Fields et al. 2023; Harris and Todaro 1970; Herreño and Ocampo 2023; Jaar 2024) and, in the extreme, effectively disguised unemployment. By contrast, the 2007 World Bank report *Informality: Exit and Exclusion* (Perry et al. 2007), and supporting published work,<sup>1</sup> has argued that, while some fraction of workers are excluded from formal employment, many enter informality voluntarily. In fact, both camps acknowledge that workers are informal for both “opportunity” and “necessity” reasons—the argument is really over the share of each.

This book contributes to the ongoing debate in three ways.

First, new and new types of data from Latin America and the Caribbean (LAC) and other regions are marshaled to argue that the difference between developing- and advanced-country labor markets is one of degree, not of kind. Properly disaggregated, the behavior of the various subsectors of informality is well described by mainstream economic models. Without question, there is a substantial segment rationed out of good jobs by distortions and education. However, the majority of informal workers and, in particular, the self-employed engage in the same welfare calculus as their advanced-country counterparts, comparing not only relative incomes and the value of the benefits in the formal sector but also the amenities (desirable characteristics) of being informal.

Second, it introduces state-of-the-art tools to quantify the elements of this calculus. “Willingness to Pay” exercises demonstrate that flexibility and being one’s own boss are valued very highly indeed, potentially up to multiples of current income, while formal benefits are often valued far less than their social cost.

Third, in the interest of moving toward consensus, these elements are incorporated into a unified framework of the labor market that integrates not only segmenting labor market regulations and other distortions that reduce incentives for large firms to create better jobs—pushing workers into informality—but also the broad and compelling range of factors that pull workers toward it (Beylis, Maloney, et al. 2026). In particular, it is the first to place worker preferences, for various types of job characteristics, at the center and to quantify their impacts on worker allocation. The model explains the decline of informality with development and shows how the size of the sector is determined by the relative productivity and amenity value of work in each sector and their interaction with labor market institutions. This broader perspective cautions against piecemeal programs such as those focusing on formalizing microfirms, but rather it urges a comprehensive, three-part agenda: raising skills across the human capital distribution, engaging in reforms to increase the dynamism of the formal sector, and reforming the design of social protection systems to reduce the implicit bias against work in the modern sector and to better serve workers.

Although the bulk of the evidence is drawn from LAC, evidence from other regions suggests that the analysis has more global reach.

## Who Are the Informal?

### The Size of the Informal Sector

The size of the informal share of the labor market ranges from 10 percent in Europe and Central Asia to 80 percent in South Asia and Sub-Saharan Africa. In LAC informality has stayed stubbornly high, around 55 percent of workers, for close to two decades, despite myriad reforms designed to facilitate registering microfirms, reduce the costs of hiring workers formally, and offer generous amnesty programs for previous labor violations.

The aggregate data from LAC highlight four distinct labor market sectors. As in the advanced countries, there is both a microfirm/own-account sector—what Lucas (1978) termed “Mom and Pop” firms—which is largely unregistered, and a “transformational” entrepreneurial sector that drives the dynamism in the economy. Then, there are two salaried sectors: a formal salaried sector where workers have formal labor contracts and an informal salaried sector where they do not.

These sectors differ fundamentally in education, age, job tenure, earnings, dynamics, and life-cycle patterns, thus suggesting that workers with distinct comparative advantages match with sectors with different characteristics. In particular, the informal self-employed are fundamentally different from the informal salaried; and the informal salaried are fundamentally different from the formal salaried.

**Informality as a phenomenon is intimately related to the low level of worker skills.** Informal workers have less education: Over half of the informal salaried and self-employed workers have only primary education, compared to a quarter of the formal salaried workers and entrepreneurs. The fact that 30 percent of firms in LAC say they cannot expand because of a lack of qualified labor suggests that severe skills mismatch in the economy is a first-order contributor to informality.

**Tenure (time in job) suggests that formal salaried and self-employment, both formal and informal, are destination sectors.** Both formal and informal self-employed have the longest tenures (eight years and six years, respectively), followed by formal salaried workers (five years). Self-employment is a source of long-term stable employment—emphatically not a substitute for unemployment, which has an average tenure of about three months.<sup>2</sup> By contrast, informal salaried work shows the shortest tenure (two years), suggesting low job attachment that results from few job-specific skills, or that the sector serves as a platform for search.

**Life-cycle patterns also suggest very different roles of informal subsectors.** The life-cycle patterns show that, on the one hand, the share of the workforce in informal salaried positions peaks among the youngest and then declines steadily with age. On the other hand, self-employment, both formal and informal, grows steadily across the life cycle, drawing from both informal and formal salaried workers. Entry for opportunity among the informal actually rises with age, more consistent with credit constraints delaying firm startup as is highlighted in the advanced-country literature.

**Earnings vary across sectors, but more within them.** Although, generally, formal jobs pay more on average, there is a large overlap in earnings across sectors. The informal self-employed, for instance, include some of the lowest earners—perhaps capturing the “subsistence” component of some own-account workers. But some of the best-paid workers in the labor market also work in the sector. Hence, even looking only at earnings, it is impossible to categorically affirm that one sector is better than another.

### **Self-Employment as the Epicenter of the Informal Sector**

Self-employment—both own-account workers and microentrepreneurs with five or fewer total workers—is the epicenter of informality, and understanding informality means understanding the phenomenon of microfirms and those who work for them. Of informal workers, 83 percent, including 67 percent of informal salaried workers, are found either running or working for firms with five or fewer employees in total.

Despite its centrality, self-employment may be the most misunderstood sector of the labor market. It is not disguised unemployment, nor is it likely to generate many Steve Jobs. The evidence from labor, enterprise, entrepreneurship, and own-generated surveys consistently show the same patterns found in the advanced countries: 60 to 70 percent enter for reasons of opportunity and, in particular, for higher incomes, flexibility, and the ability to be their own boss. The Global Entrepreneurship Monitor shows that much of LAC has rates of entry for opportunity reasons among microentrepreneurs with secondary education or less above 60 percent—with Colombia and Panama substantially above the Organisation for Economic Co-operation and Development (OECD) average.<sup>3</sup> It also shows that entry for necessity in LAC is similar to East Asia and the Middle East, and quite close to OECD and Southeast Asia. Strikingly, and consistent with more detailed recent work, Sub-Saharan Africa also reports a high degree of opportunity in motivations for entry.

Willingness to pay measures generated here show that the self-employed value the associated amenities at between 50 and 100 percent of earnings and that workers select into sectors aligned with their preferences. Across the region, the valuation of independence and flexibility among those who are in jobs they self-rate as very flexible and independent are willing to pay between 30 and 45 percent of their income for that flexibility and independence. Comparisons of adjusted earnings—relative earnings plus the value of all amenities and formal sector benefits minus taxes and contributions—show that workers, on average, value informal self-employment and formal salaried work equally.

The appreciation of self-employment amenities is globally shared. According to data from the International Social Survey Programme, among the advanced countries, roughly half of *salaried workers* say they would prefer to be self-employed. In the Dominican Republic, Mexico, and the Philippines, that number is 80 percent. The opportunity cost of being your own boss increases with productivity and, hence, earnings in the modern sector, and it is one plausible explanation for the steady decline of self-employment with gross domestic product (GDP) per capita, both across and within countries: The level of self-employment in LAC is broadly where Japan, the Republic of Korea, and Portugal were when they were at the region's level of development.

The continuous evolution of labor market structures across the development process, and the similarities in decision-making between LAC and advanced-country entrepreneurs, suggests again that these are related phenomena. Further, the fact that LAC is broadly on or slightly above trend indicates that LAC is not especially pathological in having a large self-employed sector.

Emphatically, this discussion does not imply that the self-employed are not poor—some may, in fact, be living at subsistence levels—or that they are happy. It means only that they would not necessarily be better off in the formal salaried jobs for which they are qualified. Being the boss of your own arepa stand may be preferred to a grinding routine of washing dishes as a salaried worker in a formal restaurant. Moreover, parents might prefer the flexibility offered by a business they own and run themselves to managing childcare amid the rigid schedule of salaried work—even if health services or pensions need to be pieced together, as is increasingly easy to do. Nor does it imply that the workers are fully informed or rational. It does imply that, from the worker point of view, jobs in both sectors are of equal (low) quality.

## The Paradox of Entry for Opportunity, but No Growth

The patterns of entry, exit, and growth are also similar to those of advanced-country mom-and-pop stores, except that there is more entry and less exit, thus leading to larger overall self-employed sectors. This is not a result of older workers being laid off and unable to find new jobs—in Brazil, Colombia, and Mexico the share of self-employed seeking other jobs declines steeply across age to 20 percent among late-prime-age workers. The seeming paradox, again, found in the United States, is that despite the high rates of entry for opportunity, there is little desire to grow or access credit. These mom-and-pop entrepreneurs, while they are as content as they would be in formal jobs forgone, are relatively low-ability entrepreneurs and do not contribute to the growth of the economy.

The low aspirations of these entrepreneurs also imply that remaining informal is less an issue of evasion and more a lack of any formalization imperative—household firms do not need credit markets, labor arbitration, dispute resolution, or other benefits of formality. The formality status of microfirms is to some extent secondary or incidental—the self-employed again undertake a cost-benefit analysis to decide which dimensions of the state to interact with. As they grow or, with time, become more confident in success, they may need state services more and formalize. But if the entrepreneur's ability and preferences dictate a very small size, there is likely to be little growth impact of formalizing such firms.

The findings also imply that the dynamism of the economy is likely to be driven by higher-ability transformational entrepreneurs who will invest, grow, and raise the overall productivity of the economy. Hence, even if informality is primarily a microfirm phenomenon, it is possible that policies toward the transformational entrepreneur sector may be far more important to reduce the size of the informal sector and increase worker welfare than those directly oriented toward formalizing the sector. For entrepreneurs, their skills and the enabling environment they work in determine how many jobs they will create as the firms grow and how much investment and innovation they will undertake. Hence, reducing informality may involve systemic reforms that, at first glance, appear to have no direct impact on the sector.

It is also the case that, at one level, the observed allocation of workers is broadly welfare maximizing—that is, workers are equating marginal utility across sectors—whereas the high value put on amenities drives a wedge

between marginal productivity across sectors. That is, from a purely productivity point of view, it would be desirable to move the self-employed to formal firms.

### **The Rationale of the Informal Salaried Sector**

Salaried workers without labor contracts constitute 22 percent of the workforce and 40 percent of the informal sector; two-thirds of the informal salaried workers are found in microfirms. Of the remaining one-third (13.2 percent of the informal sector), the share of informal salaried workers found in firms of more than 50 workers is 8.4 percent. The decisions of these firms on whether to formalize have been modeled in several excellent studies over the past decades,<sup>4</sup> and this book explores another margin along which large firms evade full compliance—payments to workers not reported to authorities (dubbed “payments under the table” by Feinmann et al. forthcoming). However, given the overall low contribution to the informality phenomenon, the focus here is primarily on the nexus of informal salaried workers and microfirms.

Informal salaried workers can be further disaggregated into younger workers, who appear to be using it as a stepping stone to other sectors; low-skilled prime-age workers, who ping-pong frequently between formal and informal jobs; and unpaid workers. These “dependent” workers, by definition, have less agency—they are not their own bosses, and a larger fraction (50–70 percent) would prefer a formal salaried job. Clear evidence suggests that unlike the self-employed sector, labor legislation—and in particular minimum wages—may be rationing prime-age workers into the sector, thus raising the share of involuntary entrants. Amenity-adjusted earnings are roughly between 35 percent and 45 percent below formal salaried work, suggesting substantial segmentation.

That said, there is also a substantial share of workers voluntarily in the sector and, in fact, the formal/informal division has become very blurry. Informal salaried workers report receiving many benefits—minimum wages, 13th-month wage, paid leave, and so on—and expanding universal health and pension systems provide an alternative to formal contract benefits. In LAC, for example, 45 percent of informal workers report having health care. Further, sectoral decisions likely occur at the family level—unpaid workers are almost always “employed” by a family member in a microfirm and, hence, are sharing both the earnings and social protection strategy of the household; young informal salaried workers

who are just entering the market may be doing the same. And again, many workers, especially married women, report the need for flexibility and are willing to pay up to 25 percent of earnings to get it.

Most strikingly, the willingness to pay data suggest that most workers value formal sector benefits far below the cost of provision, creating a disincentive to job creation and an incentive to informality. Part of this is an information problem—workers of all types in Colombia systematically overestimate the cost of being formal. In part, this finding may reflect myopia—that is, insufficient appreciation of the need for a pension in the future. But part reflects benefits that workers do not value for a variety of reasons. Workers switching back-and-forth between the formal and informal sectors will never meet vesting period requirements to receive a pension, and hence those contributions are purely taxes. In cases in which governments have raided pension funds, either directly or through inflation, the expected returns to their contributions will be low. Further, where two workers in a family are formal, the contribution for health benefits of the second brings no additional benefits. Finally, contributions to finance workers' clubs or other benefits that are out of reach of poor workers yield no perceived benefit. For workers selecting sectors, these cost-benefit gaps are an incentive to informality. In larger formal firms, they are an incentive to partial compliance—such as partial wage payments under the table—to avoid payments to the state that yield no benefit to the worker.

### **Policy to Reach the Three Goals of Worker Protections, Quality Jobs, and Growth**

These results are integrated into a comprehensive labor market framework that incorporates both segmenting labor market regulations and other distortions that diminish incentives for large firms to generate high-quality jobs—thereby pushing workers into informality—and an array of factors attracting workers toward informal employment. The model shows that informality declines with economic development, and that the sector's size depends on job productivity, amenity value, and labor market institutions. Most important, it enables simulation of the effects and highlights the trade-offs of various widely discussed policies on achieving the three fundamental goals of extending social protection coverage, generating high-quality jobs, and sparking dynamic growth. In the process, it highlights often strong interactions between reforms.

This broader perspective cautions against piecemeal programs such as those focusing on formalizing microfirms; rather, it urges a comprehensive three-part agenda: raising skills across the human capital distribution, engaging in reforms to increase the dynamism of the formal sector, and reforming the design of social protection systems to reduce the implicit bias against work in the modern sector and to better serve workers.

**1. Expanding skills across the human capital spectrum has a large impact on productivity, while also reducing self-employment and informality.**

- *Raising the skills of the average worker* (improved public education, more private sector–relevant training programs, and expanded short-cycle programs) permits informal salaried and the self-employed to find better positions in the formal sector and would reduce the severe skills mismatch that prevents growth in formal firm employment.
- *Raising the quality of transformational entrepreneurs* (expanded tertiary and science, technology, engineering, and mathematics education and better managerial training and extension programs) increases the size of transformational firms, increasing the demand for workers and their wages (see Maloney, Cirera, et al. 2025). This dynamic largely explains the observed within- and cross-country correlation between GDP per capita and self-employment and makes this one of the most important policies for raising job quality, social protection coverage, and growth.

**2. Reforming the overall enabling (business) environment is critical to raising productivity and formal-job quality, drawing workers out of informality.**

- Supporting the entry of high-quality entrepreneurs and enabling the best firms to reach their full potential—dictated by their entrepreneurial skill level—contributes to creating formal jobs and reducing informal ones. The World Bank’s Business Ready (B-READY) indicators suggest substantial distortions and market failures, the remedying of which emerges at a similar level of priority to improving skills as a policy goal.
- *Reduce credit constraints.* In the model, for example, relaxing credit constraints for formal firms allows the most productive firms to expand, attracting workers with better wages, and generates a stronger selection for entrepreneurs (both formal and informal), leaving only the best firms and raising formal sector productivity and the attractiveness of working there. Critically, expanding credit access is an important complement to other labor market reforms: Firms may desire to expand hiring in response to reforms, but if credit is not available to do so, the impact is muted.

- *Reduce nonwage labor costs (payroll taxes and mandates).* Similarly, reducing high payroll taxes and mandatory contributions not valued by workers has a first-order effect on productivity and reallocation toward formal employment, especially in the presence of relatively high minimum wages. The wedge between benefit costs and worker valuation creates a sizeable implicit tax on employment (Levy 2008). The model suggests that reducing this implicit tax can positively affect the reallocation of workers toward more productive, formal jobs.
  - *Carefully design and implement labor market regulations such as minimum wages.* The documented segmentation, particularly among the prime-age informal salaried workers, reflects in part nominal rigidities that minimum-wage reforms often focus on. Recent evidence suggests that at moderate levels, increasing minimum wages can raise worker earnings without adverse employment consequences, but beyond a certain point, they deter formal job creation. Although the model suggests effects less important than either skills or the enabling environment, the impact is much stronger when the workforce has low education.
  - *Reform size-dependent policies.* As Eslava and Melendez (forthcoming) have documented for a set of LAC countries, there are still many size-dependent policies that interfere with the natural growth trajectories of productive firms. Eliminating kinks and large, discrete jumps in taxes, contributions, and mandates as firms expand would allow for a more efficient growth path for firms and would avoid having firms get stuck at a suboptimal, smaller level to avoid excessive costs.
  - *Target growth-oriented interventions to high-potential entrepreneurs.* Because most microfirms have low growth potential, productivity interventions should ideally focus on the smaller group of firms capable of expanding (refer to Goswami et al. 2019). In LAC, innovation funds, matching grants, and supplier-development programs that screen firms on the basis of performance, innovation capacity, or export readiness generate measurable improvements in productivity and employment (Arráiz 2013; Cirera and Malone 2017; Crespi et al. 2014; Crespi et al. 2020). These programs work when they identify firms with the capability and desire to expand. Although there is a case for such programs as antipoverty measures, they have less impact on jobs or productivity when extended to low-skilled entrepreneurs who are likely to remain small. Similarly, programs to facilitate the registration of informal microfirms have, overall, little effect given their generally low entrepreneurial quality.
3. **Revisit social protection systems to better align with what workers value.** Although the reform debate is often framed as a fight over workers' rights

versus firm cost reduction, the fact is that the present system serves neither firm nor workers well. There is ample middle ground where both could be made better off. Altering the cost-benefit calculations of workers by better aligning benefits with valuations of workers both stimulates formal job creation and reduces the incentive to informality (Levy 2008).

- *Treat social protection systems in a comprehensive way.* The expansion of universal health and other systems diminishes the importance of the formal/informal dichotomy, but it also shifts the cost-benefit calculus toward informality. The modeling does not suggest that employer-provided health care as an implicit tax on formality is a first-order source of lower growth, but it does increase informality and creates perverse incentives. Delinking health care provision from the labor contract and funding it through general revenues both reduces the “tax” on the formal sector and arguably would lead to a more integrated social protection system.
- *Ensure design that acknowledges workers’ true objectives and behavior patterns.* Create pension mechanisms appropriate to workers with low skills and with low attachment to formal sector jobs. Portable individual accounts with tight links between contribution and benefits, no minimum contribution, and perhaps 401(k)-type government matching would encourage savings and progressive interaction with financial markets over time. Allowing the flexibility for savings to be used for accumulating other types of wealth, such as housing or their microfirms (as do Singapore’s Central Provident Fund accounts), may make them more attractive, although they may weaken the pension provision per se. Linking them to other transfer programs would work to offset the effects of myopia and reduce information asymmetries. Similarly, recognizing that workers are embedded in families who optimize both income and social protection, governments could create carve-outs for second formal earners for benefits covering the entire family.
- *Relatedly, adapt labor market regulations to family needs and new modes of work.* Historically, across development, part of the increase in productivity has manifested itself in work arrangements that are seen as more conducive to balancing home and work responsibilities, the largest factor leading women into informality. More generally, rigid labor regulations (inflexible working hours, difficulty in hiring part-time or seasonal workers, high severance costs) often push firms and workers to choose informal arrangements that offer more flexibility. Further, as economies have moved more toward gig work and more people value flexibility, social protection systems should adapt and support that flexibility.

- *Bring benefits valuation more in line with perceived costs.* Improving the quality of services relative to what workers pay for them is clearly part of a larger program of increasing government efficacy. Further, progress can also be made on generating *confidence* that pension fund balances will be honored. Although private accounts are not inviolable, there is a greater sense of ownership and a tighter link from contributions to payouts. Allow greater modularity in benefits that workers pay for—some subsidized programs, such as access to housing subsidies or clubs, are not relevant to the poor and hence are not worth contributing to. In addition, avoiding discontinuities in taxation of benefits—caps on benefits despite continued payroll deductions, for example—would reduce incentives for firms to engage in payments under the table and other forms of subtle evasion. However, aligning benefits more tightly with the valuations of workers clearly implies reduced possibilities for social redistribution through programs tied to formal employment, thus creating a need for alternative mechanisms.

## Conclusions

In sum, reaching the three goals laid out in the introduction—expanding social protection coverage, creating high-quality jobs, and spurring dynamic growth—cannot be done in a piecemeal fashion. For instance, it cannot be done by focusing on formalizing the microfirms at the center of the discussion here. The microfirms’ informality and general lack of dynamism is a symptom of larger forces. Achieving these goals will require, instead, a comprehensive strategy focusing on longstanding and difficult reforms to the educational and training systems, improving the broader business climate, and then taking a fresh look at the often inappropriately designed and overlapping systems of social protection. The striking magnitude of the implicit tax on formality—the gap between contributions to these programs and how much they are valued—testifies to the onerous weight under which transformational job creators operate and the large disincentive to workers contemplating the formal sector. There is ample space for reforms where both workers and firms can be made better off.

The aspiration of this volume has been to lay out the rationale behind the various subsectors of informality and how these workers navigate the three elements. For the first time, this book offers a comprehensive framework of the developing-country labor market that can incorporate both the traditional view of its inferiority and one that emphasizes sectoral choice, putting, very importantly, worker preferences at the center. The intention is not to offer the last word but to offer a common framework within which

debates of the dynamics of the labor market and policy options can be discussed going forward. Although the evidence here is largely drawn from LAC, the findings that the underlying sectoral behavior is well described by mainstream analytics means that the model is able to describe how developing-country labor markets evolve across the development process, and more importantly, that the analysis here is salient for many other regions of the developing world.

## Notes

1. And background work: Arias and Khamis (2008); Bosch et al. (2007); Bosch and Maloney (2008); Cunningham and Maloney (2001); Fajnzylber et al. (2009); Fiess et al. (2010); Maloney (1999).
2. Unemployment has the shortest tenure, ranging from one to two months in Chile, Colombia, Costa Rica, Guatemala, Paraguay, and Uruguay to six to seven months in Brazil and Mexico.
3. Global Entrepreneurship Monitor (GEM) is an international survey-based research initiative that measures entrepreneurial activity across countries. See <https://www.gemconsortium.org/data>.
4. Dix-Carneiro et al. (2026); Imbert and Ulyssea (2026); Ulyssea (2018).

## References

- Arias, O., and M. Khamis. 2008. "Comparative Advantage, Segmentation and Informal Earnings: A Marginal Treatment Effects Approach." IZA Discussion Paper No. 3916, IZA–LISER Network, December. <https://www.iza.org/en/publications/dp/3916>.
- Arráiz, I., F. Henríquez, and R. Stucchi. 2013. "Supplier Development Programs and Firm Performance: Evidence from Chile." *Small Business Economics* 41 (1): 277–93.
- Azuara, O., R. Azuero, M. Bosch, and J. Torres. 2019. "Special Tax Regimes in Latin America and the Caribbean: Compliance, Social Protection, and Resource Misallocation." IDB Working Paper No. IDB-WP-970, Inter-American Development Bank.
- Beylis, G., S. Cerutti, and W. Maloney. Forthcoming. "Formality as an Input in Production: Micro-entrepreneurship and informality in Chile, Colombia, and Mexico." Background paper for this report. World Bank.
- Beylis, G., A. Garin, N. Gonzalez-Prieto, and D. Koustas. 2026. "Valuing Alternative Work Arrangements: Evidence from 7 Countries with High Rates of Informality." Policy Research Working Paper, World Bank.
- Beylis, G., W. Maloney, and A. Zambrano. 2026. "Self-Employment and Development: Job Amenities, (Mis)allocation, and Informality." World Bank.
- Bosch, M., E. Goni, and W. F. Maloney. 2007. "The Determinants of Rising Informality in Brazil: Evidence from Gross Worker Flows." Policy Research Working Paper 4375, World Bank.

- Bosch, M., and W. Maloney. 2008. "Cyclical Movements in Unemployment and Informality in Developing Countries." Policy Research Working Paper 4648, World Bank.
- Cirera, X., and W. F. Maloney. 2017. *The Innovation Paradox: Developing-Country Capabilities and the Unrealized Promise of Technological Catch-Up*. World Bank. <http://hdl.handle.net/10986/28341>.
- Crespi, G., E. Fernández-Arias, and E. Stein. 2014. "Rethinking Productive Development." In *Rethinking Productive Development: Sound Policies and Institutions for Economic Transformation*, 3–31. Palgrave Macmillan US.
- Crespi, G., L. F. Garone, A. Maffioli, and E. Stein. 2020. Public Support to R&D, Productivity, and Spillover Effects: Firm-Level Evidence from Chile. *World Development* 130: 104948. <https://doi.org/10.1016/j.worlddev.2020.104948>.
- Cunningham, W. V., and W. F. Maloney. 2001. "Heterogeneity Among Mexico's Microenterprises: An Application of Factor and Cluster Analysis." *Economic Development and Cultural Change* 50 (1): 131–56.
- Dix-Carneiro, R., P. K. Goldberg, C. Meghir, and G. Ulyssea. 2026. "Trade and Domestic Distortions: The Case of Informality." *Econometrica* 94: 573–618, supplement. <https://doi.org/10.3982/ECTA19378>.
- Donovan, K., W. J. Lu, and T. Schoellman. 2023. "Labor Market Dynamics and Development." *Quarterly Journal of Economics* 138 (4): 2287–325. <https://doi.org/10.1093/qje/qjad019>.
- Eslava, M. and M. Meléndez. Forthcoming. "Shaping the Playing Field for Economic Growth: Critical Regulatory Frameworks for Business in Latin America." World Bank.
- Fajnzylber, P., W. F. Maloney, and G. V. Montes-Rojas. 2009. "Releasing Constraints to Growth or Pushing on a String? Policies and Performance of Mexican Micro-Firms." *Journal of Development Studies* 45 (7): 1027–47.
- Feinmann, J., A. P. Franco, P. Garriga, N. Gonzalez-Prieto, R. Hsu Rocha, and M. Lauletta. Forthcoming. "Payments Under the Table in Latin America: Evidence from Argentina, Brazil, Colombia, Chile, Mexico, and Peru." Background paper for this report. World Bank.
- Fields, G. S. 2019. *Employment and Development: How Work Can Lead from and into Poverty*. Oxford University Press.
- Fields, G. S., T. H. Gindling, K. Sen, M. Danquah, and S. Schotte, eds. 2023. *The Job Ladder: Transforming Informal Work and Livelihoods in Developing Countries*. Oxford University Press.
- Fiess, N. M., M. Fugazza, and W. F. Maloney. 2010. "Informal Self-Employment and Macroeconomic Fluctuations." *Journal of Development Economics* 91 (2): 211–26.
- Goswami, A. G., D. Medvedev, and E. Olafsen. 2019. *High-Growth Firms: Facts, Fiction, and Policy Options for Emerging Economies*. World Bank.
- Harris, J. R., and M. P. Todaro. 1970. "Migration, Unemployment and Development: A Two-Sector Analysis." *American Economic Review* 60 (1): 126–42.
- Herreño, J., and S. Ocampo. 2023. "The Macroeconomic Consequences of Subsistence Self-Employment." *Journal of Monetary Economics* 136 (C): 91–106.
- Imbert, C., and G. Ulyssea. 2026. "Rural Migrants and Urban Informality: Evidence from Brazil." *Econometrica*, ahead of print, January 20.
- Jaar, D. 2024. "Self-Employment as Self-Insurance." University of Pennsylvania, November 6. <https://doi.org/10.2139/ssrn.5175208>.

- Levy, S. 2008. *Buenas intenciones, malos resultados: Política social, informalidad y crecimiento económico en México*. Océano.
- Lucas, R. E., Jr. 1978. "On the Size Distribution of Business Firms." *Bell Journal of Economics* 9 (2): 508–23.
- Maloney, W. F. 1999. "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico." *World Bank Economic Review* 13 (2): 275–302. <https://doi.org/10.1093/wber/13.2.275>.
- Maloney, W. F., X. Cirera, and M. M. Ferreyra. 2025. *Reclaiming the Lost Century of Growth: Building Learning Economies in Latin America and the Caribbean*. World Bank Latin American and Caribbean Studies. World Bank.
- Maloney, W. F., G. Vuletin, P. Garriga, and R. Morales. 2025. *Transformational Entrepreneurship for Jobs and Growth*. Latin America and the Caribbean Economic Review (October). World Bank. <http://hdl.handle.net/10986/43741>.
- Perry, G., W. F. Maloney, O. S. Arias, P. Fajnzylber, A. D. Mason, and J. Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. World Bank Latin American and Caribbean Studies. World Bank. <http://documents.worldbank.org/curated/en/326611468163756420>.
- Ulyssea, G. 2018. "Firms, Informality, and Development: Theory and Evidence from Brazil." *American Economic Review* 108 (8): 2015–47. <https://doi.org/10.1257/aer.20141745>.



# Abbreviations

|         |                                                        |
|---------|--------------------------------------------------------|
| CIT     | corporate income tax                                   |
| DCE     | discrete choice experiment                             |
| EME     | Encuesta de Microemprendimiento (Chile)                |
| EMICRON | National Microenterprise Survey (Colombia)             |
| ENAMIN  | National Survey of Micro-Enterprises (Mexico)          |
| ENOE    | National Survey of Occupation and Employment (Mexico)  |
| FS      | formal salaried                                        |
| FSE     | formal self-employed                                   |
| FTR     | formalization tax rate                                 |
| GDP     | gross domestic product                                 |
| GEIH    | Great Integrated Household Survey (Colombia)           |
| IMSS    | Mexican Social Security Institute                      |
| IS      | informal salaried                                      |
| ISE     | informal self-employed                                 |
| ISSP    | International Social Survey Programme                  |
| LAC     | Latin America and the Caribbean                        |
| OECD    | Organisation for Economic Co-operation and Development |
| PNAD    | National Household Sample Survey (Brazil)              |
| PPP     | purchasing power parity                                |

|        |                                                             |
|--------|-------------------------------------------------------------|
| PSED   | Panel Study of Entrepreneurial Dynamics                     |
| RER    | Special Income Tax Regime (Peru)                            |
| SEDLAC | Socio-Economic Database for Latin America and the Caribbean |
| SMEs   | small and medium enterprises                                |
| WTP    | willingness to pay                                          |

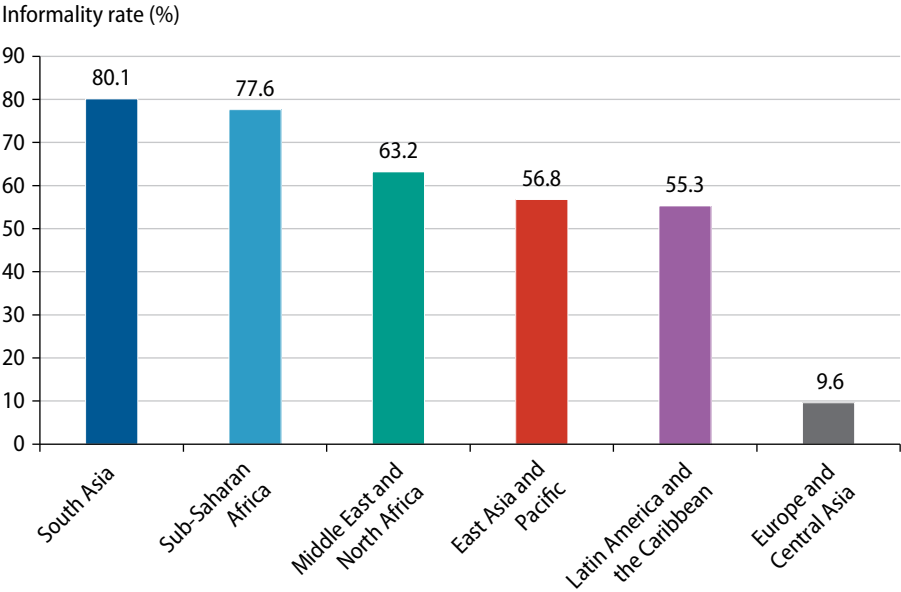
# Introduction

From a distance, developing-country labor markets appear unordered, even chaotic. Only a minority of workers, recognizable to advanced-country observers, work in large modern firms with legal contracts. The majority labor in a state of informality. They are not covered by labor or social protections, such as pensions and health insurance in their jobs, and often these jobs are found in low productivity, improvisational microfirms. The informal sector thus remains high on the region's policy agenda not only because of the sector's slow progress in ensuring citizens are covered by social protections, but also because of two additional fundamental goals—creating high-quality jobs and achieving dynamic growth.<sup>1</sup>

The size of the informal share of the labor market ranges from 10 percent in Europe and Central Asia to 80 percent in South Asia and Sub-Saharan Africa (figure I.1). In Latin America and the Caribbean (LAC), informality has stayed stubbornly high, about 55 percent of workers, for close to two decades, despite myriad reforms to facilitate registering microfirms, reduce the costs of hiring workers formally, and provide generous amnesty programs for previous labor violations (figure I.2).

This volume argues that despite the chaotic appearance, the difference between the developing-country and advanced-country labor markets is more one of degree than of kind, and that the informal sector, when disaggregated to the right level, shows very similar dynamics and logic.

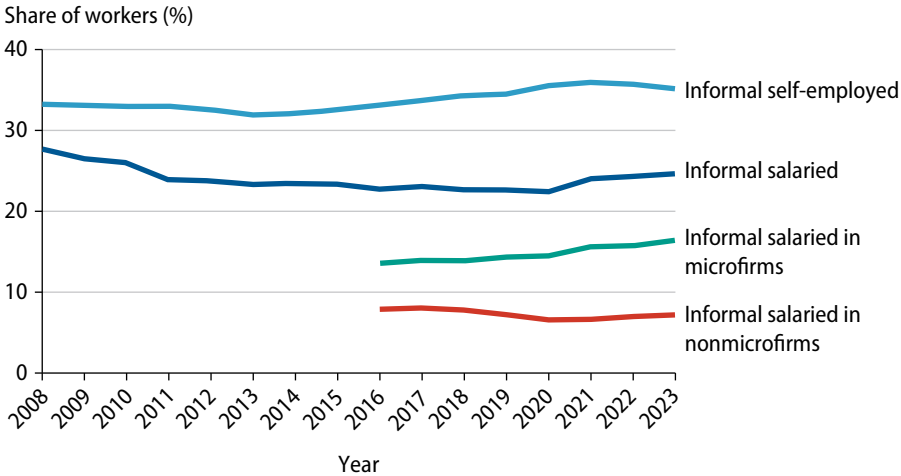
**FIGURE I.1 Informality Rate by Region**



Source: Original figure for this volume based on data from the International Labour Organization (ILO), available at <https://ilostat.ilo.org/data/snapshots/informal-employment-rate>, accessed 2026.

Note: Regions are defined according to the World Bank's public establishments.

**FIGURE I.2 Informality in LAC Has Stayed Stubbornly High**



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The figure shows the evolution of different types of informality in Latin America and the Caribbean over time. Each line represents the unweighted average across countries, including Bolivia, Ecuador, El Salvador, Panama, and Peru. Firms are classified as microfirms if they have five or fewer employees and as nonmicrofirms if they have six or more employees. SEDLAC = Socio-Economic Database for Latin America and the Caribbean.

Understanding the link between informality and job quality and social progress, the sector's persistence over time, and appropriate policy responses requires understanding the rationale of the sector: how workers and firms make decisions under constraints of limited skills, business climate, often poorly designed benefits systems and labor market regulation, and unevenly enforced tax and regulatory structures.

In the literature, the consensus on this rationale remains elusive. The traditional lens through which the sector has been viewed since Harris and Todaro (1970), and which has enjoyed a recent resurgence (Donovan et al. 2023; Fields 2019; Fields et al. 2023; Herreño and Ocampo 2023; Jaar 2024), stresses that most of the informal sector should be viewed as akin to unemployment—an inferior sector that workers are forced into by segmenting distortions or other barriers to accessing formal jobs.

By contrast, 20 years ago, the 2007 World Bank publication *Informality: Exit and Exclusion* (Perry et al. 2007) and supporting published work<sup>2</sup> argued that most workers choose to “exit” or never engage with formal institutions. While acknowledging that some fraction of this population is excluded from formal employment and is searching for formal jobs, the 2007 publication presented evidence from worker response data, sectoral transitions, and cyclical labor flows and earnings movements that suggested that most informal self-employed workers viewed their jobs as offering nonwage attributes, including flexibility and other amenities, that offset the benefits offered by formal employment.

In fact, both camps acknowledge that workers are informal for both “opportunity” and “necessity” reasons—the argument is really over the share of each. However, from a policy point of view, the distinction could not be more important for the attainment of the three fundamental goals of coverage, quality jobs, and growth. For example, if the vast majority of the informal sector is the result of segmented labor markets, informal jobs are without question inferior; however, programs of social transfers and benefits to those in the informal sector help offset their disadvantage and can be social welfare improving. And labor is misallocated from a productivity point of view. Policy would then need to focus on removing the rigidities, particularly in the labor market, that drive the segmentation. On the other hand, if most workers are entering informality for opportunity reasons, then workers have voted with their feet that job quality, as they define it, is equivalent across formal and informal sectors; universal social protections and transfers become a disincentive to register for formal protections, leading to labor misallocation and potentially depressing growth.

Hence, in the interest of advancing the dialogue, this volume first draws on an expanding set of new and revisited databases from LAC and other regions to develop a set of stylized facts about the nature and dynamics of the subsectors of informality. The evidence overwhelmingly points to roughly one-third of self-employed workers entering for necessity reasons and two-thirds entering for opportunity reasons, dictating the need for a unified framework of the labor market that incorporates not only segmenting labor market regulations and other distortions that reduce incentives for large firms to create more and better jobs—pushing workers into informality—but also the broad and compelling range of factors that pull workers toward it.

The general equilibrium model developed for this volume by Beylis et al. (2026) takes a comprehensive view of five groups of factors driving the allocation of workers across sectors: the distribution of skills, distortions in the labor markets, distortions in the overall business enabling environment (that is, credit constraints, business climate), the incentives embedded in the design of social protection systems, and the valuation of amenities. It explains the changing structure of the labor market across the development process and simulates the impacts of various policies, highlighting their interactions and making clear any trade-offs, such as those presented by the universal benefits coverage example discussed previously.

The hope is to help policy makers move beyond the short-term piecemeal approaches, especially the excessive focus on narrow formalization measures per se, and toward the comprehensive set of reforms that are needed to, yes, reduce informality but, more importantly and not the same, to progress on the three fundamental goals. Though the authors work primarily with data from the LAC region, evidence from other regions suggests that this framework is applicable globally.

## **Toward a Comprehensive Model of the Labor Market**

### **Sectoral Choice, Amenity Value, and Job Quality**

The framework seeks to quantify the relative contribution of push and pull factors, rather than equating informality to pathology from the start. To integrate both the necessity and opportunity perspectives in one framework, this volume develops a standard Lucas-style sectoral choice model (Lucas 1978) in which workers evaluate their options among different job types (worker or entrepreneur, formal or informal) given their abilities and then factors in the distortions that may impinge on those choices and affect the decisions of the transformational firms that create formal jobs.

In particular, the volume pushes beyond the criteria of wages and formal labor protections systems to identify what characteristics each sector may offer and how much these are valued—effectively reexamining what job quality is. In his canonical work, Rosen (1983) stressed that the labor market clears (reaches equilibrium), taking into account both earnings and the value of job amenities. The magnitude of the latter is not small and may drive very large wedges or compensating differentials between earnings a worker faces in different job types. Both characteristics determine job quality. As an example, the 2025 “American Job Quality Study” put forward five characteristics that define quality employment that include not only financial adequacy (earnings) and a sense of security and respect, but also the possibility for personal growth, flexibility, and agency (Jobs for the Future et al. 2025). The latter two characteristics emerge consistently among reasons that workers in the advanced countries report for entering self-employment.<sup>3</sup>

Chapters 1 and 3 explore worker decisions in the LAC region and provide evidence that developing-country workers also report valuing the distinct amenities of individual sectors—social protections in the formal sector, independence and agency in the informal sector—and consider these amenities in their sectoral choices. Then, for the first time, “willingness to pay” (WTP) data for workers in seven LAC countries are presented that allows for estimating the compensating differential represented by relative amenity value across sectors that will allow for calculating amenity-augmented “utility gaps” that are more informative than earnings comparisons. Chapter 2 shows that the patterns of entry into and exit from self-employment for developing-country workers, and their decision to seek growth (or not), are also very similar to those of their advanced-country counterparts.

To build upon the idea that workers select among sectors and firms choose their degree of formality does not in any way imply that the concerns about distortions in labor or product markets are not central to the discussion—all the World Bank Business Ready (B-READY) indicators confirm that they are. In particular, chapter 3 points to the importance of integrating labor market regulations, such as the minimum wage, in the discussion.

However, the evidence does suggest that tools from mainstream models are largely applicable to the developing-world labor markets and that researchers should not recur to ad hoc informal utility or production functions as they fit the data. Critically, this allows for a general equilibrium model to be built

that permits tracking the allocation of the workforce, productivity, and formality across the development process in a continuous way. This, in turn, allows researchers to quantify the impact of various different policy levers, as well as to study the trade-offs implicit in the policy space.

### **Four Elements of the Developing-Country Labor Market**

The data point to four distinct labor market sectors that are incorporated in the framework. As in the advanced countries, there is a microfirm/own-account sector—what Lucas (1978) termed “mom-and-pop” firms, which are largely unregistered—and a “transformational” entrepreneurial sector that contributes the dynamism to the economy. And there are two salaried sectors: a formal salaried (or dependent) sector that provides formal labor contracts to workers and an informal salaried sector that does not.

Table I.1 shows that these sectors must be treated separately because they differ fundamentally in education, age, job tenure, earnings, and life-cycle patterns, which suggests that workers with distinct comparative advantages match to sectors with different characteristics. In particular, informal self-employed workers are fundamentally different from informal salaried workers; and informal salaried workers are fundamentally different from formal salaried workers. The nature and dynamics of these differences are as follows:

**Informality as a phenomenon is intimately related to a worker’s skill level.** Informal workers have less education: 53 percent of informal salaried workers and 59 percent of informal self-employed workers have only primary education, compared with 24 percent of formal salaried workers and 28 percent of formal entrepreneurs; 8 percent of informal salaried workers and 9 percent of informal self-employed workers have any tertiary education, compared with 34 percent of formal salaried workers and 37 percent of formal entrepreneurs. How this plays out is not clear. On the one hand, the low remuneration that unskilled workers can get in the formal sector may lower the opportunity cost of starting a microfirm. On the other hand, low-skilled workers seeking formal salaried positions may find themselves disproportionately affected by labor legislations such as minimum wages.

**Variations in tenure suggest that formal salaried and self-employment (both formal and informal) are destination sectors.** Both formal self-employed (FSE) work and informal self-employed (ISE) work (eight and six years, respectively) have the longest tenures, followed by formal salaried

**TABLE I.1 Fundamental Differences in Education, Age, and Sector Duration of Labor Force in Latin America and the Caribbean**

|                                           | All workers | FS   | IS   | FSE  | ISE  |
|-------------------------------------------|-------------|------|------|------|------|
| Share                                     | 100%        | 43%  | 23%  | 5%   | 29%  |
| Female                                    | 41%         | 43%  | 41%  | 34%  | 41%  |
| Primary education                         | 42%         | 24%  | 53%  | 28%  | 59%  |
| High school                               | 38%         | 42%  | 38%  | 35%  | 32%  |
| College                                   | 20%         | 34%  | 8%   | 37%  | 9%   |
| Age                                       | 39          | 38   | 34   | 46   | 43   |
| Tenure (in years)                         | 4           | 5    | 2    | 8    | 6    |
| Earnings 25 <sup>a</sup> /50 <sup>b</sup> | 0.65        | 0.94 | 0.57 | 1.00 | 0.41 |
| Earnings 50 <sup>a</sup> /50 <sup>b</sup> | 1.00        | 1.28 | 0.79 | 1.64 | 0.74 |
| Earnings 75 <sup>a</sup> /50 <sup>b</sup> | 1.57        | 2.05 | 1.10 | 3.00 | 1.29 |

Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The income data correspond to hourly earnings from the primary occupation and include the following 14 Latin American and Caribbean countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Panama, Paraguay, Peru, and Uruguay. The 25/50/75 numbers refer to percentiles. FS = formal salaried; FSE = formal self-employed; IS = informal salaried; ISE = informal self-employed; SEDLAC = Socio-Economic Database for Latin America and the Caribbean.

a. Refers to the group in the column, for example, all workers, formal salaried, etc.

b. Refers to the entire workforce.

work (five years). While the long tenure in self-employment could represent workers permanently discouraged from their search in the formal sector, chapter 1 documents a high share of “opportunity” entrants to both types of self-employment, a share that increases with age. Together, these data suggest that self-employment is a source of long-term stable employment and (emphatically) suggest that self-employment is not a substitute for unemployment—as suggested by Donovan et al. (2023)—which has an average tenure of about three months.<sup>4</sup>

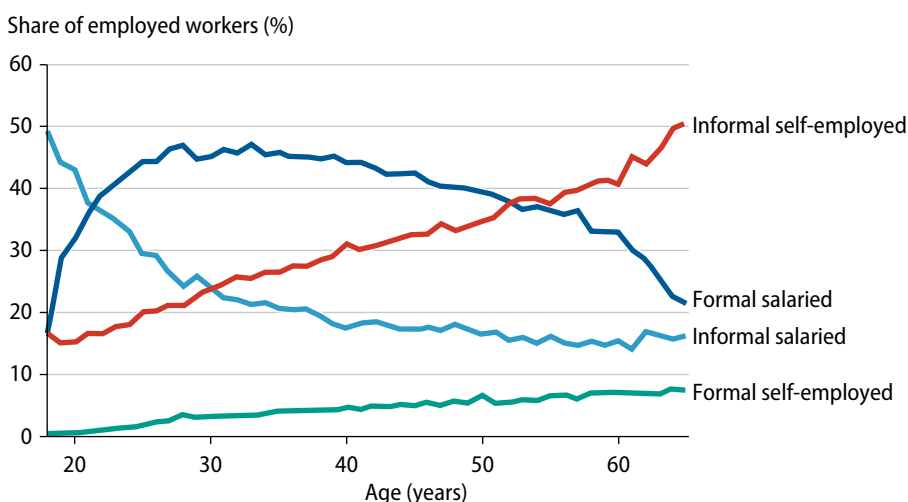
By contrast, informal salaried work has a very different profile—the shortest tenure (two years), which suggests low job attachment owing to, perhaps, too few job-specific skills, or that the sector serves as a platform for searching for another, better job (Balan et al. 1973; Gonzalez-Prieto et al., forthcoming; Maloney 1999).

**Life-cycle patterns also suggest sectors have very different roles.** On average, informal salaried workers are the youngest workers, at 34 years. The oldest are those in formal self-employed positions (46 years old) and informal self-employed positions (43 years old) followed by those in formal salaried

positions (38 years old). A closer look at the life-cycle patterns (figure I.3) shows that the share of the workforce in informal salaried positions peaks among the youngest and then declines steadily with age, suggesting the role of the sector is one of entry and search with attendant information failures and high susceptibility to bearing the brunt of nominal rigidities (as suggested in chapter 3). However, self-employment, both formal and informal, grows steadily across the life cycle, drawing from both the informal and formal salaried. Again, while the shifting from formal salaried to self-employment could reflect age-related obsolescence, chapter 2 will confirm that entry for opportunity among the informal actually rises with age, more consistent with the credit constraints highlighted in the advanced-country literature.

**Earnings vary across sectors, but earnings vary more within sectors.** Not controlling for skills, table I.1 shows that formal self-employment pays best at 64 percent above median wages followed by formal salaried work at 28 percent above the median. Informal salaried work follows at 79 percent of the median and then informal self-employment at 74 percent. However, the variance within sectors (75th/25th ratio of earnings percentile

**FIGURE I.3 Sectoral Composition Across the Life Cycle**



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The figure reports the percentage of workers who are in each employment category by age in LAC. Each line represents the unweighted average across countries. The sample includes 16 LAC countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Peru, Uruguay. For countries without information for 2023 in SEDLAC, the last year of available data is used: Chile, 2022; Mexico, 2024. LAC = Latin America and the Caribbean.

between 2 and 3), exceeds that across sectors (1.62), and there are substantial overlaps in the distributions of the three sectors: earnings at the 75th percentile in informal self-employment equal those at the 50th percentile of formal salaried work; earnings at the 75th percentile for informal salaried work are well above the 25th percentile for formal salaried work.

These comparisons do not correct for age, education, or for the value of amenities that each sector offers yet they still suggest broad overlaps in desirability viewed only from an earning point of view. Self-employment has some of the lowest earnings—perhaps capturing the “subsistence” component of some own-account workers—as well as some of the best paid workers in the labor market. Chapter 3 brings together the data on amenity value, taxation, and earnings at the individual level to argue that, for most countries, the sectoral gaps in earnings are largely explained by the compensating amenities differential; therefore, assuming a competitive market as the base case from which to experiment is valid.

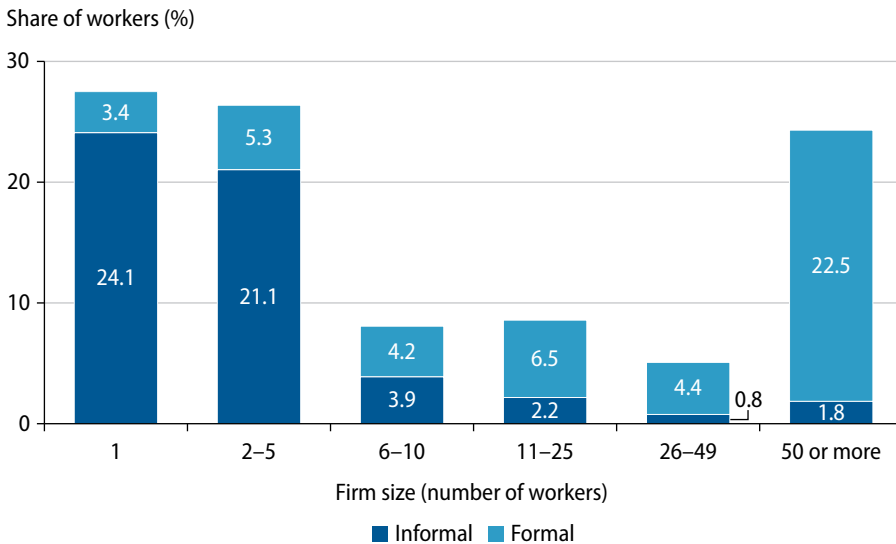
These four sectors form the building blocks of the model and their motivation and behavior are discussed in the subsequent chapters.

### **Self-Employment as the Epicenter of the Informal Sector**

Figure I.4 reveals that self-employment—both own-account workers and microentrepreneurs—is the epicenter of informality, and understanding informality means understanding the phenomenon of microfirms and those who work for them. Forty-five percent of workers, accounting for 83 percent of informal workers, are found either running firms or working for firms with five or fewer employees total.

Despite its centrality, self-employment may be the most misunderstood sector of the labor market. The academic literature has often overlooked it, focusing instead on salaried workers, or treating the sector as a form of disguised unemployment generating subsistence earnings from which one should expect little in terms of growth. On the other hand, more in the spirit of the economist Hernando de Soto (1989), some equate self-employment with transformational entrepreneurship—a sector full of innovative risk-takers working out of their garage and creating high-potential firms eager to expand. Each viewpoint provides a radically different view of the quality and growth-contributing potential of the driver of more than 50 percent of the labor force in the LAC region.

**FIGURE I.4 Most Informal Workers in LAC Work in Very Small Firms**



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The figure shows the share of workers in the workforce by size of employer and formality status. Firm size is measured by number of workers. Each bar is a simple average of country-level data in 2023. The sample includes 15 LAC countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Panama, Paraguay, Peru, and Uruguay. For countries without information for 2023 in SEDLAC, the last year of available data is used: Chile, 2022, and Mexico, 2024. LAC = Latin America and the Caribbean.

Chapters 1 and 2 bring together substantial evidence from labor, enterprise, entrepreneurship, and own-generated surveys that document the motivations for and patterns of entry, the ambitions for growth, the stated barriers to entry and expansion, and the attitudes toward formalization that permit comparing their dynamics with advanced-country patterns and with predictions of mainstream models.

### The Logic of the Informal Salaried (Dependent Worker) Sector

Salaried workers without labor contracts constitute 22 percent of the workforce and 40 percent of the informal sector, two-thirds of which are found in microfirms<sup>5</sup>. The rest work in larger firms and the decisions of those firms on whether to formalize have been modeled in several excellent studies over the past decades (Meghir et al. 2015; Ulyssea 2018; Ulyssea 2020; Haanwinckel and Soares 2021; Dix-Carneiro et al. 2026; Imbert and Ulyssea 2026). This volume presents results on another margin along which large firms evade full compliance: in particular, through what Feinmann et al. (forthcoming) call “payments under the table.” However, since this group

accounts for 13.2 percent of the informal sector and 7.4 percent of the total labor force, the authors largely abstract from these larger firm dynamics in the framework and build on the informal salaried/microfirm nexus.

As chapter 3 discusses, the sector can be further disaggregated into younger workers who appear to be using it as a stepping stone to other sectors, prime-age workers with low job attachment, and unpaid workers. These dependent workers, by definition, have less agency—they are not their own bosses, and earlier surveys from Brazil suggest that a larger share of this group resembles necessity entrants who would prefer formal jobs. The evidence offered from the WTP data broadly confirms this. In the end, what distinguishes the sector most from a modeling point of view is the very low skill level that leads these workers to be allocated to low productivity activities, particularly in the informal self-employed sector.

### **The Centrality of the Transformational “Formal” Entrepreneurial Sector in Reducing Informality and Improving Job Quality Across the Economy**

Even if informality is primarily a microfirm phenomenon, it is possible that policies toward the transformational entrepreneur sector may be far more important than those oriented directly toward the informal sector in reducing its size and improving worker welfare. Over the longer term, it is the transformational entrepreneurs that will propel the economy forward and create high-quality jobs to draw workers out of self-employment and informality. Their skills and the enabling environment they work in determine how many jobs they will create as they grow, the de facto formality of those jobs in some cases, and how much investment and innovation they will undertake. Therefore, reducing informality may involve systemic reforms that, at first glance, appear to have no direct impact on informality. To demonstrate the magnitude of these effects requires a general equilibrium model of the economy.

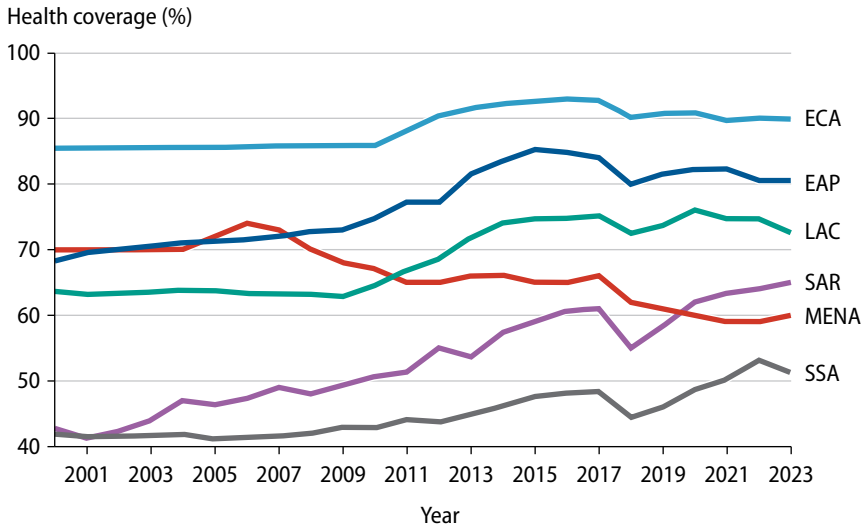
### **Policy to Reach the Three Goals of Coverage, Quality Jobs, and Growth**

Building on the idea that workers are choosing to consider earnings, benefits, and amenities does not imply that they are well-off or even happy—only that they would not necessarily be better off in the formal salaried jobs for which they are qualified. Being the boss of your own arepa stand may be preferred to the monotony of washing dishes as a salaried worker in a formal restaurant; working parents who must figure out childcare may prefer the

flexibility offered by a business they own and run themselves to the rigid schedule of salaried work—even if health services or pensions must be pieced together. Nor do these considerations imply that they are fully informed or rational. They do, however, suggest that workers in developing countries do not differ fundamentally from their counterparts in advanced economies in their job selection calculus.

That this job selection calculus may lead those workers to eschew formal sector protections does not imply that policy makers should not be concerned with guaranteeing that these workers and their families have access to health and pension benefits. It does, however, force a reconsideration of what constitutes efficient social policy design in this context. In particular, it suggests a much weaker mapping between legal labor formality and job quality than is asserted in the literature—and that mapping is getting weaker with each passing year. Exploring and quantifying amenity values of distinct job types directs the focus more toward what workers do and do not value among amenities and benefits and the different ways that families put together the social protections and other services they need. On the ground, it has been known for decades that the distinction was overdrawn: informal workers receive some benefits, like paid vacation and a “13th” salary, and the “lighthouse effect” documented that informal wages are often influenced by the formal sector minimum wage. Chapters 1 and 3 explore this blurring of the formal/informal line further using the WTP data, and these chapters introduce the importance of household optimization: that a worker may legally lack benefits but be in a household where others do have benefits and where earnings and social protection are jointly optimized. More dramatic, however, has been the expansion of noncontributory/universal pension and health programs over the past decades that has significantly reduced the importance of informality as a marker of coverage, welfare, and job quality. As figure I.5 shows, though formal contracts cover roughly 45 percent of workers in the LAC region, health coverage has expanded to cover 75 percent of people. In Peru, only 35 percent of workers have formal labor contracts, yet among informal workers, 85 percent have health insurance (refer also to OECD and OISS 2024).

Similarly, on the firm side, chapter 2 argues that the skill levels of the vast majority of mom-and-pop microfirms imply that they are optimally very small and, therefore, that they may not need to participate in state institutions and would not grow more if they did. Both subjects shift the discussion of coverage, quality, and growth away from formalization per se, and more toward the fundamentals that, from a cost-benefit calculation, may explain why so many workers open, and work for, microfirms in the first place.

**FIGURE I.5** Changes in Health Coverage, by Region, 2001–23

Source: Original figure based on data from the World Health Organization (WHO), UHC (Universal Health Coverage) Service Coverage subindex on service capacity and access, accessed 2026 (<https://www.who.int/data/gho/data/indicators/indicator-details/GHO/uhc-sci-components-service-capacity-and-access>).

Note: Regions are defined according to the World Bank's classification. The figure reports health coverage as measured by the UHC Service Coverage subindex on service capacity and access. EAP = East Asia and Pacific; ECA = Europe and Central Asia; LAC = Latin America and the Caribbean; MENA = Middle East and North Africa; SAR = South Asia; SSA = Sub-Saharan Africa.

Chapter 4 takes the behavioral elements explored in chapters 1 through 3 and incorporates those elements into the model to capture the allocation of workers across the informal self-employed microfirm sectors and the “transformational” entrepreneurial sectors, the distribution of firm size, the degree of formality, and the level of productivity and, hence, job quality.

The aspiration is that this tool can lead to a consistent and comprehensive approach to reach the three goals of greater coverage of social protection, higher-quality jobs, and economic growth in the way that piecemeal reforms—such as making it easier for firms to register or manipulating the minimum wage—have not. The model also highlights the important trade-offs policy makers face with different policy levers.

## Notes

1. A substantial number of World Bank reports document the prevalence, persistence, and policy relevance of labor informality. Recent publications include a global cross-country assessment by Ohnsorge and Yu (2022), as well as regional reports offering careful analyses of informality in specific contexts—albeit through different lenses—including the Middle East and North Africa (López-Acevedo 2023) and Southeast Asia (Bussolo and Sharma 2022).

2. And background work (Arias and Khamis 2008; Bosch et al. 2007; Bosch and Maloney 2008; Cunningham and Maloney 2001; Fajnzylber et al. 2009; Fiess et al. 2010; Maloney 1999).
3. Barreto et al. (2024) provide measures of job quality for LAC countries using household survey data based on the methodology developed by Brummund, Mann, and Rodríguez-Castelán (2018). Similarly, Hovhannisyan et al. (2022) provide job quality measures for a global sample using harmonized micro datasets considering four attributes: sufficient income to overcome poverty, access to job benefits, employment stability, and adequate working conditions. The International Labour Organization (ILO) defines “decent work for all” as productive work that delivers a fair income, with workplace security and social protection, prospects for development and social integration, freedom to organize, and equality of opportunity. ILO, “Measuring Job Quality: Difficult but Necessary,” ILOSTAT, <https://ilostat.ilo.org/measuring-job-quality-difficult-but-necessary/>.
4. Unemployment has the shortest tenure, ranging from one to two months in Chile, Colombia, Costa Rica, Guatemala, Paraguay, and Uruguay to six to seven months in Brazil and Mexico.
5. World Bank calculations using Socio-Economic Database for Latin America and the Caribbean (SEDLAC), jointly developed by CEDLAS (Universidad Nacional de La Plata) and the World Bank.

## References

- Arias, O., and M. Khamis. 2008. “Comparative Advantage, Segmentation and Informal Earnings: A Marginal Treatment Effects Approach.” IZA Discussion Paper No. 3916, IZA–LISER Network, December. <https://www.iza.org/en/publications/dp/3916>.
- Balan, J., H. L. Browning, and E. Jelin. 1973. *Men in a Developing Society*. University of Texas Press.
- Barreto, K., C. D. Bonilla, D. Sanchez, and H. Winkler. 2024. *The Quality of Jobs in Latin America and the Caribbean*. World Bank.
- Beylis, G., W. Maloney, and A. Zambrano. 2026. “Self-Employment and Development: Job Amenities, (Mis)allocation, and Informality.” Policy Research Working Paper, World Bank.
- Bosch, M., E. Goni, and W. F. Maloney. 2007. “The Determinants of Rising Informality in Brazil: Evidence from Gross Worker Flows.” Policy Research Working Paper 4375, World Bank.
- Brummund, P., C. Mann, and C. Rodríguez-Castelán. 2018. “Job Quality and Poverty in Latin America.” *Review of Development Economics* 22 (4): 1682–708.
- Bussolo, M., and Siddharth Sharma, eds. 2022. *Hidden Potential: Rethinking Informality in South Asia*. South Asia Development Forum. World Bank. <https://doi.org/10.1596/978-1-4648-1834-9>.
- Cunningham, W. V., and W. F. Maloney. 2001. “Heterogeneity among Mexico’s Microenterprises: An Application of Factor and Cluster Analysis.” *Economic Development and Cultural Change* 50 (1): 131–56.
- De Soto, H. 1989. *The Other Path: The Invisible Revolution in the Third World*. Translated by June Abbot. Harper and Row.

- Dix-Carneiro, R., P. K. Goldberg, C. Meghir, and G. Ulyssea. 2026. "Trade and Domestic Distortions: The Case of Informality." *Econometrica* 94: 573–618, supplement. <https://doi.org/10.3982/ECTA19378>.
- Donovan, K., W. J. Lu, and T. Schoellman. 2023. "Labor Market Dynamics and Development." *Quarterly Journal of Economics* 138 (4): 2287–325. <https://doi.org/10.1093/qje/qjad019>.
- Fajnzylber, P., W. F. Maloney, and G. V. Montes-Rojas. 2009. "Releasing Constraints to Growth or Pushing on a String? Policies and Performance of Mexican Micro-firms." *Journal of Development Studies* 45 (7): 1027–47.
- Feinmann, J., A. P. Franco, P. Garriga, N. Gonzalez-Prieto, R. Hsu Rocha, and M. Lauletta. Forthcoming. "Payments under the Table in Latin America: Evidence from Argentina, Brazil, Colombia, Chile, Mexico, and Peru," Background paper for this volume, unpublished.
- Fields, G. S. 2019. *Employment and Development: How Work Can Lead From and Into Poverty*. Oxford University Press.
- Fields, G. S., T. H. Gindling, K. Sen, M. Danquah, and S. Schotte, eds. 2023. *The Job Ladder: Transforming Informal Work and Livelihoods in Developing Countries*. Oxford University Press.
- Fiess, N. M., M. Fugazza, and W. F. Maloney. 2010. "Informal Self-Employment and Macroeconomic Fluctuations." *Journal of Development Economics* 91 (2): 211–26.
- Gonzalez-Prieto, N. and E. Oue. Forthcoming. "Entry, Screening, and Transition: Understanding Young Informal Salaried Work in LAC." World Bank.
- Haanwinckel, D., and R. R. Soares. 2021. "Workforce Composition, Productivity, and Labour Regulations in a Compensating Differentials Theory of Informality." *The Review of Economic Studies* 88 (6): 2970–3010. <https://doi.org/10.1093/restud/rdab004>.
- Harris, J. R., and M. P. Todaro. 1970. "Migration, Unemployment and Development: A Two-Sector Analysis." *American Economic Review* 60 (1): 126–42.
- Herreño, J., and S. Ocampo. 2023. "The Macroeconomic Consequences of Subsistence Self-Employment." *Journal of Monetary Economics* 136 (C): 91–106.
- Hovhannisyan, S., V. Montalva-Talledo, T. Remick, C. Rodríguez-Castelán, and K. Stamm. 2022. "Global Job Quality: Evidence from Wage Employment Across Developing Countries," IZA Discussion Paper No. 15565, IZA–LISER Network, September.
- Imbert, C., and G. Ulyssea. 2026. "Rural Migrants and Urban Informality: Evidence from Brazil." *Econometrica*.
- Jaar, D. 2024. "Self-Employment as Self-Insurance." University of Pennsylvania, November 6. <https://doi.org/10.2139/ssrn.5175208>.
- Jobs for the Future, Families and Workers Fund, W.E. Upjohn Institute for Employment Research, and Gallup. 2025. "The American Job Quality Study: 2025 State of the U.S. Labor Force." Gallup Inc. [https://www.jff.org/wp-content/uploads/2025/10/AmericanJobQualityReport\\_Final\\_10142025.pdf](https://www.jff.org/wp-content/uploads/2025/10/AmericanJobQualityReport_Final_10142025.pdf).
- Lopez-Acevedo, G., M. Ranzani, N. Sinha, and A. Elsheikhi. 2023. Informality and Inclusive Growth in the Middle East and North Africa. Middle East and North Africa Development Report. World Bank.
- Lucas, R. E. 1978. "On the Size Distribution of Business Firms." *The Bell Journal of Economics* 9 (2): 508–23.

- Maloney, W. F. 1999. "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico." *World Bank Economic Review* 13 (2): 275–302. <https://doi.org/10.1093/wber/13.2.275>.
- Meghir, C., R. Narita, and J.-M. Robin. 2015. "Wages and Informality in Developing Countries." *American Economic Review* 105 (4): 1509–46. <https://doi.org/10.1257/aer.20121110>.
- OECD and OISS (Organisation for Economic Co-operation and Development and Organización Iberoamericana de Seguridad Social). 2024. "Informality and Households' Vulnerabilities in Latin America: Data, Insights and Implications for Labour Formalisation Policies." OECD.
- Ohnsorge, F., and S. Yu, eds. 2022. *The Long Shadow of Informality: Challenges and Policies*. World Bank. <https://doi.org/10.1596/978-1-4648-1753-3>.
- Perry, G., W. F. Maloney, O. S. Arias, P. Fajnzylber, A. D. Mason, and J. Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. World Bank. <http://documents.worldbank.org/curated/en/326611468163756420>.
- Rosen, S. 1983. "The Equilibrium Approach to Labour Markets." NBER Working Paper 1165, National Bureau of Economic Research.
- Sinha, Nistha, Gladys Lopez-Acevedo, Marco Ranzani, and Adam Elsheikhi. 2023. *Informality and Inclusive Growth in the Middle East and North Africa*. Middle East and North Africa Development Report. Washington, DC: World Bank. DOI: 10.1596/978-1-4648-1988-9.
- Ulyssea, Gabriel. 2018. "Firms, Informality, and Development: Theory and Evidence from Brazil." *American Economic Review* 108 (8): 2015–2047. <https://doi.org/10.1257/aer.20141745>
- Ulyssea, Gabriel. 2020. "Informality: Causes and Consequences for Development." *Annual Review of Economics* 12: 525–546. <https://doi.org/10.1146/annurev-economics-082119-121914>.

# Job Amenities and the Attraction of Self-Employment

1

## Self-Employment and Microfirms as the Central Axis of Analysis of the Informal Sector

The informal self-employed sector, consisting of own-account workers and microfirms of five or fewer total workers (box 1.1), forms the epicenter of the larger informal sector. Although informal workers are found across the economy, in Latin America and the Caribbean (LAC), 83 percent of informal workers, including 67 percent of informal salaried workers, are found in microfirms.<sup>1</sup> Hence, understanding informality is a matter of understanding the *razón de ser* (reason for being) and the logic of own-account workers and microfirms—and policy needs to reflect that for several reasons.

First, how self-employment is viewed determines how the quality of jobs generated in the self-employed sector is viewed. In the advanced economies, it is acknowledged that self-employment and the related drive to create and run a business (entrepreneurship) consists of a combination of “necessity” entrants and those entrants who see the “opportunity” and appreciate the associated amenities—being one’s own boss, greater flexibility, and the potential for higher income. The same framing applies to developing countries, where the sector is multiples larger. A traditional view—with roots in Harris and Todaro (1970) and reappearing in Donovan et al. (2023), Fields (2019), Fields et al. (2023), Herreño and Ocampo (2023), and Jaar (2024)—regards the sector as essentially disguised unemployment; or in a related form, Akcigit et al. (2021) and Schoar (2010) treat it as a source

of “subsistence” employment. However, an alternative view, articulated in the report *Informality: Exit and Exclusion* (Perry et al. 2007), along with supporting work,<sup>2</sup> argues that most of the sector is driven by opportunity and that the majority of workers are effectively indifferent to the jobs that they could get in the formal salaried sector. Informal self-employment offers equally “decent” or “good” jobs.

Second, determining the relative shares of “necessity” and “opportunity” entrepreneurs is critical for the design of both labor market policy and social safety nets. If most workers are rationed out of formal sector jobs, then policy should focus on reducing the barriers and distortions (“rigidities”) in the labor market that are preventing them from obtaining a formal sector job. Relatedly, any transfer or universal social program would improve the welfare of excluded workers. However, if self-employment is preferable and just a choice among a continuum of jobs with differing characteristics, then there is less evidence of extremely distortionary labor market rigidities. Transfers and universal social programs that are financed through taxes on formal firms and employees will encourage entry into the informal sector and will serve implicitly as a tax on the modern sector—which drives growth and innovation—and constrain its development (Levy 2008).<sup>3</sup>

Third, this vast share of the labor force running very small firms, in theory, should provide a reservoir of entrepreneurship that might power growth. Understanding why this does not appear to happen is critical for a growth strategy.<sup>4</sup> If, as de Soto (1989) argued, barriers to formalization prevent the release of entrepreneurial dynamism, then removing those barriers is of utmost priority. However, if this sector has few latent enterprising Steve Jobs—that is, entrepreneurs who can take small businesses and grow them into giant productive businesses—then the focus should be on why productivity growth is slow in the modern sector.

### **BOX 1.1 The Various Types of Self-Employment**

This volume discusses the following types of self-employment:

*Self-employed:* Individuals who work for themselves rather than as wage employees. This category ranges from own-account workers and owners/operators of small “mom-and-pop” shops to owners of large, dynamic firms.

(Continued on next page)

**BOX 1.1 The Various Types of Self-Employment (*continued*)**

*Own-account workers/nonemployer firms:* Self-employed individuals with no employees.

*Employer firms:* Businesses that employ at least one worker beyond the owner.

*Microfirms:* Businesses with zero to five employees, including own-account workers and very small employer firms.

*Household enterprises:* Businesses that only employ household members, usually classified as “unpaid” workers.

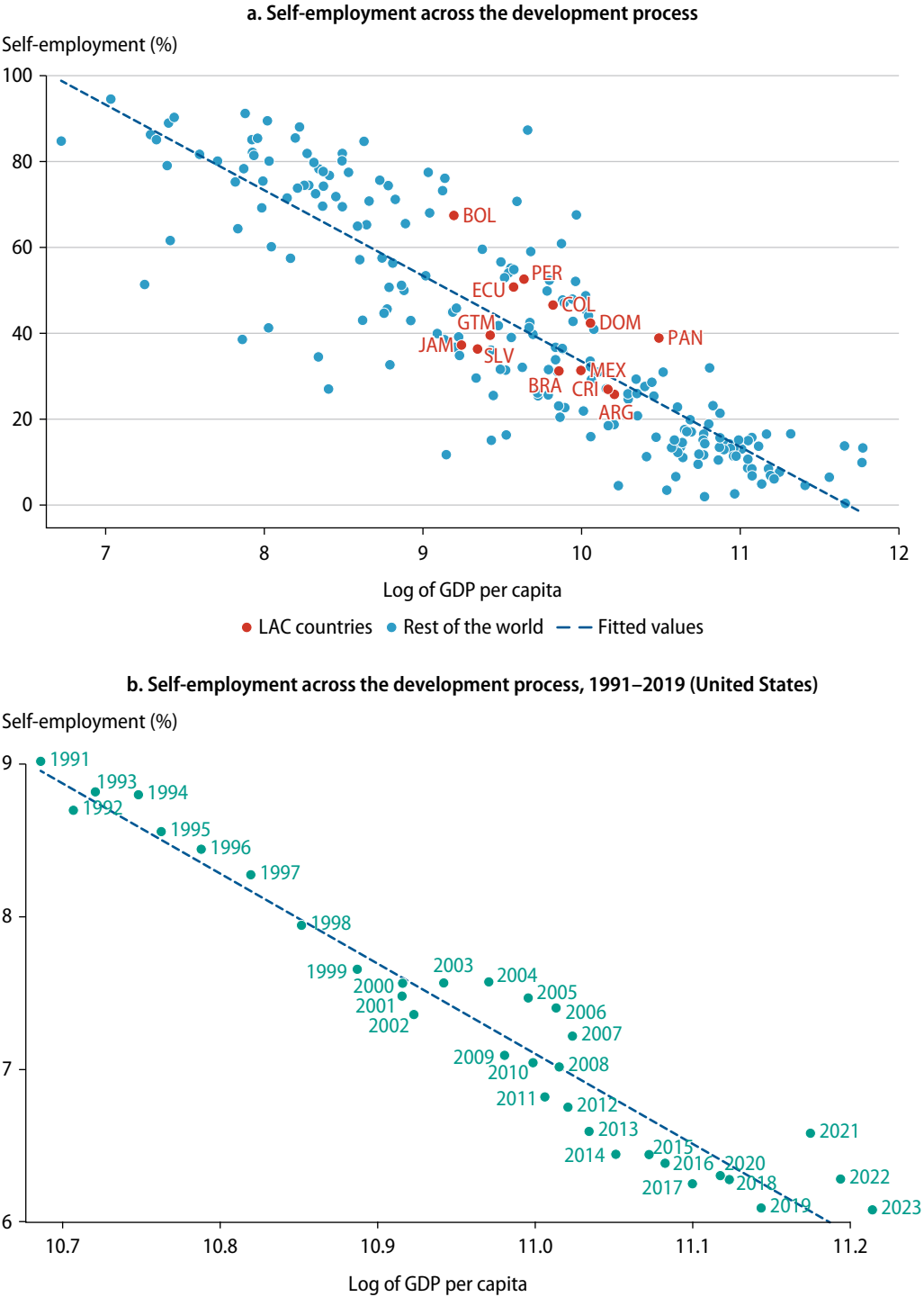
*Transformational entrepreneurs:* A subset of entrepreneurs with high growth potential and the capability of innovating and creating jobs at scale.

**Self-Employment as a Global Phenomenon**

Self-employment encompasses a very large share of the working population globally, but it steadily decreases with the level of development (figure 1.1). In Africa, self-employment accounts for 80 percent of employment; in Latin America, about 50 percent; and in the advanced economies, about 10 percent. Globally, the vast majority of the self-employed are own-account workers or owners of microfirms.

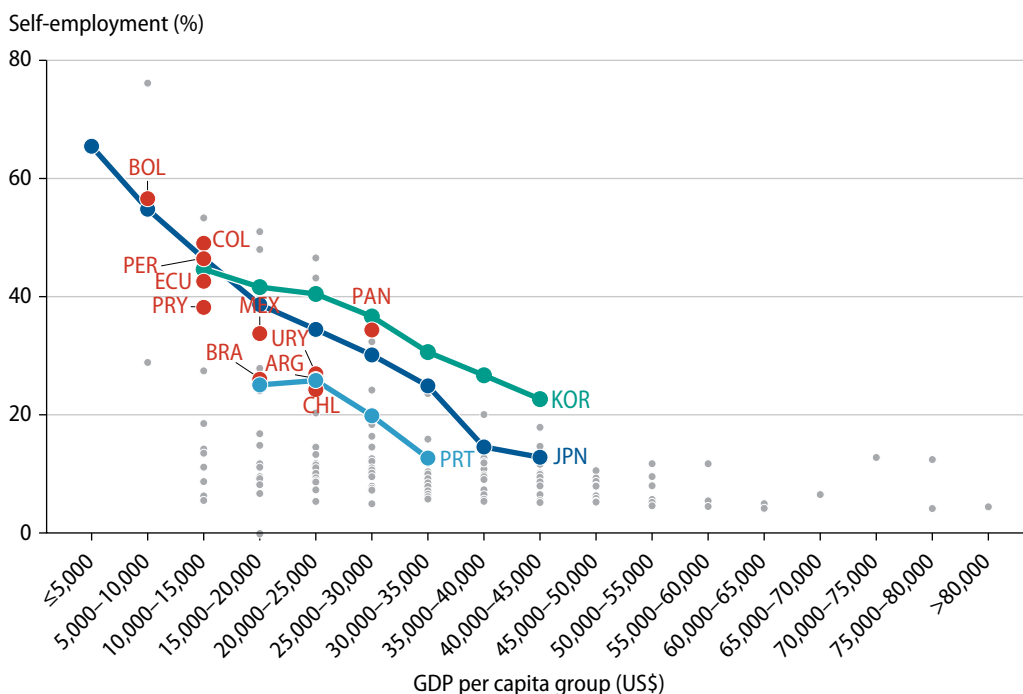
This pattern is replicated *within* countries. A decline from the 1870s to 1970 has been documented for France, Germany, Italy, Japan, and the United States (Blau 1987), and continues to this day, having fallen 3 percentage points in the United States since the 1990s (figure 1.1, panel b). Figure 1.2 shows that Latin America is close to the historical trend of Japan, the Republic of Korea, and Portugal when they had the region’s level of income. This decline is entirely due to the decline in own-account workers; employer firms actually rise with development (Maloney et al. 2025). There is nothing intrinsically pathological about the level of self-employment in Latin America and the Caribbean.

**FIGURE 1.1 Self-Employment Declines with the Level of Development**



Source: World Bank World Development Indicators (<https://databank.worldbank.org/source/world-development-indicators>).  
 Note: In panel a, select Latin America and the Caribbean countries are highlighted in red. International Organization for Standardization (ISO) country codes are available at <https://www.iso.org/obp/ui/#search>. GDP = gross domestic product; LAC = Latin America and the Caribbean.

**FIGURE 1.2 Historical Self-Employment Rate by GDP per Capita in Selected Advanced Economies Compared with Current Data of Latin America and the Caribbean**



Source: World Bank calculations based on SEDLAC, OECD, and Penn World Table data.

Note: Data points for LAC countries are from 2019. KOR refers to the Republic of Korea. Dollar amounts are in US dollars. Data labels use International Organization for Standardization country codes, <https://www.iso.org/obp/ui/#search>. GDP = gross domestic product; LAC = Latin America and the Caribbean; OECD = Organisation for Economic Co-operation and Development; SEDLAC = Socio-Economic Database for Latin America and the Caribbean.

## The View from the Advanced Economies

This alignment of self-employment levels in developing countries with those historically found in the advanced economies suggests that a high level of self-employment is not a developing country or even a Latin America pathology; it is a normal phase that countries grow out of as they develop. Further, the debate around the nature of self-employment in developing countries, and the multiple roles it may play in the labor market, appears in the literature examining advanced economies as well.

An early paper on self-employment in the United States (Evans and Leighton 1989) saw these workers as being disadvantaged “misfits” cast off from wage work, or relatively low-wage workers who changed jobs frequently and who experienced frequent or long spells of unemployment. However, Evans and Leighton (1989) also found the self-employed to have a more internal “locus of control,” believing that their performance depends on their own actions. Further, Blanchflower and Oswald (1990) noted that any correlation with unemployment is weak.

A more recent and now much larger literature takes the opposite view and stresses the attractions or “amenity value” of being self-employed, an area getting more attention generally in the literature (Eriksson and Kristensen 2014; Garin et al. 2024; Maestas et al. 2023; Mas and Pallais 2017; Wiswall and Zafar 2018). Hurst and Pugsley (2011), examining nascent entrepreneurs surveyed in the Panel Study of Entrepreneurial Dynamics (PSED) II, found that 50 percent of US entrepreneurs reported the desire to “be own boss” or “have flexibility over schedule” as either their primary or secondary motivation for starting a business.<sup>5</sup> About 34 percent reported that they wanted to “generate income”—as is presumably the case with most jobs—although very few people reported starting the business because of a lack of other employment options. These owners tend to want to remain small, both because growing may reduce the amenities or because for many firms—such as those run by dentists or plumbers—there are no obvious scale economies.

Similar findings emerge from the United Kingdom. Smeaton (2003) finds that only 16–26 percent of the self-employed cited “unemployment/redundancy” as a motivating factor for entry. The most cited reason for men (39 percent) was a preference for being one’s own boss. Dawson et al. (2009) find the need for “independence” (30.2 percent), followed by wanting more money (12.7 percent) and “seeing an opportunity” (12.6 percent) as positive motivations, with being made redundant (9.4 percent) and lack of “availability of jobs locally” (3.4 percent) as distant push factors. Additionally, Dawson et al. (2009) mirror most others in finding that the most important difference between men and women is that a much higher share of women (22 percent in this case) cite “family commitments” as a reason for choosing self-employment compared with a much smaller share of men (only 2 percent); fewer women cited higher remuneration as motivation.

For Canadians, Hughes (2006) reports that 42 percent of men and 24 percent of women cite “independence/freedom” as the most important motivator for entering self-employment. The next most cited reasons are “work-family balance” and “flexibility of hours” for women and “challenge” and “prospects of more money” for men. Overall, Hughes (2006) suggests that more than 71 percent of men can be classified as “opportunity” entrepreneurs, with only 22 percent pushed into self-employment as a result of the lack of other suitable opportunities. Benz and Frey (2003), using longitudinal data from Germany, Switzerland, and the United Kingdom, find that the higher levels of subsequently reported job satisfaction among those transitioning into self-employment are associated with an absence of hierarchy and sense of independence.

In sum, there is a mix of motivations for self-employment, with nonfinancial benefits weighing heavily in the motivation for entry. The vast majority of

the self-employed in the advanced economies enter to be their own boss, gain flexibility, and make more money. For women, the high valuation placed on the flexibility to balance home responsibilities with income earning is consistent across countries.

### **The Fuzzy Distinction Between “Opportunity” and “Necessity” Self-Employment**

The bifurcation of motivations into opportunity and necessity is necessarily fuzzy. Opportunity is clear when respondents say that they want to be their own boss, value independence, want to make more money, and similar financial and personal reasons. Interpreting responses saying they entered self-employment for necessity is ambiguous—after all, most workers *need* to work to feed their families and meet other necessities. Empirically, as will be seen in the next section, one-quarter of workers in member countries of the Organisation for Economic Co-operation and Development (OECD) say they enter for both opportunity *and* necessity reasons; another one-quarter of workers say they enter solely for necessity reasons. The one-third of owners of small firms in the United States who say they started their business to generate income (Hurst and Pugsley 2011) are, arguably, pointing to a lack of alternatives.

Why there are no alternatives is the critical next question. If it reflects the fact that the self-employed do not have the skills or temperament to support aspirations—after all, not all soccer enthusiasts will be able to make a living as pros—then the informal job may in fact be the best quality job they can achieve. If workers desire and are qualified for a formal salaried job but encounter some barriers (“rigidities”) in the labor market preventing them from obtaining such a job, including during economic downturns, then self-employment would be more akin to a period of unemployment, when workers use the sector as a base for searching for a more secure and higher-quality job. The distinction becomes less clear in the case of displaced older workers who find employers unwilling to invest in workers with a limited work lifespan or, perhaps, depreciated human capital or perceived lower energy. These older workers may well prefer the salaried job they had, but the market is effectively saying they are not qualified for it anymore.

Relatedly, the term “subsistence”—as suggested by Akcigit et al. (2021) and Schoar (2010)—is not helpful in characterizing the sector. Table 1.1 shows great overlap in earning distributions; those individuals choosing to enter self-employment for the opportunity to gain higher income or greater amenities state that they consider themselves as well-off working in informal jobs as they would have been with the salaried jobs they forewent—which in

most economies of the region are not at the subsistence income level. If by “subsistence” what is meant is that these firms’ steady state is very small, the mom-and-pop moniker that Lucas (1978) advocated for better captures the logic.

**TABLE 1.1 Motivations for Self-Employment Reported in Labor Market Surveys for Brazil and Mexico**

**a. Brazil**

|                                                      | Pre-prime |           | Prime   |           |
|------------------------------------------------------|-----------|-----------|---------|-----------|
|                                                      | Men (%)   | Women (%) | Men (%) | Women (%) |
| <b>Would not like to be a formal sector employee</b> | 51.21     | 42.03     | 68.87   | 55.56     |
| <b>Reason for not wanting to be formal</b>           |           |           |         |           |
| Earn more in current job                             | 15.74     | 11.30     | 19.54   | 10.91     |
| Competing household chores                           | 0.00      | 24.47     | 0.12    | 28.79     |
| Need time for other activities                       | 2.91      | 7.54      | 2.49    | 6.53      |
| Happy with the current job                           | 69.74     | 48.26     | 65.80   | 45.06     |
| Do not want to undertake requirements to be formal   | 10.72     | 7.19      | 9.96    | 6.67      |
| Other                                                | 0.89      | 1.25      | 2.08    | 2.04      |

**b. Mexico**

|                                               | Pre-prime |           | Prime   |           |
|-----------------------------------------------|-----------|-----------|---------|-----------|
|                                               | Men (%)   | Women (%) | Men (%) | Women (%) |
| <b>Main reason you left your previous job</b> |           |           |         |           |
| Fired, firm closed, contract end              | 24.22     | 17.52     | 26.38   | 22.31     |
| Low pay                                       | 14.74     | 8.76      | 12.52   | 6.85      |
| To be independent                             | 31.09     | 30.13     | 36.61   | 22.45     |
| Retired                                       | 0.00      | 0.00      | 0.50    | 0.72      |
| Moved                                         | 1.06      | 1.97      | 2.43    | 4.19      |
| Married                                       | 3.44      | 13.76     | 1.05    | 15.39     |
| Illness                                       | 0.91      | 1.85      | 2.04    | 5.20      |
| Other                                         | 24.54     | 26.01     | 18.48   | 22.89     |

Source: 1990 National Survey by Household Survey (PNAD) (<https://webapps.ilo.org/surveyLib/index.php/catalog/8468>) and the 2012 National Survey of Micro-Enterprises (ENAMIN) (<https://en.www.inegi.org.mx/programas/enamin/2012/>). Age-group disaggregation was constructed using data from the 1990 PNAD for Brazil and the 2012 ENAMIN for Mexico.

Note: For Mexico, categories are aggregated as follows: *Fired/firm closed/contract end* includes layoff or staff reduction, business closure or bankruptcy, contract termination, and labor or union conflict. *Low pay* refers to seeking higher income. *To be independent* includes starting one’s own business or activity. *Retired* corresponds to retirement or pension receipt. *Moved* refers to changes in activity or firm relocation to another city or country. *Married* includes pregnancy or family responsibilities. *Illness* refers to illness or disability. *Other* includes personal and other unspecified reasons. Observations of individuals who still hold a job or another business are excluded.

## Developing Countries Share the Global Preference for Self-Employment

Four distinct types of data show that the self-employed in developing countries are similar to their counterparts in advanced economies and indicate that employment, including informal self-employment, is often a desirable sector that workers aspire to and not a distant “second-best.”

### Global Labor Attitude Surveys

The International Social Survey Programme (ISSP)<sup>6</sup> asked random samples of individuals in numerous countries the question: “Suppose you were working and could choose between different kinds of jobs. Which of the following would you choose? I would choose ... (1) Being an employee, (2) Being self-employed, (3) Can’t choose.” Early versions of the survey showed that about 50 percent of all workers and only slightly fewer salaried workers in Germany, the United Kingdom, and the United States would prefer to be self-employed, far more than actually were (Blanchflower and Oswald 1990).

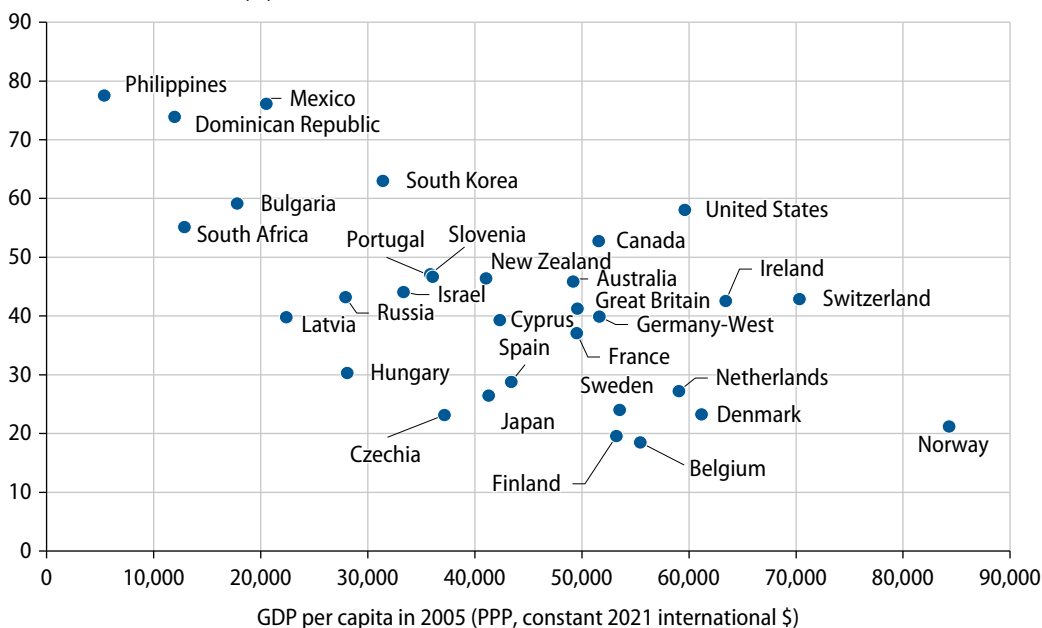
Revisiting later versions of the ISSP that expanded the sample reveals the same downward-sloping relationship in attitudes with income found in self-employment (figures 1.1 and 1.2). Among developing/middle-income countries, the vast majority of workers in the Dominican Republic (74 percent), Mexico (79 percent), and the Philippines (83 percent), *and between 70 percent and 80 percent of salaried workers*, reported wanting to be self-employed. South Africa and Bulgaria are lower (55–60 percent), the latter leading the ex-Soviet economies Czechia, Hungary, Latvia, and the Russian Federation that are below trend, perhaps reflecting 80 years of Soviet systemic discouragement of entrepreneurship and the repression of Black enterprises under apartheid in South Africa. These responses are highly correlated with the actual share of the workforce in self-employment, although generally at about half the “desired” rate (figure 1.3). Most workers appear to value the amenities offered by self-employment, even if, in the end, they choose not to enter the sector.

### Labor Force Surveys

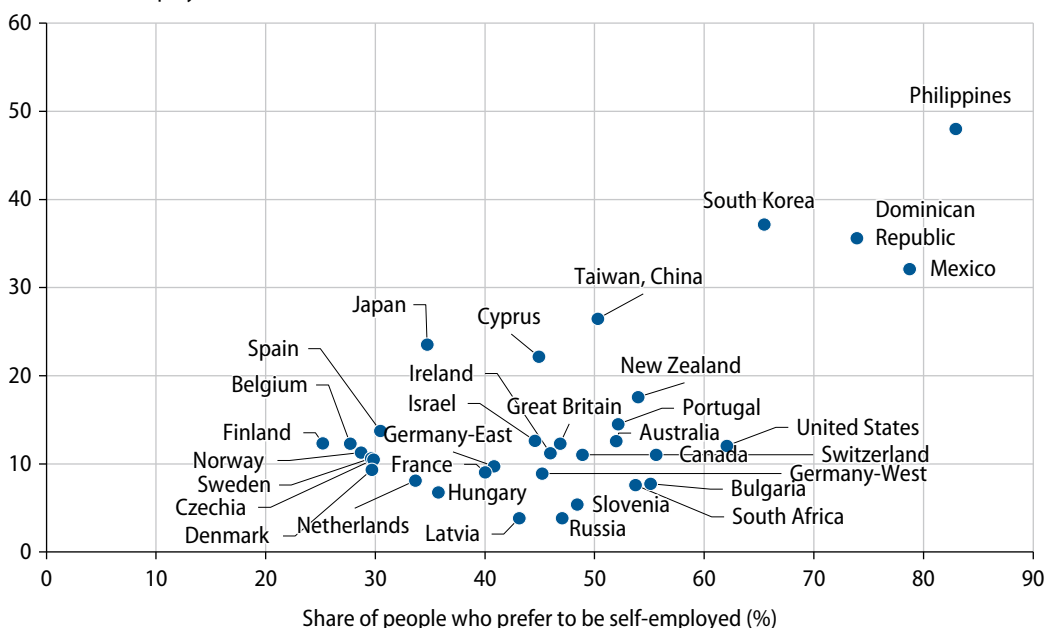
The ISSP findings from the LAC region confirm (much) earlier evidence from labor force surveys of LAC countries (table 1.1). In Brazil, almost two-thirds of informal self-employed report that they are not looking for a formal job because they are happy with their current work or earn more.

**FIGURE 1.3 Workers' Preferences for Self-Employment and Current Employment Status****a. Share of salaried workers who prefer self-employment**

Share of salaried workers (%)

**b. Share of self-employed workers and preference for self-employment**

Share of self-employed workers (%)

Source: ISSP data set ([https://search.gesis.org/research\\_data/ZA6770](https://search.gesis.org/research_data/ZA6770)).

Note: Historical names are used for economies. In panels a and b, "South Korea" refers to the Republic of Korea, and "Germany-West" refers to the Federal Republic of Germany. In panel b, "Germany-East" refers to the German Democratic Republic. "Russia" refers to the Russian Federation. GDP = gross domestic product; ISSP = International Social Survey Programme; PPP = purchasing power parity.

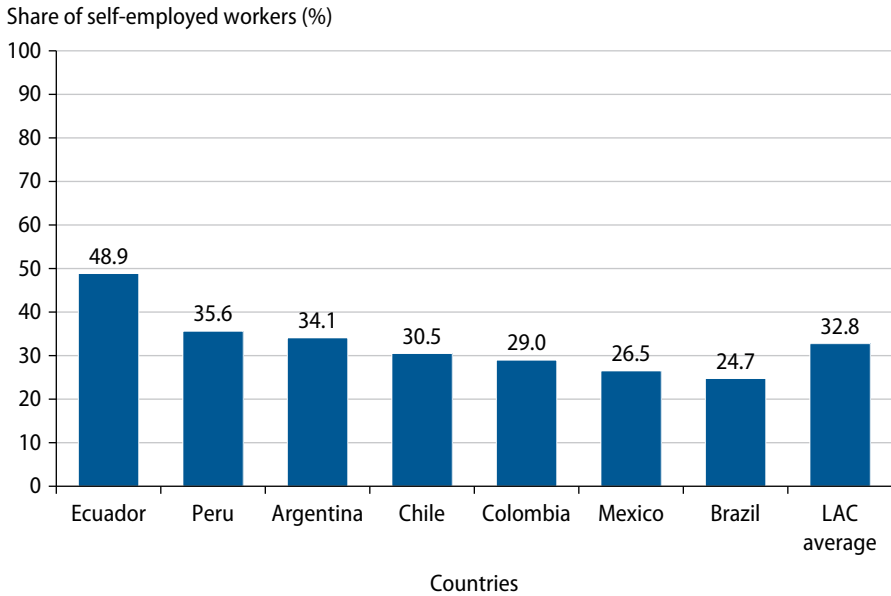
In Mexico, about 60 percent cite reasons for leaving their last job and becoming informal self-employed as the desire for independence or higher pay. Separate studies for Mexico (Maloney 1999, 2004) found that 70 percent of those observed transiting from formal salaried to informal self-employment reported doing so for those reasons and gained 20 percent in income in the process. The remaining 30 percent is very close to the share of workers in Mexico who declared that they changed from one formal salaried job to another formal salaried job involuntarily (Beylis et al., forthcoming) and to findings for the United States that about 70 percent of job changes—most of which are within the formal sector—are voluntary (Gottschalk and Maloney 1985). Somewhat oddly, both Brazil and Mexico ceased collecting data on motivations 25 years ago, although in a recent survey from Colombia, 64 percent of informal self-employed report that they would prefer self-employment to a formal salaried job with the same earnings.<sup>7</sup>

Disaggregating the data shows that in Brazil, prime-age men are 18 percentage points less eager to move to a formal sector job (69 percent) than younger (pre-prime-age) men (51 percent), suggesting that younger workers are searching for better opportunities while the vast majority of prime-age workers are content where they are. Similarly, Mexican prime-age males are 5 percentage points more likely to report being self-employed for independence reasons than their younger counterparts.

### **Evidence from Discrete Choice Experiment Surveys**

To update this data, the Discrete Choice Experiment surveys undertaken for this project asked the question: “Are you actively looking for a formal job, or would you prefer to remain in your current job?” Of the self-employed in the region, 33 percent on average were looking for a formal job (figure 1.4). Ecuador has a small number of observations that potentially makes its result unreliable. On the other hand, it has both a high minimum wage and a fixed exchange rate that make labor market adjustment to shocks very difficult and may be correctly capturing that a larger fraction of the self-employed are, in fact, searching for better jobs. Though the question does conceivably allow for discouraged workers, the results are very much in line with the other evidence presented here.

**FIGURE 1.4** Share of Self-Employed Searching for a Formal Job



Source: Beylis, Garin et al. 2026.

Note: LAC = Latin America and the Caribbean.

### Global Microentrepreneurship Surveys

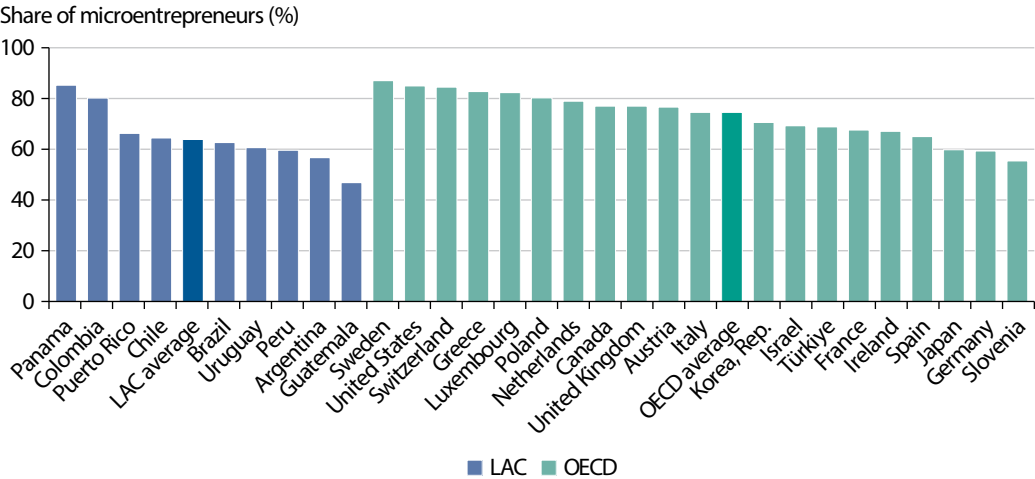
The Global Entrepreneurship Monitor, a research consortium, surveys a broad range of entrepreneurs around the world and generates results similar to those discussed previously (see table 1.2). Restricting the sample to microfirms with owners that have a high school education or less reveals motivations for business entry to be similar across both the LAC and OECD regions. About 20 percent of entrepreneurs enter to increase their incomes and about 30 percent enter for greater independence. About 10 percent more enter for a combination of opportunity and necessity in the OECD region compared with the LAC region, with a higher share reporting pure necessity reasons in the LAC region—again, with the caveats on what these terms mean as previously discussed. The OECD share (25.9 percent) is very close to the US response of own-account entrepreneurs of 22 percent.<sup>8</sup> In any case, at a minimum, 74 percent of OECD and 64 percent of LAC microentrepreneurs are motivated by opportunity—a difference in magnitude but not of kind, and extremely close to the findings from the labor force surveys discussed previously. From a conceptual and policy point of view, the motivations of LAC and OECD microfirms are very similar, and equating this group with necessity motivations is the case for only one-third of them.

TABLE 1.2 Comparison of Respondents’ Motivations for Starting a Microenterprise

| Motive to start enterprise                             | Microentrepreneurs |      | Unskilled microentrepreneurs |      |
|--------------------------------------------------------|--------------------|------|------------------------------|------|
|                                                        | LAC                | OECD | LAC                          | OECD |
| Opportunity: Increase in income                        | 18.4               | 23.5 | 16.4                         | 23.0 |
| Opportunity: Independence                              | 30.8               | 27.1 | 30.6                         | 25.9 |
| Mixed motive: Combination of opportunity and necessity | 14.7               | 23.6 | 14.3                         | 23.0 |
| Nonopportunity: Necessity or maintain income           | 36.2               | 25.8 | 38.6                         | 28.1 |
| Total                                                  | 100                | 100  | 100                          | 100  |

Source: Global Entrepreneurship Monitor (GEM) data, 2022 (<https://www.gemconsortium.org/data>).  
Note: The column labeled “Microentrepreneurs” considers only entrepreneurs that hire up to five workers, while the column labeled “Unskilled microentrepreneurs” considers only entrepreneurs that hire up to five workers and have a high school education or less.  
LAC = Latin America and the Caribbean; OECD = Organisation for Economic Co-operation and Development.

FIGURE 1.5 Microentrepreneurs Who Choose Self-Employment for Income and Independence



Source: Global Entrepreneurship Monitor (GEM) data, 2022 (<https://www.gemconsortium.org/data>).  
Note: The figure considers only entrepreneurs who hire up to five workers. LAC = Latin America and the Caribbean; OECD = Organisation for Economic Co-operation and Development.

Figure 1.5 breaks down results by country and figure 1.6 examines them by world region. Looking at microentrepreneurs entering for necessity, it is clear that LAC countries and the region as a whole are not outliers among developing countries and regions.

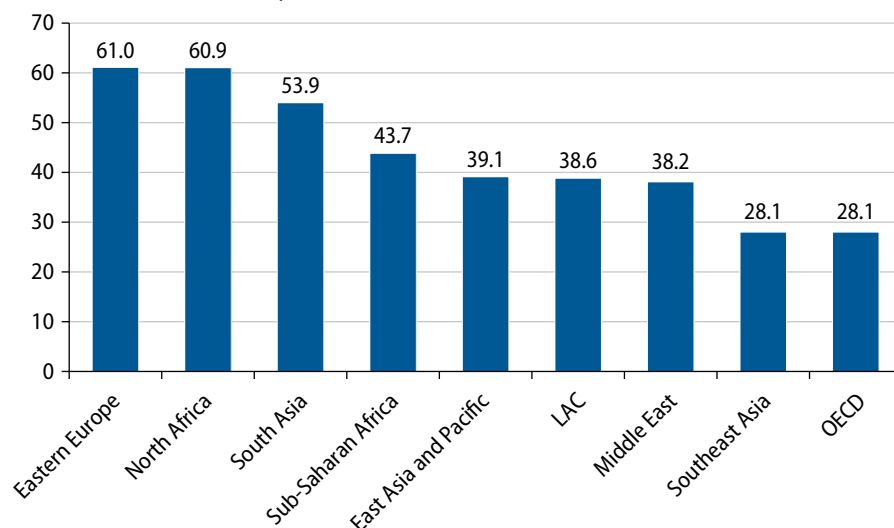
As figure 1.6 illustrates, Southeast Asia has the same level of necessity as the OECD region, consistent with the ISSP survey data reporting that 80 percent of salaried workers in the Philippines prefer to be self-employed. Levels in the Middle East and North Africa region and in the East Asia and Pacific region are the same as in the LAC region.

The level in Sub-Saharan Africa is higher, but surprisingly low given that only 10 percent of the population has access to formal jobs, which would lead one to expect that a larger share of workers might resort to self-employment out of necessity. However, the findings are consistent with other evidence from the continent (Falco et al. 2015, for Ghana). More than 75 percent of the nonagricultural self-employed in West African countries are opportunity entrepreneurs who report that they are in the sector for more money, more flexibility, or to continue family tradition, and less than 25 percent report they cannot find a job they would prefer (Afristat 2020; Cerkez et al. 2020).

Eastern Europe, primarily Russia in the sample, comes from an industrial tradition where individual entrepreneurship was repressed; therefore, self-employment may, in fact, be seen as undesirable. There is no clear explanation for the high levels of necessity entrepreneurs in North Africa (the Arab Republic of Egypt and Morocco) and South Asia (India).

**FIGURE 1.6 Unskilled Entrepreneurs Who Choose Self-Employment by Necessity**

Share of unskilled microentrepreneurs (%)



Source: Global Entrepreneurship Monitor (GEM) data, 2022 (<https://www.gemconsortium.org/data>).

Note: Unskilled microentrepreneurs are entrepreneurs that hire up to 5 workers and have high school education or less. The figure shows population-weighted regional averages, computed by aggregating economy-level observations using each economy's adult population (ages 15–64) as weights. The sample includes 48 economies grouped as follows: East Asia (China); Eastern Europe (Bulgaria, Croatia, Russian Federation, Slovak Republic); LAC (Argentina, Brazil, Chile, Colombia, Guatemala, Panama, Peru, Puerto Rico, Uruguay); Middle East (Cyprus, Islamic Republic of Iran, Lebanon, Qatar, Saudi Arabia, United Arab Emirates); North Africa (Arab Republic of Egypt, Morocco); OECD, excluding LAC countries (Austria, Canada, France, Germany, Greece, Ireland, Israel, Italy, Japan, Republic of Korea, Luxembourg, the Netherlands, Poland, Slovenia, Spain, Sweden, Switzerland, Türkiye, United Kingdom, United States); South Asia (India); Southeast Asia (Indonesia, Thailand); and Sub-Saharan Africa (Angola, Madagascar, Sudan). LAC = Latin America and the Caribbean; OECD = Organisation for Economic Co-operation and Development.

In sum, the four sources of evidence tell the same story: Self-employment is a desirable sector and about 60–70 percent of those found there would not prefer formal salaried jobs.

### **Why Does Self-Employment Decline with Income, and What Causes Divergence from This Trend?**

The LAC region follows the global pattern of the share of self-employed workers decreasing with development (Blau 1987; Fajnzylber et al. 2006; Feng and Ren 2023; Gollin 2008; Herreño and Ocampo 2023; Loayza and Rigolini 2011; Maloney 2004; Ohnsorge and Yu 2022). However, figure 1.1 also suggests very large deviations from this trend, which need to be explained. While Argentina, Brazil, Guatemala, and Mexico are close to or slightly below the predicted trend, Bolivia, Colombia, the Dominican Republic, Panama, and Peru are between 10 and 20 percentage points higher. South Africa, on the other hand, appears to have “deficient” self-employment at around 10 percent, far below the level predicted, despite having extremely high levels of unemployment (34 percent) (Asmal et al. 2024; Cunningham et al. 2022). Both trend and deviations could arise from multiple sources.

### **Relative Productivity Across Sectors**

The most likely driver for the decline in self-employment with development is that the opportunity cost of being your own boss or of greater flexibility rises as productivity in the salaried sector rises. Gollin (2008), working in the context of Lucas (1978), shows that increases in aggregate productivity can explain much of the cross-country variation in firm size and self-employment rates. Gollin’s model can replicate the downward slope over time in Japan, which, as figure 1.2 shows, tracks the LAC region’s cross-sectional relationship with income well. Evidence presented in chapter 4 (Beylis, Maloney et al. 2026) models the same trend, showing that a progressive shift right in the distribution of skills leads to an increase in the size of formal firms and a shift out of self-employment.

### **Relative Value of Amenities for Salaried Employment Versus Self-Employment**

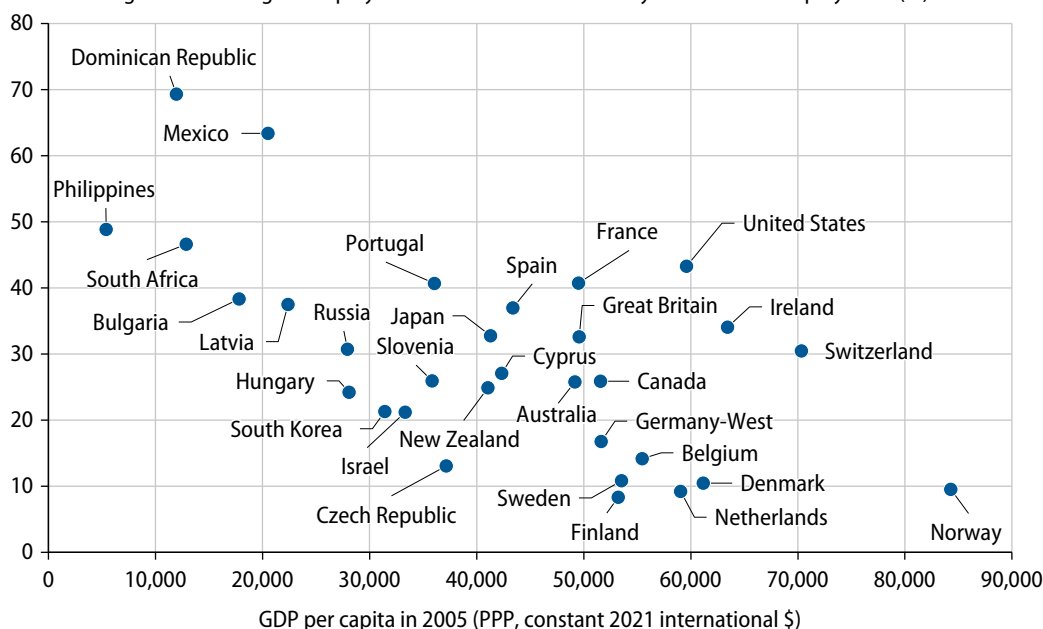
Any factor that reduces the attractiveness of salaried employment or increases the attractiveness of self-employment will lead to an expansion of the latter. As countries and economies develop, intrinsic differences among different types of jobs may also emerge,<sup>2</sup> contributing to the

downward trend in self-employment with development. For example, the ISSP data capture a measure of flexibility: the share of people who believe that being an employee interferes more with family life than self-employment, which ranges from 10 percent in the advanced economies with low levels of self-employment to between 60 percent and 70 percent in the Dominican Republic, Mexico, and the Philippines. These levels map, again, to the share of the workforce in self-employment (figure 1.1). Formal jobs in poor countries—such as maquila assemblers, dishwashers, drivers, and security guards—may have very tight strictures on working hours, time off, and other features of their jobs that are loosened along with rising productivity and the changing level of work that accompany development. Overall, the amenities of salaried work rise with development (figure 1.7).

The valuation of formal benefits may also change, although this may be more useful in explaining divergence from trend. While it is tempting to assume workers fully value the contributions they implicitly or explicitly make to social protection systems, this is not obviously so. The volume

**FIGURE 1.7 Amenities of Salaried Work Rise with Development**

Share who agree with: Being an employee interferes more with family life than self-employment (%)



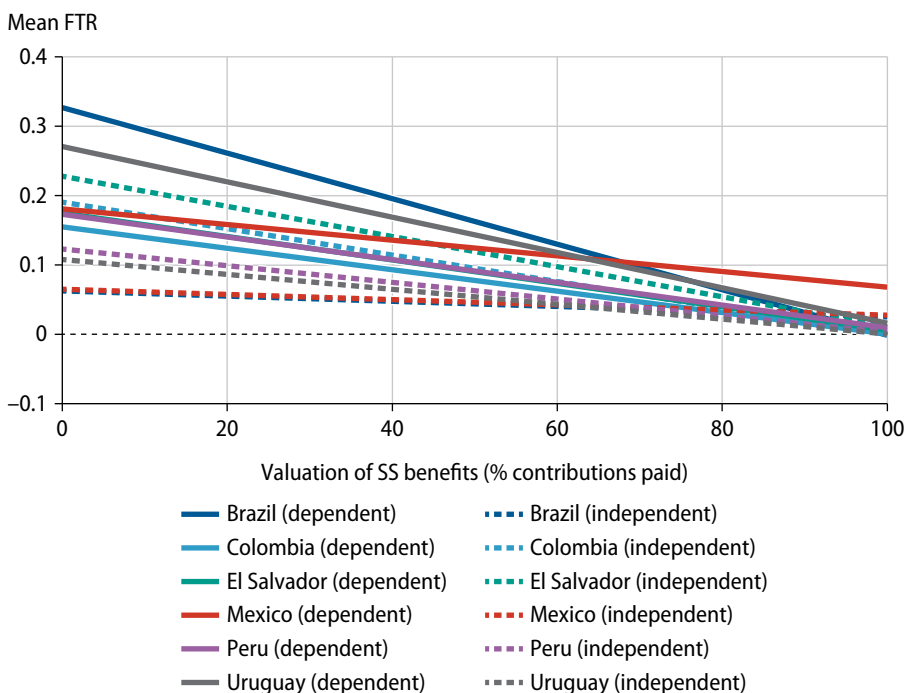
Source: ISSP data set ([https://search.gesis.org/research\\_data/ZA6770](https://search.gesis.org/research_data/ZA6770)).

Note: Historical names are used for countries. "South Korea" refers to the Republic of Korea, "Germany-West" refers to the Federal Republic of Germany, and "Russia" refers to the Russian Federation. GDP = gross domestic product; ISSP = International Social Survey Programme; PPP = purchasing power parity.

*Informality: Exit and Exclusion* (Perry et al. 2007) argues that many workers may opt out after doing the cost-benefit analysis.<sup>10</sup> For instance, if a worker is already covered by health insurance, either because of coverage through a family member in the formal sector or coverage through universal health programs; or if provision of formal services is inefficient or low quality; or if rapid worker turnover implies never contributing enough quotas to reach the minimum contributions to receive pension, then the effective value of benefits falls below contributions and this creates an incentive to become informal (Maloney 1999). Levy (2008) has argued that universal benefits, in fact, reduce labor supply to the formal sector and hence put an additional tax on the sector.

In a recent innovative book, *(In)Formalizing Jobs in Latin America and the Caribbean: Taxes, Benefits, and Labor Market Incentives*, Fietz et al. (2025) generate a formalization tax rate (FTR). The FTR is a composite measure that consolidates personal income taxes, social assistance transfers, mandated benefits, and social insurance contributions into a single indicator, enabling explicit quantification of the net financial cost that compliance imposes on workers and firms.

The book argues that statutory social insurance contributions are the single largest component driving disincentives to formalization, playing a far greater role than personal income taxes or assistance transfers in influencing the worker's decision. Compliance costs for dependent workers (averaging between 20 percent and 40 percent of household income) are substantially higher than those for the self-employed (typically, 5 percent to 25 percent of income). If these benefits are not fully valued, this differential creates strong financial incentives for individuals to become informal, or for firms to circumvent traditional salaried work by engaging independent contractors (who are self-employed)—directly addressing one mechanism driving informality in the self-employed sector identified earlier in this volume. The extent to which these benefits are valued determines the incentives for formalization (figure 1.8). Clearly, if benefits are fully valued, the tax is close to zero—workers are just paid in health insurance and pensions rather than wages. However, if benefits are valued very little, then they are an implicit tax to formality: the estimated magnitudes show Colombia at the low end with 15 percent of household income, rising to 30 percent in Brazil; in either case, a major disincentive to formalization and favoring independent work (self-employment), where FTRs are much lower.

**FIGURE 1.8** Impact of Benefit Valuation on Formalization Incentives

Source: Fietz et al. 2025.

Note: The figure is based on microsimulations using data from Brazil's 2019 National Household Sample Survey, Colombia's 2019 Great Integrated Household Survey, El Salvador's 2019 Multipurpose Household Survey, Mexico's 2018 National Survey of Household Income and Expenditure, Peru's 2019 National Household Survey, and Uruguay's 2021 Continuous Household Survey. FTR = formalization tax rate; SS = social security.

## Labor Market Rigidities

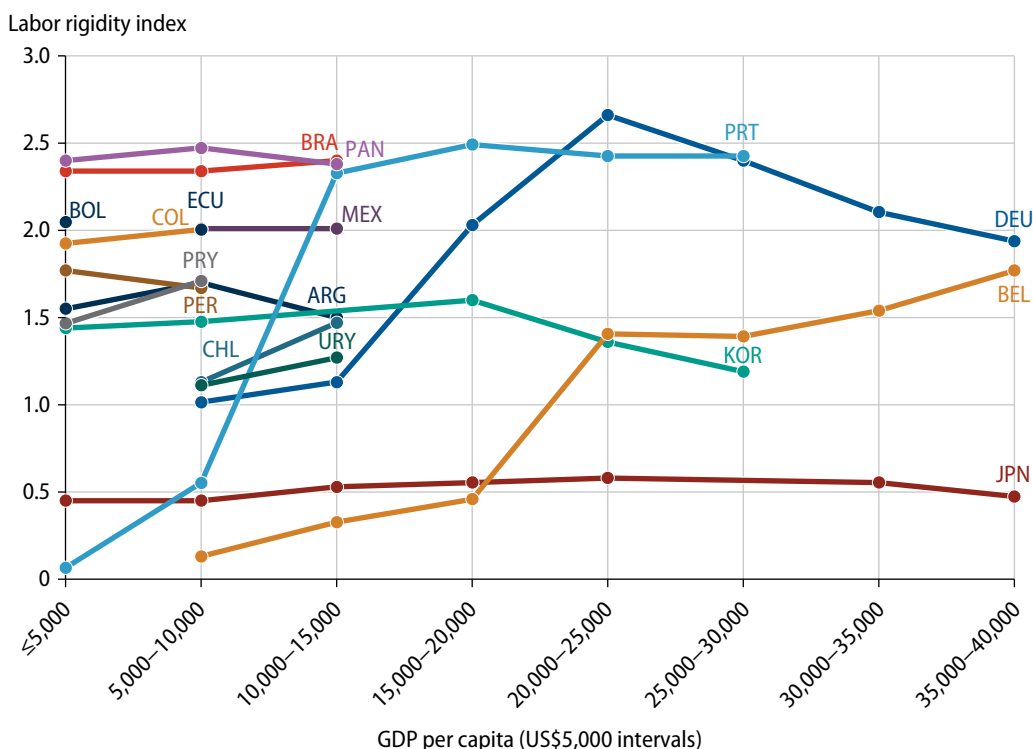
Labor market distortions and rigidities can drive higher self-employment and informality by reducing the labor intensity of production, creating segmentation between different types of jobs (such as jobs that are informal or formal, more or less stable, or offer different kinds of amenities), or both. A high minimum wage or other nominal rigidity will lead firms to hire fewer workers and to ration many qualified workers into informality of various types. Rising marginal tax rates in the US contributed to rising self-employment rates in the 1970s (Blau 1987). Higher labor flexibility in the OECD region has decreased the probability of entry into self-employment (Antunes and Centeno 2005). Labor regulation explains part of the cross-country variance in levels of informality more generally (Loayza 2018; Loayza et al. 2005; Loayza and Rigolini 2011; Maloney 2001).

However, these rigidities are unlikely to explain the declining trend of self-employment with development. Crude back-of-the-envelope calculations using a standard labor demand elasticity of 0.5 clearly suggest that

segmenting distortions such as minimum wages are incapable of explaining the bulk of informality. In Peru, for instance, where 25 percent of the workforce is formal, cutting total worker remuneration by an implausibly high 90 percent would expand salaried employment by only 11 percentage points, leaving informality at 64 percent. The model presented in chapter 4 generates similar patterns.

Further, labor market rigidities are not obviously correlated with development. Country case studies support viewing them as a second-order effect. First, the index of labor market rigidity developed by Campos and Nugent (2018)—which includes costs of increasing hours, firing, dismissal procedures, and alternative contracts—suggests that there is no obvious decline in these labor market rigidities with development. LAC countries are more rigid today than Belgium, Germany, Japan, or Korea were at their corresponding level of development, but rigidities in the latter have stayed constant or risen across their growth path, while self-employment has fallen (figure 1.9).

**FIGURE 1.9 Labor Legislation Often Becomes More Rigid with Development**



Source: Labor Market Rigidity Index (LAMRIG) and GDP per capita PPP by World Bank.

Note: The Labor Market Rigidity Index (Campos and Nugent 2018) is a de jure measure of the strictness of employment regulation. It ranges from 0 (most flexible) to 100 (most rigid) and averages three components: difficulty of hiring, rigidity of working hours, and difficulty of firing, based on Botero et al. (2004). Data labels use International Organization for Standardization country codes, <https://www.iso.org/obp/ui/#search>. GDP = gross domestic product; PPP = purchasing power parity.

Looking at nominal rigidities that would ration workers out of formal employment, in Mexico, minimum wages were extremely low in the mid-2000s (Perry et al. 2007), yet Mexico has a very high share of self-employment.<sup>11</sup> More generally, as panel a of figure 1.10 shows, countries with more binding minimum wages—meaning countries with a higher value of the minimum wage over what is the median wage of a full-time worker—do not have significantly higher levels of self-employment. In fact, if the analysis controls for other factors associated with income (conditional on gross domestic product [GDP] per capita), as shown in panel b of figure 1.10, a higher minimum wage is associated with lower self-employment. Bosch et al. (2025) argue that increasing the minimum wage in the formal sector could be seen by the self-employed as equivalent to an increase in productivity. It increases the value of being a formal salaried worker, drawing individuals out of self-employment while also increasing the value of waiting in unemployment for a formal job (Bosch et al. 2025).

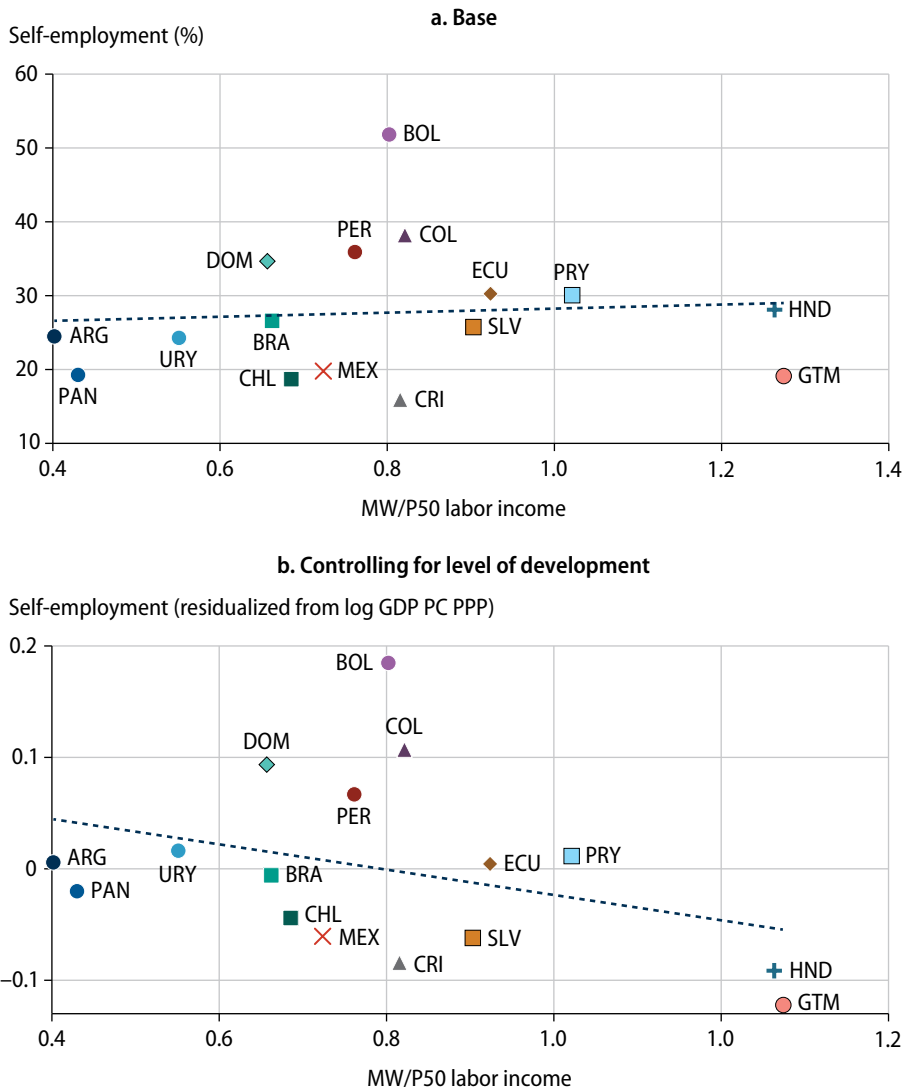
### **Mismatch of Skills**

Thirty percent of LAC employers report that they cannot expand because of the lack of qualified labor, compared with about 10 percent of employers in Asia. This gap suggests that formal salaried jobs *are* available but the region's poor education systems do not prepare workers to fill these jobs and dictates that the best available job is informal self-employment. In such cases, informality is a marker for growth-inhibiting shortages of human capital. On the other hand, development is associated with more specific matches of job and position. This association could increase the opportunity cost of self-employment but it may also exacerbate the problem of mismatched skills.

### **Differing Economic Structures Mapping Growth to Employment**

Countries differ by economic structure; therefore, they differ by the labor intensity of production. For instance, the April 2025 Latin America and the Caribbean Economic Review (LACER) shows large, although unexplained, differences in the elasticity of labor demand/wages with productivity growth across LAC countries. In general, mining sectors employ few workers given their contribution to gross national product, so mining-intensive economies might be expected to have a larger self-employed sector for a given level of GDP. After most Latin American countries sharply reduced tariffs and other trade restrictions in the late 1980s or early 1990s (Bellon 2018; Dix-Carneiro and Kovak 2023; Terra 2003), laid-off workers sought recourse in the nontradables sector, which was mostly informal (Dix-Carneiro and Kovak 2017; Jedwab et al. 2022)

**FIGURE 1.10** Share of the Workforce in Self-Employment and the Level of the Minimum Wage



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys (<https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>) and World Bank compilations of minimum wage data.

Note: Each point represents a country using the last available year in SEDLAC (mostly 2023; Chile, 2022; Mexico, 2024). The vertical axis represents the self-employment rate across countries. The horizontal axis shows the ratio of the minimum wage (MW) to the median (P50) monthly labor income for each country. The dashed line indicates the fitted trend across countries. International Organization of Standardization (ISO) country codes available at <https://www.iso.org/obp/ui/#search>. GDP = gross domestic product; PC = per capita; PPP = purchasing power parity; SEDLAC = Socio-Economic Database for Latin America and the Caribbean.

**Geographical Segregation**

Commuting costs constitute a significant portion of the income of relatively unskilled residents, often leading those individuals to work informally near

their homes and to purchase goods and services from local informal firms. If a substantial fraction of the labor force in a city has limited access to formal jobs compared with informal ones, residential labor market segregation may result in spatial misallocation, as noted by Hsieh and Klenow (2009). Ianchovichina and Zárate (2021) provide evidence of residential labor market segregation and a dual urban economy in Mexico City.

### **Differing Cultures of Entrepreneurship**

At the micro level, one of the largest determinants of entrepreneurial behavior is the example of an enterprising parent; but in the aggregate, culture may play an important role. Notably, opening a business was not permitted under apartheid in South Africa (Asmal et al. 2024); it was also not permitted in the former Czech, Hungarian, and Polish socialist republics (Maloney 2004), or, as noted, in Russia; hence, the entrepreneurial tradition was little developed.

### **Anti-Competitive Behaviors Raising Entry Costs for New Enterprises**

For instance, in South Africa, established formal oligopolies impede entry of new microfirms and drive their share of total employment far below the level expected for the country's income level (Asmal et al. 2024).

Many of these factors may affect both the comparative advantage of workers and their ability to find desirable job matches. While productivity—and to some extent, amenities—in the formal sector may drive the downward trend in self-employment, other factors can lead to deviations from it.

### **How Much Is Being Your Own Boss Worth? Measuring Amenity Value**

As Rosen (1974, 1986) argued, the labor market clears along the dimensions of both worker productivity and amenity values of different job types. This implies that wages will be separated by differentials compensating for unobserved amenity values.<sup>12</sup> The literature suggests that the relevant magnitudes are very large: being your own boss is very valuable everywhere.

Further, as is now widely acknowledged in the most recent literature, these valuations of amenities and benefits play a major role in job selection (Eriksson and Kristensen 2017; Maestas et al. 2023; Mas and Pallais 2017), occupational choice (Garin et al. 2024), and even human capital investments (Wiswall and Zafar 2018).

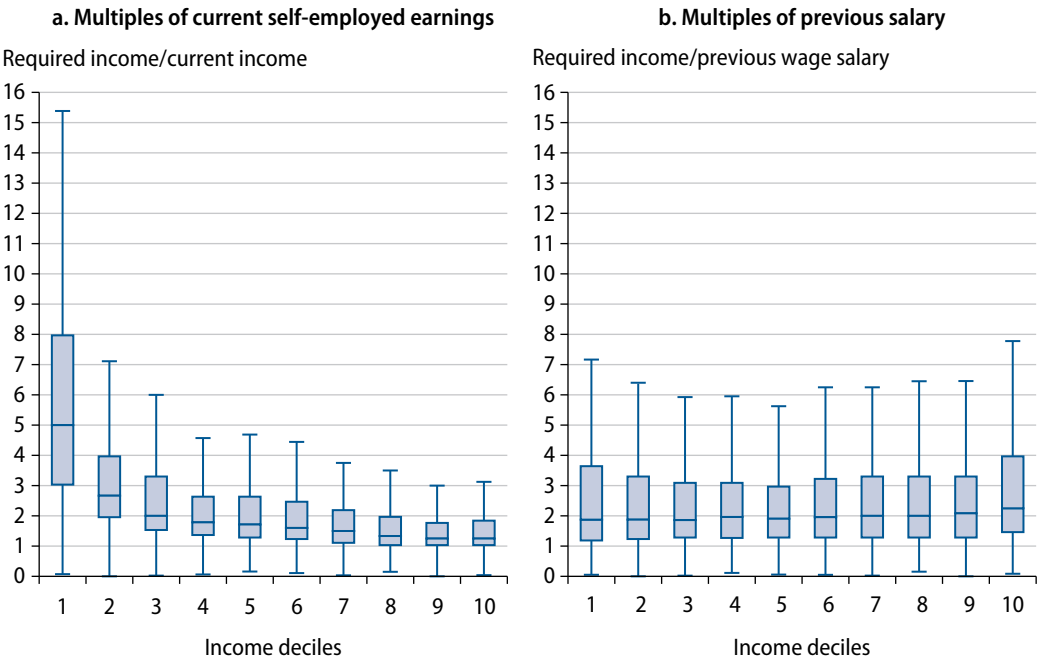
Yet while the value that workers place on different job amenities has been recognized in the theoretical literature since the mid-1970s (Rosen 1974, 1986), empirical evidence on compensating differentials in wages—where workers trade off higher wages for job amenities—has remained elusive.

For the United States, Hamilton (2000) identifies a 35 percent discount in earnings for self-employment after 10 years in business relative to being a salaried worker, which he interprets as a lower bound on the value of nonpecuniary benefits of self-employment, such as being your own boss. Imputing a 20 percent value of health benefits foregone raises the value to 55 percent of earnings.

The limited evidence previously available suggests that the valuation in the LAC region is comparable or larger. In Mexico, during the 2012 National Survey of Micro-Enterprises (ENAMIN), when self-employed individuals were asked “how much income they would need to switch to a salaried job,” they reported that they would need two times their current earnings on average. These results are not driven by wealthy microentrepreneurs; instead, they are much higher among the poorest, perhaps reflecting the lower amenity value of formal jobs that workers with poor human capital can attain (figure 1.11, panel a). Because it might be argued that self-employed workers lack information about formal benefits or that the sample heavily selects those individuals averse to salaried work, panel b in figure 1.11 limits the sample to those who previously worked as salaried workers and relates the question to their previous salaried wage; the results again suggest twice their earnings on average, although more uniformly across income deciles. As an alternative approach, tracking transitioning workers in a short panel, those who report moving from formal salaried to informal self-employed jobs for more independence in Mexico earn 20 percent more—which, again, adding the financial costs (contributions of firms and employees) of benefits forgone, yields an implicit value of independence of perhaps 40–50 percent (Maloney 1999). The range of estimates from these different approaches is large, but none are lower than in the United States. The methodology used in these estimates has been criticized because it often leads to hypothetical bias—systematic overstatement of willingness to pay relative to real decisions—as workers do not see any real trade-offs (box 1.2). Yet, their responses (double their income to switch to salaried work) should be highly indicative of how much workers value being in the sector.

The current state-of-the-art methodology is based on discrete choice experiments where respondents are presented with hypothetical jobs that

**FIGURE 1.11** Stated Compensation Required for Informal Self-Employed to Become Formal Salaried in Mexico



Source: Beylis et al., forthcoming. Based on 2012 National Survey of Micro-Enterprises (ENAMIN) (<https://en.www.inegi.org.mx/programas/enamin/2012/>).

randomly vary certain job attributes, including different amenities as well as wages, allowing researchers to calculate the willingness to pay (WTP) for specific amenities. For this volume, Beylis, Garin et al. (2026) apply this methodology to estimate the WTP for different job amenities and benefits in seven Latin American countries (Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru), using an online panel of workers. This approach provides the most comprehensive and consistent estimates on the value that workers in the LAC region place on different job amenities and benefits (see box 1.3 for the specifics of the methodology implemented).

**BOX 1.2 Measuring the Value of Job Amenities**

The traditional literature on compensating wage differentials (Rosen 1974, 1986) has struggled to deliver stable and credible estimates of workers' valuation of job amenities. Estimates based on cross-sectional or panel regressions of wages on workplace characteristics are highly sensitive to the inclusion of worker or firm controls and are often

(Continued on next page)

**BOX 1.2 Measuring the Value of Job Amenities (*continued*)**

incorrectly signed, with more pleasant amenities correlating positively rather than negatively with earnings (Bonhomme and Jolivet 2009; Hwang et al. 1998; Lang and Majumdar 2004). These failures reflect fundamental identification problems: job amenities are not randomly assigned and are jointly determined with wages through supply and demand. As a result, observed correlations between wages and amenities conflate worker preferences, firm costs, unobserved worker skills, the quality of job matching, and labor market search frictions. Even approaches that condition on individual fixed effects or explicitly model selection and search rely on strong assumptions—such as time-invariant skills or correctly specified search processes—that are difficult to justify empirically. Consequently, standard equalizing differences models recover, at best, valuations for marginal workers and provide limited insight into heterogeneity in preferences across the workforce.

In response to these challenges, a growing literature has turned to stated-preference methods (Eriksson and Kristensen 2014; Maestas et al. 2023; Wiswall and Zafar 2018), also known as discrete choice experiments. These are typically implemented through survey-based choice experiments with hypothetical jobs. These approaches offer clear advantages: they allow researchers to vary multiple job attributes exogenously, avoid sorting and omitted-variable bias inherent in realized job choices, and quantify willingness to pay for a broad set of characteristics. Moreover, survey-based methods can collect additional background information that is not only representative of the relevant population but also provides important information about the drivers of heterogeneity in the valuations. However, their central limitation is external validity. Because respondents face no real consequences, hypothetical choices may not reflect behavior in actual labor markets. Although such surveys have been informative across many economic domains,<sup>a</sup> the extent to which they approximate market behavior in real job choice remains relatively uncertain.

Field-experiment approaches using actual job applicants (He et al. 2021; Mas and Pallais 2017) address this trade-off directly. Like stated-preference designs, the field-experiment approach eliminates

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**BOX 1.2 Measuring the Value of Job Amenities (*continued*)**

bias from unobserved heterogeneity and endogenous sorting by presenting exogenously varied job attributes. Unlike survey settings, however, applicants are actively searching for jobs and have strong incentives to reveal preferences consistent with their true objectives. Because choices affect actual employment outcomes and respondents are unaware they are part of a study, the resulting willingness-to-pay estimates are incentive-compatible and less vulnerable to hypothetical bias. However, the setting is necessarily narrower—focused on a specific pool of applicants and occupation—so the results may not generalize to different types of jobs and the workers searching for them.

a. The stated-preference approach has provided valuable evidence for many economic topics, including environmental policy (Carlsson and Martinsson 2001; Carson 2012), consumer preferences (Revelt and Train 1998), labor supply (Kimball and Shapiro 2008), retirement decisions (van Soest and Vonkova 2014), and long-term care (Ameriks et al. 2015).

The WTP estimates on job amenities, such as scheduling flexibility and independence in accomplishing tasks (or job autonomy),<sup>13</sup> commonly associated with self-employment are reported here and summarized in figures 1.12 and 1.13, along with estimates on the value that workers place on formality (as an entire package of costs and benefits) reported in chapter 3.

As this volume has argued, these are key insights that can go a long way in explaining the occupational choices of workers in the LAC region and their decision to participate in informal or formal jobs.

**BOX 1.3 Measuring What Workers Actually Value: A Large-Scale Choice Experiment on Informality in Latin America**

To understand how workers make their employment decisions and the relative importance of different job attributes, Beylis, Garin et al. (2026) go beyond asking workers directly what they prefer, an approach that tends to produce unreliable responses because respondents face no real trade-off. Instead, nearly 17,500 employed adults across seven

(Continued on next page)

### **BOX 1.3 Measuring What Workers Actually Value: A Large-Scale Choice Experiment on Informality in Latin America (continued)**

Latin American countries were presented with pairs of hypothetical job offers that varied simultaneously in contract type (formal, informal, or self-employed), schedule flexibility, autonomy, and pay. Respondents chose their preferred option across 10 rounds, forcing genuine implicit trade-offs between attributes that are difficult to disentangle in real world labor market data.

To recover the monetary value that workers attach to each attribute, Beylis, Garin et al. (2026) estimate how much of their gross wage workers would forgo, or demand as compensation, for any given job feature, using a standard random utility model applied to the pooled choice data across all 10 rounds in each phase. Estimates are produced both by country and for the region, and are further disaggregated by employment status, gender, age, and access to benefits such as health insurance.

Consistent with the findings in the literature, these survey results find *sizable valuations for both flexibility and autonomy*. Taking the combined sample from all seven LAC countries, the authors find that workers, on average, value flexibility in scheduling at 9 percent of current earnings. Underlying that average, however, there is substantial variation, with salaried workers valuing flexibility at about 6.5 percent of wages and currently self-employed individuals valuing it at about 15 percent. These results are in line with the previous literature covering advanced economies<sup>14</sup> as well as in other developing countries. In a sample of Colombian women applying to jobs, Bustelo et al. (2019) find that those women are willing to forgo between 10 percent and 20 percent of earnings in the context of full-time employment.<sup>15</sup>

Workers in the LAC region place even higher value on independence in their jobs, with substantially greater willingness to pay for autonomy. On average, *workers are willing to pay up to 14 percent of their income for the ability to independently perform their tasks* (Beylis, Garin et al. 2026). In contrast, in the United States, workers' willingness to pay was lower; Maestas et al. (2023) find that workers are willing to pay only 3.8 percent of wages for a job with independence. However, workers are also willing to pay 4.4 percent

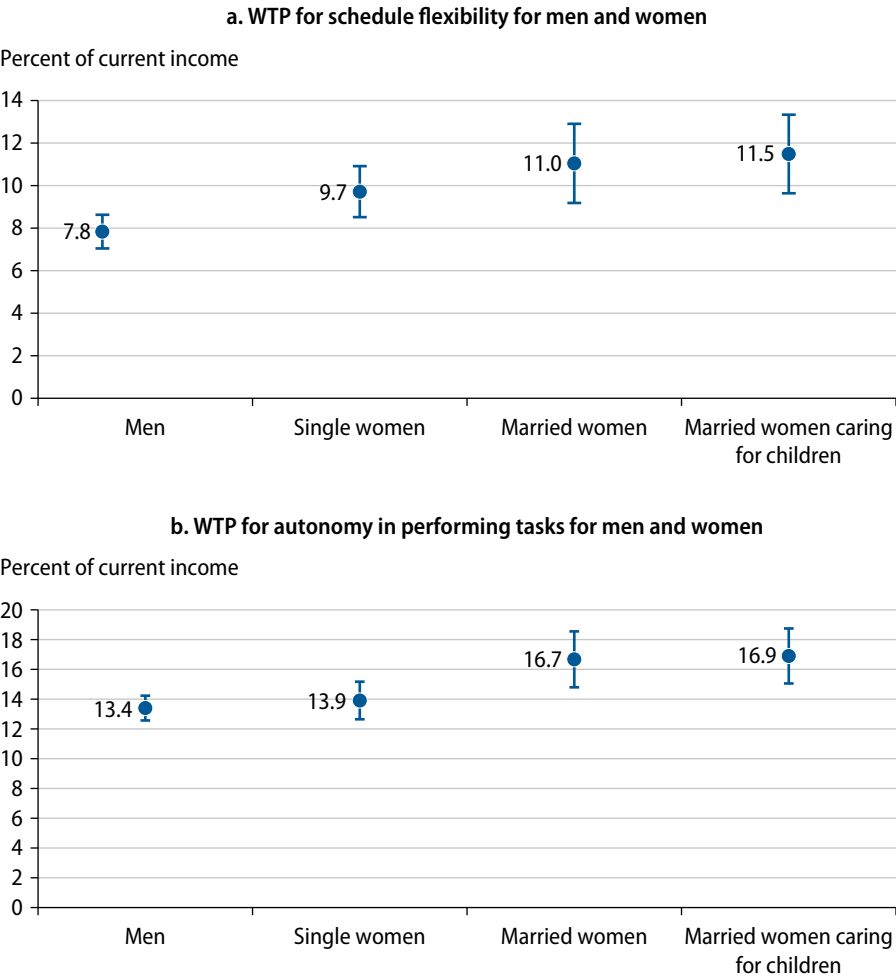
of their income to trade a fast-paced job environment for a more relaxed one and they are willing to pay 8.4 percent of wages to work alone—all attributes that can be associated with self-employment (Maestas et al. 2023).

Women seem to value flexibility more than men, and married women care about independence in performing tasks significantly more than men. While it appears that, on average, women care more about flexibility in their schedule, married women in particular, regardless of caring for children or not, have higher valuations—although the differences are not statistically significant (figure 1.12, panel a). The pattern for independence in performing tasks is somewhat different. Single women show very similar valuation for independence as males, but married women—again, having a child does not affect the estimated valuation—display a significantly higher WTP for this attribute (figure 1.12, panel b). Men do not display any significant differences in the WTP for these attributes when disaggregating by marital status or having children.

*Further, workers appear to sort into jobs that fit with their preferences. That is, workers who value these attributes the most are found in jobs that offer these amenities.* In the survey sample, workers who are currently self-employed value schedule flexibility almost three times as much as salaried workers (15 percent versus 6.5 percent) and they value independence more than twice as much as salaried workers (21.5 percent versus 10.7 percent). It is important to note that while these amenities are often associated with self-employment, there may be some other attributes (such as being your own boss, avoiding harassment, family tradition, cultural status, and so on) not included in the survey that can affect how much people value self-employment itself. In this sense, and because of the different methodologies used, these estimates are not directly comparable to those obtained from microentrepreneurship surveys cited earlier.

Self-employment comes in many varieties and can be very different for workers in terms of how much flexibility and independence it offers. Thus, workers in the survey were explicitly asked about the level of flexibility and independence (low, medium, or high) in their current jobs. The results confirm the same patterns (figure 1.13). Workers appear to be sorting into jobs that offer the amenities they value the most. Workers with the highest valuation for flexibility are in jobs with high flexibility. Similarly, workers with the highest valuation for independence are in jobs with high independence. These findings are consistent with those in previous studies.<sup>16</sup>

FIGURE 1.12 Women Value Flexibility and Autonomy More than Men

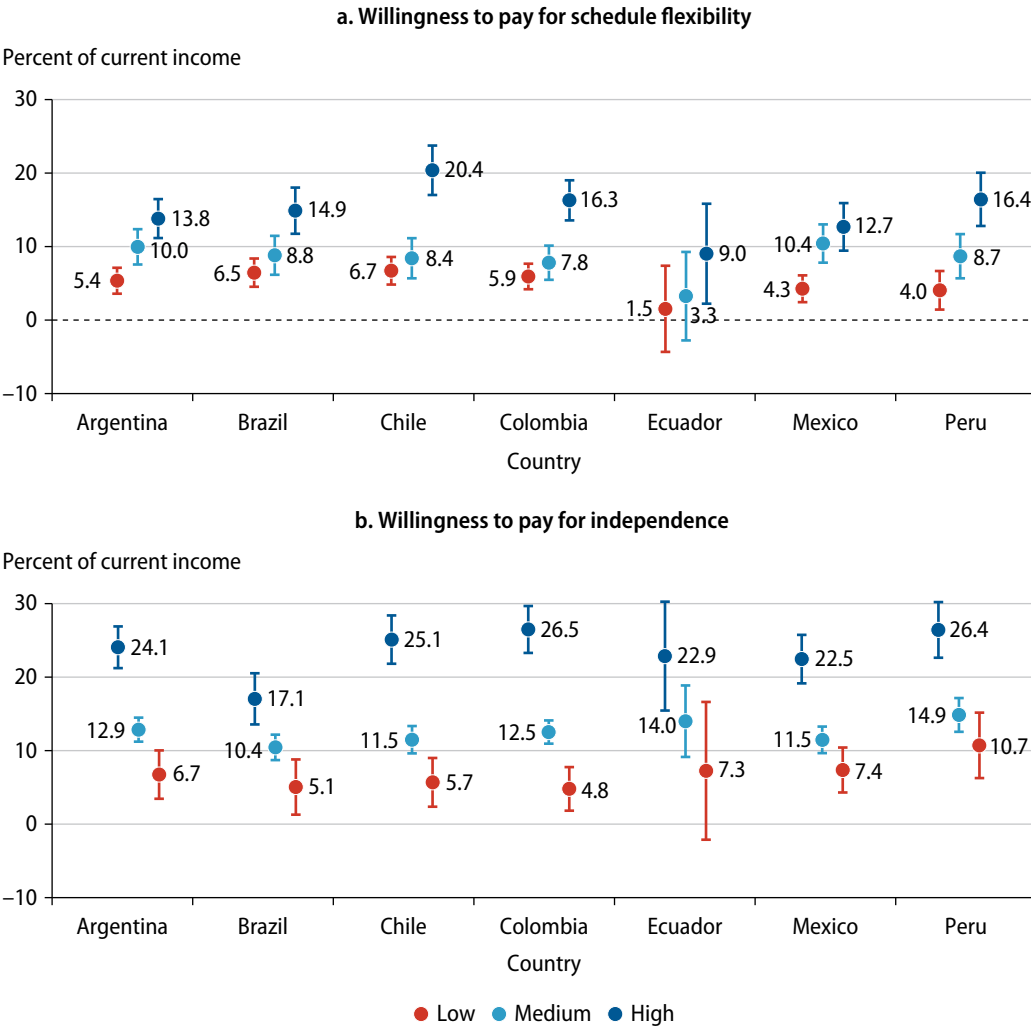


Source: Beylis, Garin et al. 2026.

Note: Respondents were asked about flexibility and independence in their current job, with the following response options. Flexibility: Low = fixed schedule with standard hours; Medium = some flexibility in scheduling but a fixed number of hours; High = full discretion over work schedule. Independence: Low = told what to do, how to do it, and when to do it; Medium = some autonomy but still follows instructions or imposed routines; High = full discretion over what to do, how to do it, and when to do it. WTP = willingness to pay.

The very large valuations for some of the amenities associated with self-employment help explain why the self-employment sector is so large in many countries. The model in chapter 4 builds on this finding, introducing heterogeneity in the preferences for self-employment as workers choose their occupation.

**FIGURE 1.13 Workers Choose Jobs That Offer the Amenities They Value Most**



Source: Beylis, Garin et al. 2026

Note: Respondents were asked about flexibility and independence in their current job, with the following response options: Flexibility: Low = Fixed schedule with standard hours; Medium = I have flexibility regarding my schedule, but I work a fixed number of hours; High = You can choose your schedule; Independence: Low = I am told what to do, how to do it, and when to do it; Medium = I have some autonomy, but I also follow instructions or imposed routines; High = I decide what to do, how to do it, and when to do it.

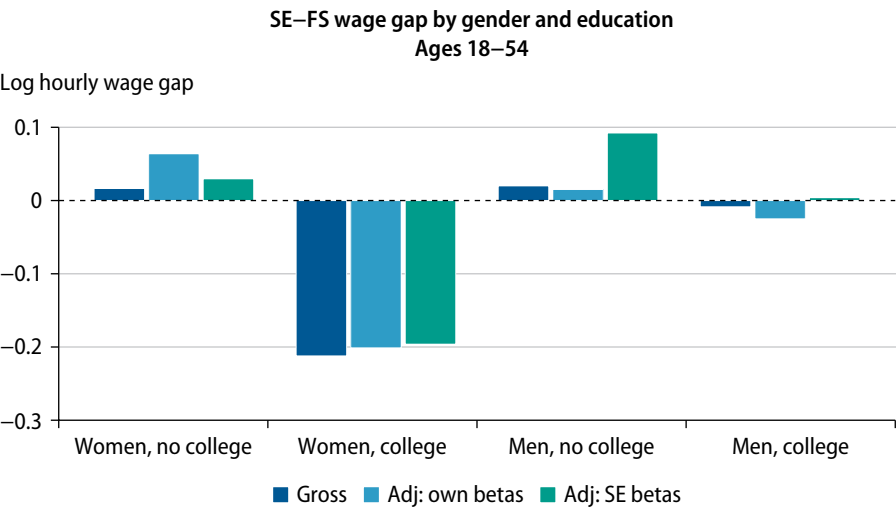
## Measuring Segmentation and Necessity Entrepreneurship Through Amenity-Adjusted Wage Comparisons

Further, the magnitudes estimated here are large enough to close the median formal salaried/self-employment earnings gaps often documented. In an unsegmented market with free movement between sectors, one should expect self-employed earnings ( $E_{se}$ ) plus the amenity value ( $A_{se}$ ) to equal formal salaried

earnings ( $E_{fs}$ ) plus the value of benefits and amenities ( $A_{fs}$ ) minus the deductions from earnings to finance them ( $T_{fs}$ ), as shown in the following equation:

$$E_{se} + A_{se} = E_{fs} + A_{fs} - T_{fs}$$

**FIGURE 1.14** The Amenities Premium in Self-Employment Exceeds the Wage Premium in Formal Employment



Source: Beylis, Garin et al. 2026.  
Note: “Gross” refers to the gross log wage gap. “Adj: own betas” adjusts wages using coefficients estimated separately for each worker type (i.e., self-employed workers use self-employed WTP coefficients, while formal salaried workers use formal salaried WTP coefficients). “Adj: SE betas” adjusts wages for both groups using coefficients estimated for self-employed workers only. Adj = adjusted; FS = formal sector; SE = self-employed; WTP = willingness to pay.

Figure 1.14 compares log hourly earnings between self-employment and formal salaried employment, then adjusting to incorporate the value of job attributes using two different measures.<sup>17</sup> For workers with no college, the utility premium is always higher than the wage premium—in the case of males raising it from a small wage premium to 9 percent. For college educated men, the self-employed suffer a slight wage discount with one measure and that discount is slightly exacerbated by the other measure, but in neither is it far from zero. It is only for college educated women that the wage discount for being self-employed is 20 percent and that discount is only slightly offset by amenities. Overall, this suggests that self-employment is equally valued as formal salaried employment by all except educated women.

**Conclusion**

The vast majority of informal workers are found either running or working in microfirms of less than five workers making understanding the logic of self-employment central to understanding informality. Drawing on multiple

types of evidence from advanced economies and developing countries, chapter 1 shows that a majority of self-employed workers—both own-account and employers of very small businesses—report entering for opportunity-driven reasons such as independence, flexibility, and higher-perceived welfare, with nonpecuniary “amenity values” playing a central role in occupational choice. The responses are remarkably similar to those found in the United States and OECD countries.

Survey, transition, and new WTP data from Latin America and elsewhere demonstrate that most self-employed would need to be paid substantial fractions, even multiples, of their current incomes to take a formal job, confirming that earnings gaps alone are unhelpful as measures of job quality or labor market segmentation into formal and informal jobs. The best estimates to date suggest that there is no “utility” gap between formal salaried and informal self-employment: the sector can be viewed as a rational choice along a continuum of work arrangements offering different productivities and amenities.

The chapter confirms a robust global pattern in which the share of the self-employed in the workforce declines with development—and LAC countries are following the historic within-country trends of the advanced economies. This decline is most likely driven by rising productivity in formal work, which increases the opportunity cost of being self-employed, and rising amenities in salaried work, rather than labor market rigidities. Cross-country deviations from trend reflect differences in the valuation of benefits, geography, economic structure, and competition, among other possibilities.

## Notes

1. World Bank calculations using Socio-Economic Database for Latin America and the Caribbean (SED-LAC), jointly developed by CEDLAS (Universidad Nacional de La Plata) and the World Bank.
2. Refer to Arias and Khamis (2008); Bosch et al. (2007); Bosch and Maloney (2008); Fajnzylber et al. (2009); Fiess et al. (2010); and Maloney (1999, 2004).
3. The other sector in a dual economy is the traditional sector, which produces basic goods and provides stability. Many microfirms and own-account firms are assumed to produce in the traditional sector.
4. For extensive examination of this problem, see the World Bank Productivity Project (<https://www.worldbank.org/en/topic/competitiveness/brief/the-world-bank-productivity-project>).
5. Hurst and Pugsley (2011) for the United States ask: “If most small businesses do not want to grow or do not want to innovate, why do they start? . . . Again, we use a new data set that samples nascent business owners at the time they were starting their business that specifically asks about motives and expectations. . . . Only 40 percent indicated that they were starting a business because they wanted to create

a new product or because they had a good business idea. Using the panel nature of the data, we show that those small businesses that started for other than innovative reasons were less likely to subsequently grow, less likely to report wanting to grow, less likely to subsequently innovate, and less likely to report wanting to innovate.”

6. The ISSP is a cross-national collaboration program that conducts annual surveys on diverse topics relevant to the social sciences. ISSP Research Group, International Social Survey Programme: Work Orientations IV - ISSP 2015 (ZA6770; Version 2.1.0) data set. GESIS. [https://search.gesis.org/research\\_data/ZA6770](https://search.gesis.org/research_data/ZA6770).
7. National Administrative Department of Statistics, Great Integrated Household Survey (GEIH) 2023, Colombia, [https://microdatos.dane.gov.co/index.php/catalog/782#metadata-producers\\_sponsors](https://microdatos.dane.gov.co/index.php/catalog/782#metadata-producers_sponsors).
8. Federal Reserve Banks of New York, Cleveland, and Richmond, “2025 Report on Nonemployer Firms: Findings on Hiring Plans from the 2024 Small Business Credit Survey,” October 14, 2025.
9. This topic is covered in the extensive literature on structural transformation.
10. See Ohnsorge and Yu (2022).
11. A recent study using surveys from eight LAC countries finds notable cross-country differences, with countries clustering into high unemployment-low informality or low unemployment-high informality groups (Aristizabal-Ramirez et al. 2024).
12. It is also worth mentioning that measuring returns to education as a measure of sector quality is also misleading precisely because the fact that the self-employed work for themselves eliminates important agency problems. As Wolpin (1977) argued, education plays a screening or signaling role when employers cannot observe potential workers’ true level of skill (refer also to Hamilton 2000). Hence, measured returns are only partly capturing actual returns to skills. The lower returns found in self-employment in the United States are due to the fact that employers do not need to signal to themselves about their level of skill; they already know it. For the same reasons, returns to experience will not include the efficiency wage effects—where employers need to increase salaries over time to ensure workers do not leave for other firms, taking valuable training investments with them.
13. The analysis uses the terms “independence” and “job autonomy” interchangeably.
14. For a nationally representative survey in Denmark, workers are willing to forgo up to 12 percent of their earning for some flexibility and 13 percent for high levels of schedule flexibility (Eriksson and Kristensen 2014). These levels are similar to findings for the United States that find average valuation for schedule flexibility at 9 percent of wages (Maestas et al. 2023), noting significant variation among different demographic groups. In a sample of potential workers applying for jobs in a call-center in the United States, surprisingly, most workers did not value schedule flexibility, although there was considerable variation across workers, with some workers willing to pay up to 16 percent of their wages for flexibility. However, workers were willing to accept 20 percent lower wages to avoid jobs in which the employer could set their schedules (Mas and Pallais 2017). In a sample of high-ability undergraduates in a US college, female students were willing to give up 7 percent of their pay to have a job that included the option of part-time hours, while men were willing to give up only 1 percent of pay (Wiswall and Zafar 2018).
15. Flexibility had no value when offered in the context of a part-time job.
16. For Denmark, strong positive correlations emerged when comparing individuals’ willingness to pay for benefits with their current job amenities, suggesting that workers may be sorting (Eriksson and Kristensen 2014). Similarly, in the study of the call-center in the United States (see note 12), while workers, on average, did not

value flexibility highly, the top 25 percent of workers in jobs that offered flexibility in work schedules were willing to forgo 16 percent of their pay to make their own schedule (Mas and Pallais 2017). Additionally, workers who enjoy working-from-home arrangements reported that they would pay more than twice as much for this benefit (18.7 percent versus 8.6 percent) as workers without it (Mas and Pallais 2017). Perhaps the strongest evidence comes from the study of undergraduate students in the United States; a follow-up survey several years after the original experiment found a consistent correlation between participants' job preferences expressed during college and the attributes of their current workplaces after they had graduated (Wiswall and Zafar 2016).

17. The first amenity-adjusted wage gap uses each employment group's own preferences to value their respective job amenities; formal salaried workers value their amenities using formal salaried (FS) workers' preferences; and self-employed workers value theirs using self-employed (SE) workers' preferences. The second amenity-adjusted wage gap instead applies self-employed/informal salaried (SE/IS) workers' preferences for job amenities—including the value of being formal, of flexibility, and of autonomy—to all workers, including those in FS employment. This adjustment estimates how much of the observed wage gap could be explained if FS jobs were evaluated using the same value SE workers place on nonwage job characteristics. This approach assumes that (a) SE workers' preferences are stable and representative of how they would value amenities if employed formally; (b) differences in job amenities, rather than productivity or other unobserved factors, are the primary drivers of wage differences; and (c) the labor market does not adjust in response to changes in preferences (that is, a partial equilibrium). Although this provides a useful metric for understanding how SE workers might perceive FS jobs, it assumes they would find a job like the average FS job, which might be unlikely.

## References

- Afristat. 2020. *Enquête Régionale Intégrée sur l'Emploi et le Secteur Informel (ERI-ESI) 2017–2018: Rapport régional final*. Afristat.
- Akcigit, U., H. Alp, and M. Peters. 2021. "Lack of Selection and Limits to Delegation: Firm Dynamics in Developing Countries." *American Economic Review* 111 (1): 231–75.
- Ameriks, J., J. S. Briggs, A. Caplin, M. D. Shapiro, and C. Tonetti. 2015. "Long-Term-Care Utility and Late-in-Life Saving." NBER Working Paper 20973, National Bureau of Economic Research. <https://ssrn.com/abstract=2572132>.
- Antunes, A., and M. Centeno. 2005. "Do Labor Market Policies Affect Employment Composition? A Look at European Countries." Banco de Portugal.
- Arias, O., and M. Khamis. 2008. "Comparative Advantage, Segmentation and Informal Earnings: A Marginal Treatment Effects Approach." IZA Discussion Paper No. 3916, IZA–LISER Network, December. <https://www.iza.org/en/publications/dp/3916>.
- Aristizabal-Ramirez, M., C. Santos, and A. Torres. 2024. "Arepas Are Not Tacos: On the Labor Markets of Latin America." International Finance Discussion Paper Number 1396, Board of Governors of the Federal Reserve System.
- Asmal, Z., H. Bhorat, A. Lochmann, and S. Kishan. 2024. "Supply-Side Economics of a Good Type: Supporting and Expanding South Africa's Informal Economy." Working Paper No. 158, Development Policy Research Unit, University of Cape Town.

- Bellon, M. 2018. "Trade Liberalization and Inequality: A Dynamic Model with Firm and Worker Heterogeneity." Unpublished manuscript. <https://matthieubellon.com/docs/TradeLiberalizationInequalityDynamics2018.pdf>.
- Benz, M., and B. S. Frey. 2003. "The Value of Autonomy: Evidence from the Self-Employed in 23 Countries." Institute for Empirical Research in Economics, University of Zurich.
- Beylis, G., E. Cerutti, and W. Maloney. Forthcoming. "Formality as an Input in Production: Micro-Entrepreneurship and Informality in Chile, Colombia, and Mexico." Background paper for this volume, World Bank.
- Beylis, G., W. Maloney, and A. Zambrano. 2026. "Self-Employment and Development: Job Amenities, (Mis)allocation, and Informality." World Bank.
- Beylis, G., A. Garin, N. Gonzalez-Prieto, and D. Koustas. 2026. "Valuing Alternative Work Arrangements: Evidence from 7 Countries with High Rates of Informality." Policy Research Working Paper, World Bank.
- Blanchflower, D. G., and A. J. Oswald. 1990. "What Makes an Entrepreneur? Evidence on Inheritance and Capital Constraints." NBER Working Paper 3252, National Bureau of Economic Research.
- Blau, D. M. 1987. "A Time-Series Analysis of Self-Employment in the United States." *Journal of Political Economy* 95 (3): 445–67.
- Bonhomme, S., and G. Jolivet. 2009. "The Pervasive Absence of Compensating Differentials." *Journal of Applied Econometrics* 24 (5): 763–95.
- Bosch, M., E. Goni, and W. F. Maloney. 2007. "The Determinants of Rising Informality in Brazil: Evidence from Gross Worker Flows." Policy Research Working Paper 4375, World Bank.
- Bosch, M., L. Flabbi, W. F. Maloney, and T. Tejada. 2025. "Sources and Implications of Labor Market Informality: The Case of Minimum Wage Policies." Slides presented at the LCR Economics Seminar Series, November 3. <https://thedocs.worldbank.org/en/doc/c764c3ef55e1aae6b9333caebfa490d0-0370012025/original/Slides-BFMT2025.pdf>.
- Bosch, M., and W. F. Maloney. 2008. "Cyclical Movements in Unemployment and Informality in Developing Countries." Policy Research Working Paper 4648, World Bank.
- Botero, J. C., S. Djankov, R. La Porta, F. Lopez-de-Silanes, and A. Shleifer. 2004. "The Regulation of Labor." *The Quarterly Journal of Economics* 119 (4): 1339–82. <https://doi.org/10.1162/0033553042476215>.
- Bustelo, M., L. Flabbi, and M. Viollaz. 2019. "The Gender Labor Market Gap in the Digital Economy." Working Paper, Inter-American Development Bank. <http://dx.doi.org/10.18235/0001941>.
- Campos, N. F., and J. B. Nugent. 2018. "The Dynamics of the Regulation of Labor in Developing and Developed Countries Since 1960." In *The Political Economy of Structural Reforms in Europe*, edited by N. Campos, P. De Grauwe, and Y. Ji. Oxford University Press.
- Carlsson, F., and P. Martinsson. 2001. "Do Hypothetical and Actual Marginal Willingness to Pay Differ in Choice Experiments?" *Journal of Environmental Economics and Management* 41 (2): 179–92. <https://doi.org/10.1006/jeem.2000.1138>.
- Carson, R. T. 2012. "Contingent Valuation: A Practical Alternative When Prices Aren't Available." *Journal of Economic Perspectives* 26 (4): 27–42. <https://doi.org/10.1257/jep.26.4.27>.
- Cerkez, N., W. Cunningham, S. Gupta, and F. Lung. 2025. "What Do Small and Informal Household Enterprises Want?" Policy Research Working Paper 11235, World Bank.

- Cunningham, W., M. Ngarachu, and A. Kuddo. 2022. *Benchmarking Labor Legislation and Enforcement in South Africa*. World Bank. <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099715108182237686/p172175088141700108c54071df2c525986>.
- Dawson, C., A. Henley, and P. L. Latreille. 2009. "Why Do Individuals Choose Self-Employment?" IZA Discussion Paper No. 3974, IZA–LISER Network.
- De Soto, H. 1989. *The Other Path: The Invisible Revolution in the Third World*. Translated by June Abbot. Harper and Row; *El otro sendero: La revolución informal*. Instituto Libertad y Democracia.
- Dix-Carneiro, R., and B. K. Kovak. 2017. "Trade Liberalization and Regional Dynamics." *American Economic Review* 107 (10): 2908–46.
- Dix-Carneiro, R., and B. K. Kovak. 2023. "Globalization and Inequality in Latin America." NBER Working Paper 31459, National Bureau of Economic Research.
- Donovan, K., W. J. Lu, and T. Schoellman. 2023. "Labor Market Dynamics and Development." *Quarterly Journal of Economics* 138 (4): 2287–325. <https://doi.org/10.1093/qje/qjad019>.
- Eriksson, T., and N. Kristensen. 2014. "Wages or Fringes? Some Evidence on Trade-Offs and Sorting." *Journal of Labor Economics* 32 (4): 899–928.
- Evans, D. S., and L. S. Leighton. 1989. "Some Empirical Aspects of Entrepreneurship." *American Economic Review* 79 (3): 519–35. <http://www.jstor.org/stable/1806861>.
- Fajnzylber, P., W. Maloney, and G. Montes-Rojas. 2006. "Microenterprise Dynamics in Developing Countries: How Similar Are They to Those in the Industrialized World? Evidence from Mexico." *World Bank Economic Review* 20 (3): 389–419.
- Fajnzylber, P., W. F. Maloney, and G. Montes-Rojas. 2009. "Releasing Constraints to Growth or Pushing on a String? Policies and Performance of Mexican Micro-Firms." *Journal of Development Studies* 45 (7): 1027–47.
- Falco, P., W. F. Maloney, B. Rijkers, and M. Sarrias. 2015. "Heterogeneity in Subjective Wellbeing: An Application to Occupational Allocation in Africa." *Journal of Economic Behavior & Organization* 111: 137–53.
- Feng, Y., and J. Ren. 2023. "Skill Bias, Financial Frictions, and Selection into Entrepreneurship." *Journal of Development Economics* 162: 103046. <https://doi.org/10.1016/j.jdeveco.2023.103046>.
- Fields, G. S. 2019. Self-Employment and Poverty in Developing Countries. IZA World of Labor.
- Fields, G. S., T. H. Gindling, K. Sen, M. Danquah, and S. Schotte, eds. (2023). *The Job Ladder: Transforming Informal Work and Livelihoods in Developing Countries*. Oxford University Press.
- Fiess, N. M., M. Fugazza, and W. F. Maloney. 2010. "Informal Self-Employment and Macroeconomic Fluctuations." *Journal of Development Economics* 91 (2): 211–26.
- Fietz, K., C. Joubert, H. Ñopo et al. 2025. *(In)Formalizing Jobs in Latin America and the Caribbean: Taxes, Benefits, and Labor Market Incentives*. World Bank.
- Garin, A., D. Koustas, and L. Tô. 2024. "Why Do People Choose Alternative Work Arrangements? Evidence from a Survey Experiment." Presented at the 2025 Annual Meeting of the American Economic Association. <https://www.aeaweb.org/conference/2025/program/1288>.
- Gollin, D. 2008. "Nobody's Business but My Own: Self-Employment and Small Enterprise in Economic Development." *Journal of Monetary Economics* 55 (2): 219–33.
- Gottschalk, P., and T. Maloney. 1985. "Involuntary Terminations, Unemployment, and Job Matching: A Test of Job Search Theory." *Journal of Labor Economics* 3 (2): 109–23.

- Hamilton, B. H. 2000. "Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment." *Journal of Political Economy* 108 (3): 604–31.
- Harris, J. R., and M. P. Todaro. 1970. "Migration, Unemployment and Development: A Two-Sector Analysis." *American Economic Review* 60 (1): 126–42.
- He, H., D. Neumark, and Q. Weng. 2021. "Do Workers Value Flexible Jobs? A Field Experiment." *Journal of Labor Economics* 39 (3): 709–38. <https://www.journals.uchicago.edu/doi/abs/10.1086/711226>.
- Herreño, J., and S. Ocampo. 2023. "The Macroeconomic Consequences of Subsistence Self-Employment." *Journal of Monetary Economics* 136 (C): 91–106.
- Hsieh, C.-T., and P. J. Klenow. 2009. "Misallocation and Manufacturing TFP in China and India." *Quarterly Journal of Economics* 124 (4): 1403–48. <https://doi.org/10.1162/qjec.2009.124.4.1403>.
- Hughes, K. 2006. "Exploring Motivation and Success Among Canadian Women Entrepreneurs." *Journal of Small Business and Entrepreneurship* 19 (2): 107–20.
- Hurst, E., and B. W. Pugsley. 2011. "What Do Small Businesses Do?" NBER Working Paper 17041, National Bureau of Economic Research.
- Hwang, H. S., D. T. Mortensen, and W. R. Reed. 1998. "Hedonic Wages and Labor Market Search." *Journal of Labor Economics* 16 (4): 815–47.
- Ianchovichina, E., and R. Zárate. 2021. "Segregation, Informality, and Misallocation." Background paper prepared for the report *The Evolving Geography of Productivity and Employment*, World Bank.
- Jaar, D. 2024. "Self-Employment as Self-Insurance." University of Pennsylvania, November 6. <https://doi.org/10.2139/ssrn.5175208>.
- Jedwab, R., F. Meier zu Selhausen, and A. Moradi. 2022. "The Economics of Missionary Expansion: Evidence from Africa and Implications for Development." *Journal of Economic Growth* 27 (2): 149–92.
- Kimball, M. S., and M. D. Shapiro. 2008. "Labor Supply: Are the Income and Substitution Effects Both Large or Both Small?" NBER Working Paper 14208, National Bureau of Economic Research.
- Lang, K., and S. Majumdar. 2004. "The Pricing of Job Characteristics When Markets Do Not Clear: Theory and Policy Implications." *International Economic Review* 45 (4): 1111–28.
- Levy, S. 2008. *Buenas intenciones, malos resultados: política social, informalidad y crecimiento económico en México*. Océano.
- Loayza, N. 2018. "Informality: Why Is It So Widespread and How Can It Be Reduced?" Research & Policy Brief No. 20, World Bank.
- Loayza, N., A. M. Oviedo, and L. Servén. 2005. "The Impact of Regulation on Growth and Informality: Cross-Country Evidence." Policy Research Working Paper 3623, World Bank. <http://hdl.handle.net/10986/8222>.
- Loayza, N. V., and J. Rigolini. 2011. "Informal Employment: Safety Net or Growth Engine?" *World Development* 39 (9): 1503–15.
- Lucas, R. E. 1978. "On the Size Distribution of Business Firms." *The Bell Journal of Economics* 9 (2): 508–23.
- Maestas, N., K. J. Mullen, D. Powell, T. Von Wachter, and J. B. Wenger. 2023. "The Value of Working Conditions in the United States and Implications for the Structure of Wages." *American Economic Review* 113 (7): 2007–47.
- Maloney, W. F. 1999. "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico." *World Bank Economic Review* 13 (2): 275–302.

- Maloney, W. F. 2001. "Self-Employment and Labor Turnover in Developing Countries: Cross-Country Evidence." In *World Bank Economists' Forum*, edited by Shantayanan Devarajan, F. Halsey Rogers, and Lyn Squire, Vol. 1, 137–67. World Bank.
- Maloney, W. F. 2004. "Informality Revisited." *World Development* 32 (7): 1159–78.
- Maloney, W. F., G. Vuletin, P. Garriga, and R. Morales. 2025. *Transformational Entrepreneurship for Jobs and Growth*. Latin America and the Caribbean Economic Review (October). World Bank. <http://hdl.handle.net/10986/43741>.
- Mas, A., and A. Pallais. 2017. "Valuing Alternative Work Arrangements." *American Economic Review* 107 (12): 3722–59. <https://doi.org/10.1257/aer.20161500>.
- Ohnsorge, F., and S. Yu, eds. 2022. *The Long Shadow of Informality: Challenges and Policies*. World Bank. <https://doi.org/10.1596/978-1-4648-1753-3>.
- Perry, G., W. F. Maloney, O. S. Arias, P. Fajnzylber, A. D. Mason, and J. Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. World Bank Latin American and Caribbean Studies. World Bank. <http://documents.worldbank.org/curated/en/326611468163756420>.
- Revelt, D., and K. Train. 1998. "Mixed Logit with Repeated Choices: Households' Choices of Appliance Efficiency Level." *The Review of Economics and Statistics* 80 (4): 647–57. <https://doi.org/10.1162/003465398557735>.
- Rosen, S. 1974. "Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition." *Journal of Political Economy* 82 (1): 34–55. <https://doi.org/10.1086/260169>.
- Rosen, S. 1986. "The Theory of Equalizing Differences." In *The Handbook of Labor Economics*, edited by Orley C. Ashenfelter and Richard Layard, Vol. 1, 641–92. North-Holland.
- Schoar, A. 2010. "The Divide Between Subsistence and Transformational Entrepreneurship." In *Innovation Policy and the Economy*, edited by Josh Lerner and Scott Stern, 57–81. National Bureau of Economic Research.
- Smeaton, D. 2003. "Self-Employed Workers: Calling the Shots or Hesitant Independents? A Consideration of the Trends." *Work, Employment & Society* 17 (2): 379–91.
- Terra, M. I. 2003. "Trade Liberalization in Latin American Countries and the Agreement on Textiles and Clothing in the WTO." *Économie internationale* 9495 (2): 137–54.
- Van Soest, A., and H. Vonkova. 2014. "How Sensitive Are Retirement Decisions to Financial Incentives? A Stated Preference Analysis." *Journal of Applied Econometrics* 29 (2): 246–64.
- Wiswall, M., and B. Zafar. 2016. "Preference for the Workplace, Human Capital, and Gender." NBER Working Paper 22173, National Bureau of Economic Research.
- Wiswall, M., and B. Zafar. 2018. "Preference for the Workplace, Investment in Human Capital, and Gender." *The Quarterly Journal of Economics* 133 (1): 457–507.
- Wolpin, K. I. 1977. "Education and Screening." *American Economic Review* 67 (5): 949–58.

# The Global Microfirm Paradox

## Satisfied Entrepreneurs but Limited Growth

# 2

### The Growth Dynamics of Microfirms

The findings from chapter 1 of this volume give rise to an entrepreneurial paradox. Dating back to the pioneering work of Joseph Schumpeter in the 1930s (Schumpeter 1934), entrepreneurship has been recognized as a central driver of economic growth. Yet although Latin America and the Caribbean (LAC) has a relatively high share of entrepreneurs in the workforce, the region suffers from some of the lowest growth rates in the world.<sup>1</sup> The low dynamism might be expected if the ubiquity of own-account workers and microfirms was the result of involuntary entry into the sector. However, as chapter 1 showed, most informal firms in LAC enter for reasons of opportunity—just like their counterparts in advanced member-countries of the Organisation for Economic Co-operation and Development (OECD).

This chapter explores the characteristics and dynamics of informal firms around the world, and in LAC in particular, and argues that the resolution of this paradox can be found in mainstream economic theory and elucidated by the behavior of microfirms in advanced economies. Lucas (1978) argued that the existence of a range of entrepreneurial abilities leads to “mom-and-pop” stores coexisting with giants like Walmart. Elaborating on this point, Hurst and Pugsley (2011) find that the former enter without aspirations to grow their businesses precisely because they prefer the job amenities discussed in chapter 1.

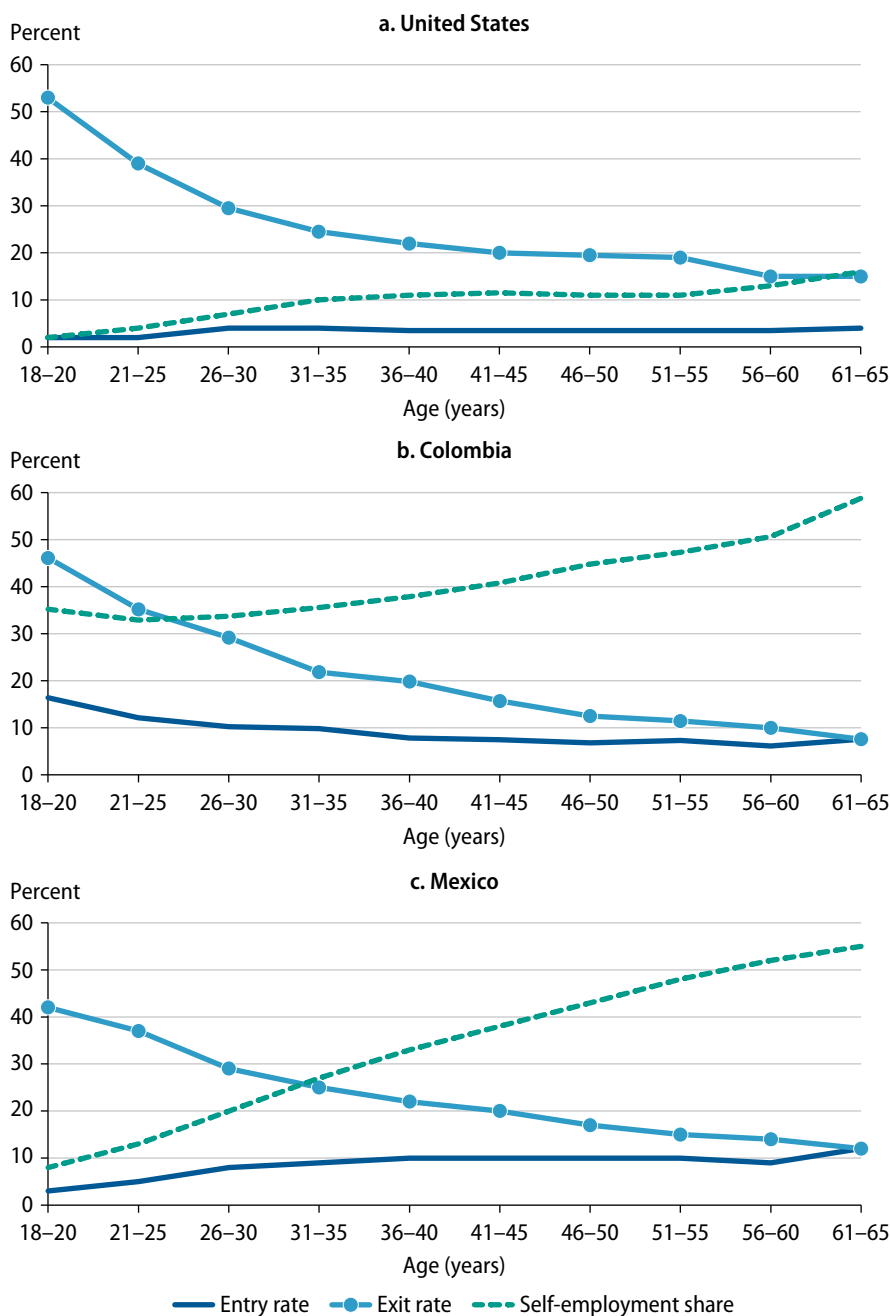
There is nothing pathological in the persistence of such microfirms in the advanced economies; the fact that LAC informal microfirms behave very much like their Danish, German, US, and similar counterparts in decisions about entry, exit, and growth suggests the same can be said of them. Their dynamics are well described by standard mainstream models, and there is no obvious reason to *ex ante* assume a distinct production function for these types of firms.

The high amenity value of self-employment *does* introduce an important type of misallocation. For most self-employed workers—except for the relatively small share (about 30 percent, as shown in chapter 1) searching for better jobs—the marginal utility of being self-employed is likely equal to that of being formal salaried. Thus, in aggregate, the allocation of workers may be close to optimal from a social welfare point of view. Given their preferences for agency and autonomy, these workers cannot be made better off. However, marginal productivity is not equated between formal and informal sectors and from the point of view purely of economic growth, there is little dynamic potential in such an allocation. In other words, the high value that workers in self-employment place on agency and independence introduces a “misallocation” to small low-productivity firms of many workers who, from a growth perspective, would be better allocated to larger more productive formal firms.

## The Entry and Exit Dynamics of Microfirms

The entry and exit dynamics of microfirms in LAC are very similar to those of microfirms in the United States and are consistent with the mainstream literature on firm dynamics. Figure 2.1 shows similar patterns of entry and exit with worker age between US firms, as examined in the classic study of US self-employment by Evans and Leighton (1989), and those of Colombia and Mexico. Entry is broadly constant or rising with worker age, while exit decreases with worker age. Entry rates are roughly double in LAC (consistent with the comparative advantage of self-employment, as driven by considerations of amenities and relative productivity) while exit rates are lower. As a result, the share of self-employment in the workforce is larger. The distinguishing feature of Colombia and Mexico is the higher entry and lower exit rates that lead to a larger sector size over time. Exit rates are consistent with those calculated for a broader range of countries: They are lower than rates in the United States and decrease with firm and worker age (McKenzie and Paffhausen 2019).

**FIGURE 2.1** Higher Entry and Lower Exit Rates in Colombia and Mexico Lead to a Higher Share of Self-Employment than in the United States, although the Dynamics Are Very Similar



Sources: a. Evans and Leighton 1989. b. Original figure for this volume based on Gran Encuesta Integrada de Hogares 2022. c. Fajnzylber et al. 2006.

Note: The panels show the entry and exit rates and employment share for the self-employed by the age of the owner.

## The Dynamics of Entry and Exit Viewed Through Labor Flows

The traditional view of the informal sector that sees it as the disadvantaged sector of a segmented labor market suggests, first, that it should move countercyclically—expanding in downturns and contracting in upturns—as does unemployment, and second, that it should show similar gross worker flows across sectors to unemployment more generally. Recent cross-country evidence, however, suggests that informal employment is broadly stable through formal-economy business cycles, while informal output tends to co-move with formal output, rather than systematically expanding in recessions (Ohnsorge and Yu 2022).

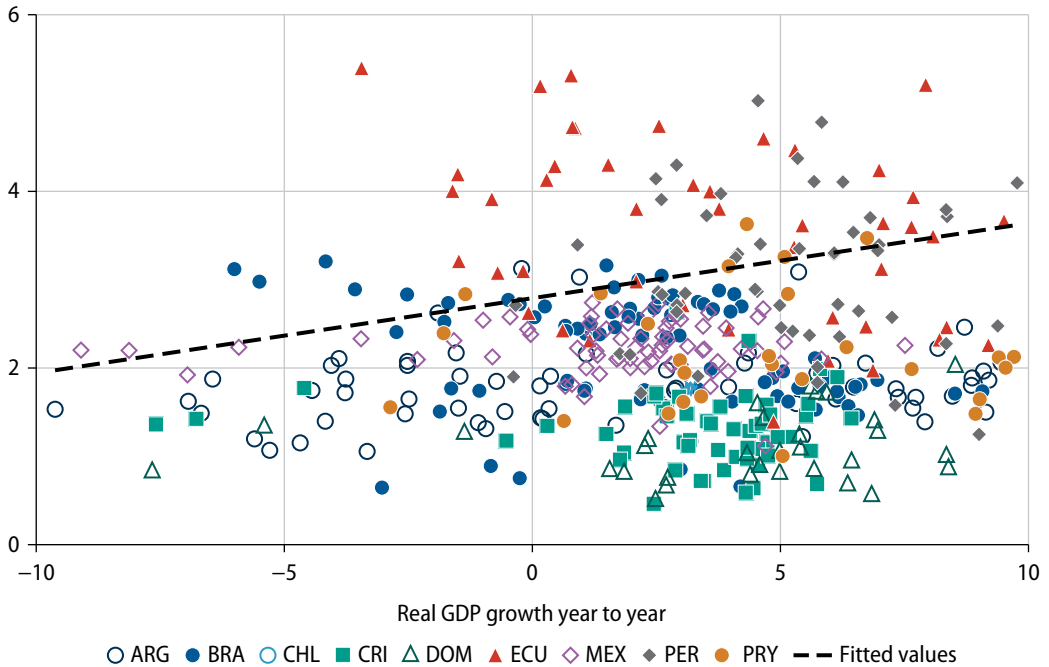
Bosch and Maloney (2010) show that in Mexico during the period of low minimum wages, there appeared to be increased search and job rematching in good times, with flows increasing in both directions and informal self-employment expanding. Fiess et al. (2010) show that while in Mexico self-employment expanded and relative earnings in the sector rose in booms, the reverse was true in Colombia, arguably because minimum wages were more binding and the sector had a larger share of necessity entrants who exited once formal jobs became available.

Figure 2.2 presents the correlation between economic expansion (gross domestic product [GDP] growth) and the growth of self-employment for a much larger sample of country-year observations. Pooled, there is a significant positive relationship between growth and entry into informal self-employment that becomes insignificant with country fixed effects. At the individual country level, Argentina and Chile showed significant procyclical entry; Brazil and Ecuador show significantly countercyclical entry; while entry coefficients in Costa Rica, the Dominican Republic, Mexico, Paraguay, and Peru are not remotely significant. Although the individual country studies are more convincing, the cyclicity of entry into the sector is clearly specific to the context, but countercyclicality cannot be taken as a stylized fact.

Recent work has argued that the motivations of the self-employed can be gleaned by comparing entry and exit dynamics to those of other sectors. In particular, Donovan et al. (2023) argue that patterns of exit from self-employment to formal salaried status are similar to those from unemployment, suggesting that the two sectors play similar roles. Building on earlier work on gross labor flows to and from unemployment, informal self-employment, and salaried self-employment in Europe (Petrongolo and

**FIGURE 2.2** Gross Domestic Product Growth and Transitions from Formal Employment to Self-Employment

Transition FS to SE (%)



Source: Original calculations for this volume based on underlying data from Donovan et al. 2023 and World Bank World Development Indicators (WDI), 2023.

Note: The figure shows the correlation between economic expansion (GDP growth) and the percent of workers transitioning from formal salaried to self-employment in a sample of Latin American and Caribbean countries. For country abbreviations, refer to International Organization for Standardization (ISO), <https://www.iso.org/obp/ui/#search>. FS = formal salaried; GDP = gross domestic product; SE = self-employment.

Pissarides 2008) and Latin America (Bosch and Maloney 2010; Elsby et al. 2013; Hobijn and Şahin 2009; Rud and Trapeznikova 2021), Donovan and coauthors expand the number of data sets to study labor force dynamics across the development process and confirm earlier findings that developing-country markets are very fluid and have high rates of turnover.

The conclusion that self-employment plays more of a disguised unemployment role in developing countries than in advanced economies emerges from figure 2.3, which plots the ratio of work-finding rates from unemployment (U) to salaried employment (S) relative to the analogous ratio from self-employment (SE) to salaried employment (S). This ratio increases dramatically across the development process. Although the extremely high values are due to very low values of transitions from SE to S in the denominator for countries like Czechia and France. Inspired by Flinn and Heckman (1983), who argue that sectors with similar dynamics have similar

**FIGURE 2.3 Relative Work-Finding Rates**

SE->S/U->S



Source: Original calculations for this volume based on underlying data from Donovan et al. 2023.

Note: The figure plots ratio of the transition from self-employment (SE) to salaried work to the transitions from unemployment (U) to salaried employment (S). LAC countries are indicated in red. International Organization for Standardization (ISO) country codes are available at <https://www.iso.org/obp/ui/#search>. GDP = gross domestic product; LAC = Latin America and the Caribbean; S = salaried employment; SE = self-employment; U = unemployment.

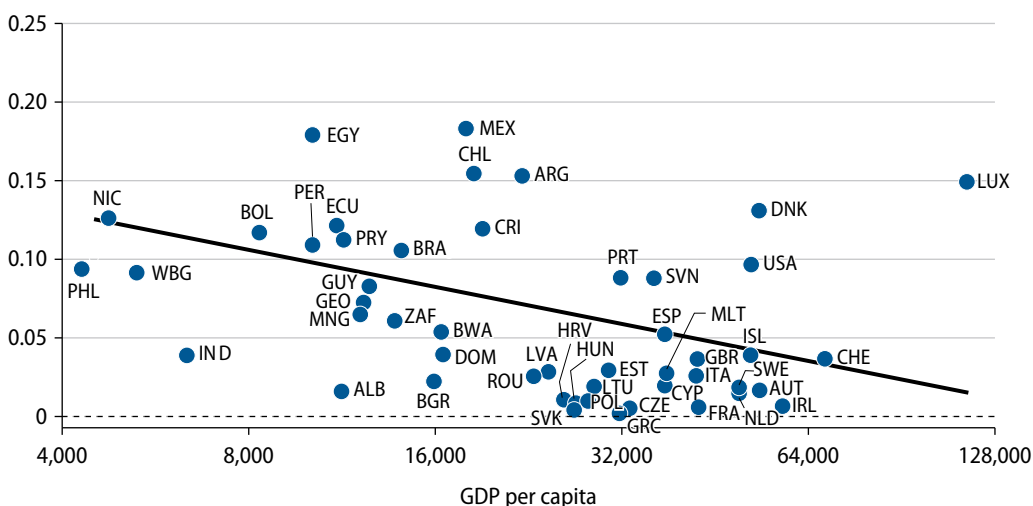
reasons for being, Donovan et al. (2023) argue that the similarity in transition rates to S breaks down as countries develop and self-employment becomes less similar to unemployment.

However, their findings are more consistent with the view presented here that self-employment is, in fact, considered a close substitute for formal salaried work in poor countries. The decreasing similarity is between self-employment and salaried work, not with unemployment. First, as shown in panel b, over a single quarter, four times as many unemployed move to salaried work as self-employed, on average. This is consistent with the findings from the introductory chapter (table I.1) that self-employment and unemployment are opposite extremes of job stability (duration in sector)—seven years versus three months—implying that transitions in any direction are likely to be lower. In Flinn and Heckman’s terms, they have radically different dynamics and hence are not similar sectors.

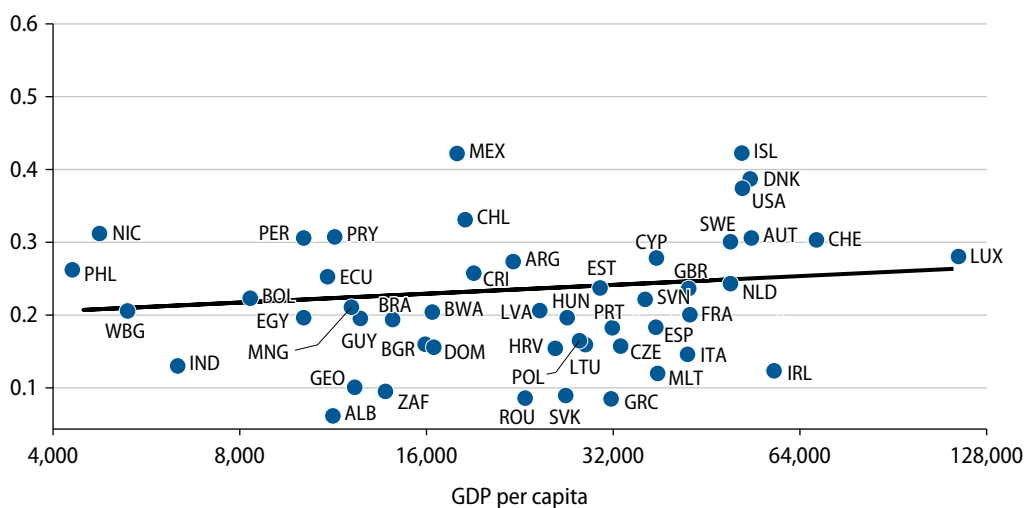
Second, it is not self-employment and unemployment that grow less alike with development, but self-employment and salaried work. Disaggregating figure 2.3, as illustrated in figure 2.4, shows that the ratio of transitions from unemployment to salaried employment (U to S ratio) rises slightly (but

**FIGURE 2.4** Work Transition Rates: Disaggregation of Figure 2.3

**a. Transition rate from self-employment to salaried employment over one quarter**

$$(SE \rightarrow S)/SE$$


**b. Transition rate from unemployment to salaried employment over one quarter**

$$(U \rightarrow S)/U$$


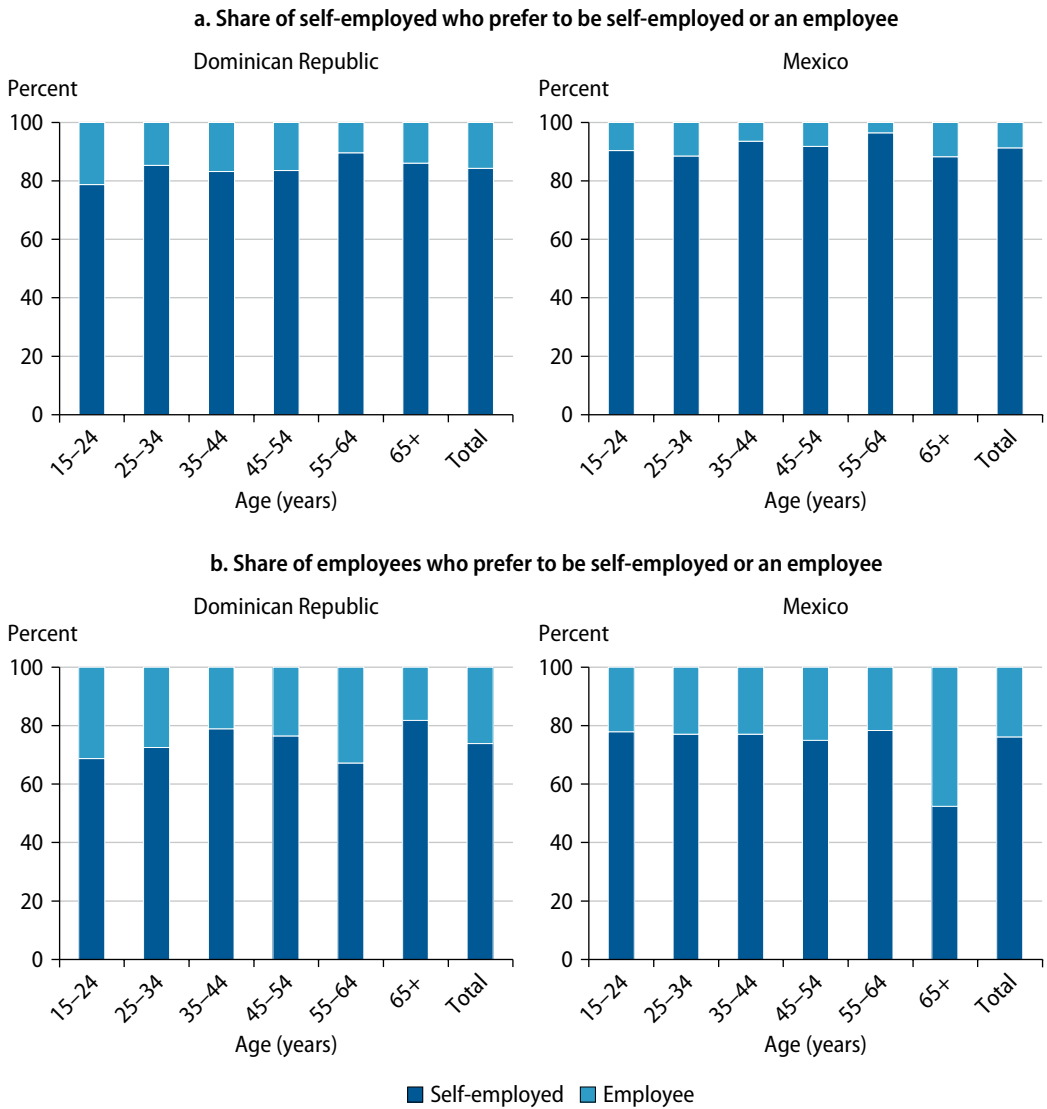
not significantly) with development, but the *decrease in flows from self-employment (SE) to salaried employment (S)* is what drives figure 2.3. That is, consistent with the declining share of salaried workers who report preferring to be self-employed with development from the International Social Survey Programme (ISSP) in chapter 1, there is less “substitutability” between the two sectors. Hence, Donovan and coauthors are consistent with the view of self-employment as a very desirable sector in poor countries and not disguised unemployment.

Clearly, as noted, there is always a share of self-employment that is necessity based and perhaps serving as disguised unemployment. But the majority of workers enter self-employment for opportunity reasons.

### **Why Does Self-Employment Increase Across the Life Cycle?**

In the United States, the increased entry with worker age posed something of a puzzle given that young people should arguably be less risk averse and thus more likely to start their own business or be self-employed (Johnson 1978; Jovanovic 1979 for the United States). This does not happen in the United States or Mexico, however. It does happen in Argentina and Colombia (Mandelman and Montes-Rojas 2009; Montes-Rojas and Siga 2009), suggesting that with greater rigidities, the self-employment sector may be serving as a platform to search for a formal salaried job.

In virtually all countries, however, the tendency is for the aggregate effect to lead to a rising share of self-employed in the workforce as age increases (figure 1.5, table 1.1; see also Perry et al. 2007). On the one hand, it could be that as workers age, they lose the skills that make them suitable for the formal sector and hence seek refuge in self-employment, and therefore entry would be increasingly involuntary with age. But that does not appear to be the case. First, the aggregate data from the ISSP discussed in chapter 1 capturing all self-employed, regardless of income or formality status, show relatively constant preferences for self-employment across the age distribution, and the reverse in the Dominican Republic, with perhaps a little less enthusiasm for self-employment among the oldest salaried workers in Mexico (figure 2.5). The share of salaried workers

**FIGURE 2.5** Preferences for Self-Employment Vary with Age in the Dominican Republic and Mexico

Source: International Social Survey Programme (ISSP), 2005.

who say they would prefer to be self-employed drops off after age 65 in Mexico but actually increases somewhat in the Dominican Republic. These patterns are remarkably similar to those observed, respectively, in the United States and, although at a different level, in the Philippines (not shown).

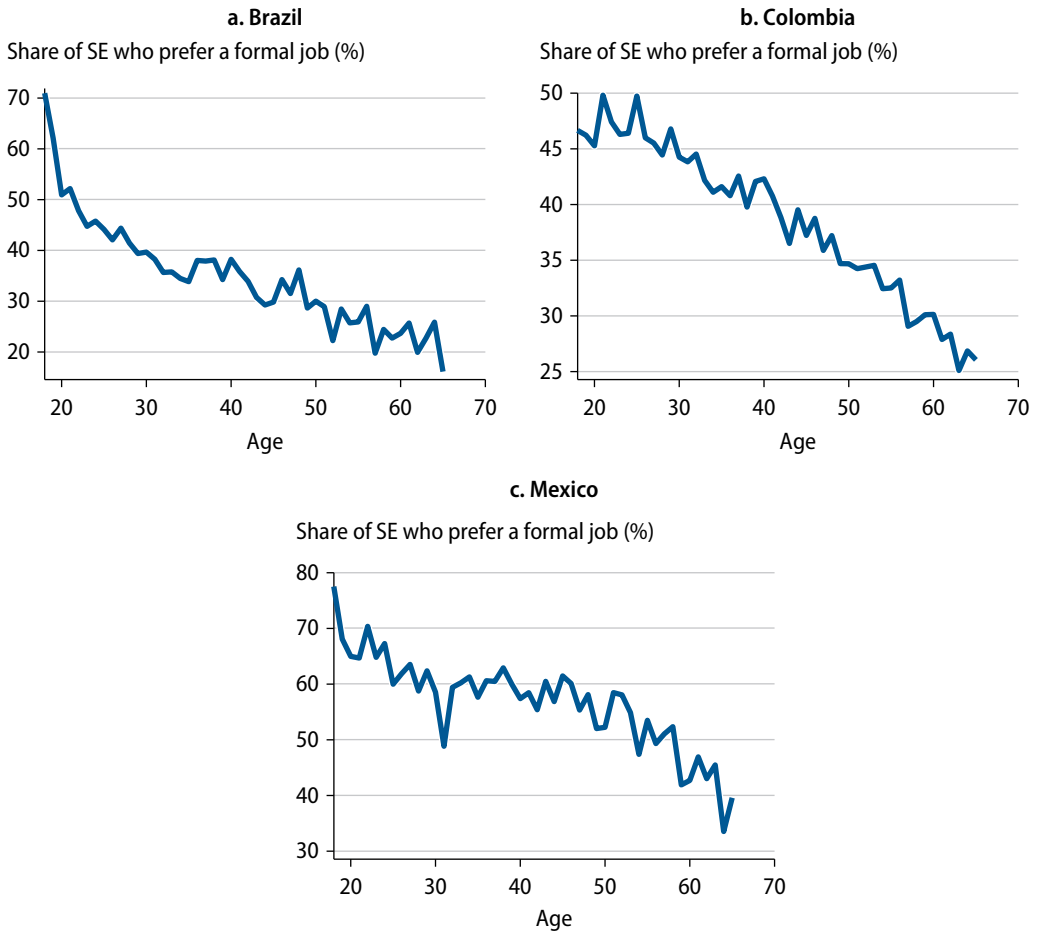
Labor force surveys from Brazil, Colombia, and Mexico allow the informal self-employed to be identified precisely and tell a similar, albeit more dramatic, story (figure 2.6). The share of self-employed in Brazil and Colombia who state they would prefer formal salaried work is 50 percent or above among those age 20–30, but the percentage sharply declines to 20 percent by age 60. The share in Mexico falls from 80 percent to 40 percent, suggesting higher preferences for self-employment among prime-age workers, but lower preferences among older workers than in Brazil or Colombia.

The results are reinforced when workers are asked how much they would need to be compensated to accept a formal job (figure 2.7, for Mexico). The story is similar, with the median necessary payment moving from just over 1.5 times earnings to closer to 2.0 with the entire distribution, and shifting higher for those over age 65. Both results are particularly surprising because as workers age, they might be expected to place a higher value on health benefits through formal employment, or a lower tolerance for risk. It may be that the valuation of being your own boss/doing what you want rises faster with age.

### **The Role of Credit Constraints in Limiting Firm Size and Entrepreneurship**

The literature about US firms resolves the paradox of late entrepreneurship by arguing that entrepreneurs are credit constrained and need to accumulate resources before launching their firm (Evans and Jovanovic 1989; Hamilton 2000). This view is mirrored in the literature for microfirms in LAC. Sociologists Balán et al. (1973, 217), in their study of Mexican men, *Men in*

**FIGURE 2.6** The Share of Self-Employed Who Prefer to Be Formal Salaried Decreases Sharply with Age in Brazil, Colombia, and Mexico

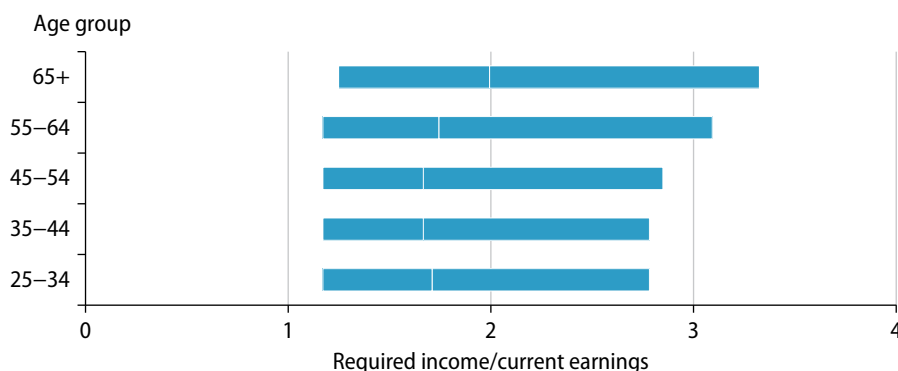


Sources: a. IBGE, National Household Sample Survey (PNAD), 1990. b. DANE, Great Integrated Household Survey (GEIH), 2023.

c. INEGI, National Survey of Micro-Enterprises (ENAMIN), 2012.

Note: In Brazil, respondents were asked: "Would you like to change to a job with a carteira assinada?" In Colombia, respondents were asked: "If you were offered a salaried job, in which you earned the same as you currently do but with benefits, would you accept?" In Mexico, respondents were asked: "Would you accept a salaried job with a similar income to what you currently earn in your business or activity, but where you would have access to IMSS services? Figure shows the share of respondents who answered "Yes." IMSS = Mexican Social Security Institute; SE = self-employed.

**FIGURE 2.7 Workers Value Self-Employment More as They Age: Stated Compensation Required to Switch to a Salaried Job Across the Life Cycle, Mexico**



Source: National Survey of Micro-Enterprises (ENAMIN) 2012.

Note: The figure reports responses in Mexico to the question “How much would you need to be paid to become formal salaried?” divided by respondents’ current earnings. Vertical white line = median. Blue range = 25th to 75th quantiles.

*a Developing Society*, argue that, “First, the man must accumulate capital. This is no easy matter when he has a manual job and must provide for a large family, so it generally takes years to accumulate enough capital. There must be sufficient funds not only to set up the business, but also to keep it going during the months and years while it runs at a deficit.”<sup>2</sup>

Microfirm survey data confirm this assessment (table 2.1). In Colombia and Mexico, about 20 percent of firms say they did not need financing, including because they inherited the business. But for most, accumulated personal savings (including severance pay) account for a large share of start-up resources: 57 percent in Colombia and 53 percent in Mexico. Family loans are the next largest source for informal entrepreneurs (11 percent in Colombia and 14 percent in Mexico).<sup>3</sup> In general, microfirms place little reliance on formal credit for start-up financing, perhaps, as discussed later in this chapter, owing to a fear of indebtedness as much as an absence of access to formal markets. Similar delays in starting a business may arise from the need to accumulate human capital in contexts with poor education systems. Hence, while the amenity value of self-employment is pushing its share of the labor force up, constraints on finance and perhaps human capital work in the opposite direction.

The finding from Mexican panel data that workers with conditionally high wages in their previous formal sector jobs are more likely to enter self-employment supports the view that potential entrepreneurs are initially credit constrained and militates against the view that the self-employed are misfits (Fajnzylber et al. 2006).

**TABLE 2.1 Sources of Financing to Start Up a New Microfirm, Colombia, 2023, and Mexico, 2012**

| Source                | Colombia     |            | Mexico       |            |
|-----------------------|--------------|------------|--------------|------------|
|                       | Informal (%) | Formal (%) | Informal (%) | Formal (%) |
| No financing required | 18           | 10         | 17           | 6          |
| Inherited business    | —            | —          | 2            | 5          |
| Personal savings      | 57           | 52         | 50           | 50         |
| Severance pay         | —            | —          | 3            | 6          |
| Family loans          | 11           | 14         | 14           | 16         |
| Bank loans            | 7            | 18         | 4            | 5          |
| Other                 | 3            | 2          | 11           | 12         |
| Don't know            | 4            | 4          | —            | —          |

Source: Beylis, Cerutti, et al. forthcoming. Based on National Microenterprise Survey (EMICRON) for Colombia; Survey of Micro-Enterprises (ENAMIN) for Mexico.

Note: The responses offered were not identical across the two surveys, so empty cells indicate that this was not an available response. Numbers are the percentage of microfirms. — = data not available.

## Microfirms Everywhere Do Not Grow Very Much

Chapter 1 showed that microfirms in the OECD and LAC regions are quite similar in terms of motivations; most firms enter for perceived opportunities. What is also similar is a general lack of dynamism and aspirations. La Porta and Shleifer (2014) identify five stylized facts about informal firms globally, noting that they are typically small, unproductive, stagnant, run by less educated owners and that they rarely transition into formal enterprises. But these five characteristics are also largely true for microfirms in the United States, where most very small businesses are of the “mom-and-pop” variety, entering small, selling established products in established markets, and then growing very little. Thus the entrepreneurs enter not to grow but for the owners’ flexibility and being their own boss (Hurst and Pugsley 2011). Previous work showed that 67 percent of registered US firms are owner-only, and another 12 percent have at most five workers, including the owner. In Mexico, 62 percent of businesses operated by the self-employed have no employees, and 32 percent have at most five workers (Fajnzylber et al. 2006). Again, the phenomenon is the same—just with Mexico having fewer very large firms.<sup>4</sup>

Most own-account workers report little interest in expanding their businesses—only 8 percent in Chile and 1 percent in Mexico say they want to do so.<sup>5</sup> As in the United States, small firms in Mexico destroy as much employment as they create. Panel employment data from Mexico show that, as predicted by mainstream theory, firms that have higher earnings given

their owner's level of education grow more. However, across one year, 13 percent of own-account workers add at least one worker, but 22 percent of firms with one to four workers contract back to own-account status. Whether due to temporary contractions to meet peaks in demand, unsuccessful exploration of growth opportunities, or simply reporting errors, the steady state size of microfirms remains very small (Fajnzylber et al. 2006).

### Credit Is a Limited Barrier to Growth

Evidence is mixed on whether lack of credit is a binding constraint on microfirm growth. Again, the similarities between microenterprises in the United States, which exist in a relatively well-functioning economic environment, are striking.

Seventy-five percent of US own-account workers have never applied for credit, compared to 83 percent in Mexico and 85 percent in Colombia, table 2.2 shows. These similar levels suggest a common lack of integration with formal credit institutions. The reasons are also similar. Those who

**TABLE 2.2 Most Microfirms in the United States, Mexico, and Colombia Have Never Applied for Credit**

| Respondents             | US      | Colombia   |              | Mexico     |              |
|-------------------------|---------|------------|--------------|------------|--------------|
|                         | All (%) | Formal (%) | Informal (%) | Formal (%) | Informal (%) |
| Never applied           | 75      | 78         | 85           | 73         | 83           |
| No need                 | 39      | 33         | 23           | 49         | 51           |
| Dislikes debt           | 31      | 37         | 46           | 22         | 20           |
| Does not know how       | —       | —          | —            | 3          | 3            |
| High interest fees      | —       | 10         | 6            | 14         | 10           |
| Thinks would not get    | 20      | —          | —            | 2          | 2            |
| Unfavorable terms       | —       | —          | —            | 1          | 1            |
| Too many procedures     | —       | —          | —            | 3          | 2            |
| Cannot repay            | —       | —          | —            | 5          | 10           |
| Did not meet requisites | —       | 11         | 18           | —          | —            |
| Negative credit history | —       | 6          | 4            | —          | —            |
| Other reason            | 10      | 3          | 2            | 2          | 2            |

*Sources:* For the United States (US), Small Business Credit Survey, 2018, <https://www.newyorkfed.org/smallbusiness/small-business-credit-survey-2018>; for Colombia, National Microenterprise Survey (EMICRON), 2024; for Mexico, National Microfirm Survey, 1992.

*Note:* Data for the United States cover own-account workers only. Data for Colombia and Mexico cover firms with up to five employees. The responses offered were not identical across the three surveys, so empty cells indicate that this was not an available response. — = data not available.

either did not need credit or disliked the idea of debt account for the vast majority: 70 percent in the United States, 71 percent in Mexico, and 69 percent in Colombia. This said, about 15 percent of microfirms in Mexico and Colombia applied, and another 15–20 percent did not apply because of some combination of adverse terms, lack of requisites, or just information problems and procedural barriers.

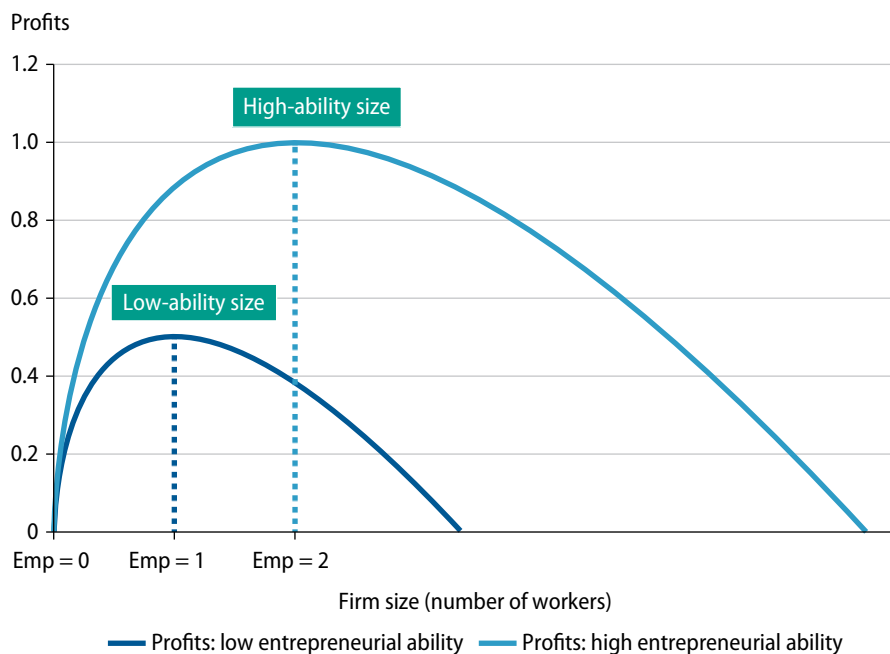
However, there is little evidence that increasing credit would release entrepreneurial energy. A recent meta review of quasi-experimental and experimental evidence on interventions for firms finds some impact from managerial support programs but minimal impact from increased credit accessibility on employment (Grimm and Paffhausen 2015). This is consistent with findings by Banerjee et al. (2015) and Bruhn et al. (2025) that when firms with a large steady state size that want to invest are able to, via more availability of credit, their assets, sales, and number of workers increase. However, they find microfirms are in general not credit constrained.

## The Double Distribution of Firms

The result is that the distribution of firms is characterized by a large mass at very low ability with employment of one to two people and then a more normal distribution incorporating small, medium, and larger firms that mainly start as larger, registered firms. Figure 2.8 depicts a stylized distribution as comprising two different types of firms, much as Lucas's dichotomy between mom-and-pop firms and Walmart.

As in the mainstream literature, the modeling in chapter 4 assumes, as in Lucas (1978), that the two sectors have the same production function—again, not assuming anything *ex ante* pathological about the microfirm sector. The distribution of firms emerges from the distribution of ability, which in turn determines capital accumulation, firm size, and ultimately the level of development. This view provides conceptual underpinnings for the declining share of microfirm employment observed with development. As the distribution of abilities shifts up over time, so does the distribution of firms and productivity, while the share of microfirms shrinks.

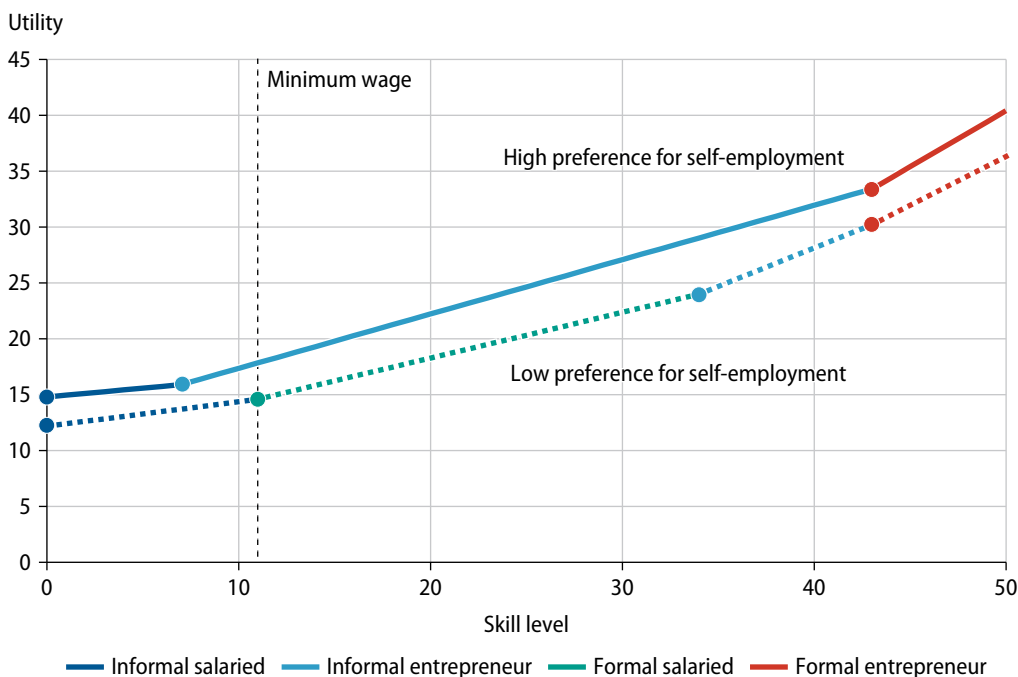
The coexistence of these two broad types does not necessarily imply inefficiency—so long as the owners of the microfirms are indifferent to the opportunities they face in the salaried sector. Their low skill levels give them a comparative advantage/disadvantage for self-employed work (Bosch and Maloney 2010), but far from an absolute advantage as entrepreneurs. As in advanced economies, they will stop growing at a very small size, and optimally so.

**FIGURE 2.8** Size Distribution of Low- and High-Ability Firms

Source: Maloney et al. 2025.

Note: Firm size is in terms of number of workers. Emp = 0 (no workers); Emp = 1 (one worker); Emp = 2 (two workers), and so on.

This vision of firms and their entrepreneurial ability maps to a corresponding one in the labor market in terms of their earnings, as illustrated in figure 2.9. Although this relationship has been demonstrated in table 1.1, there is enormous overlap in earnings, and even more in welfare, between the informal self-employed and the formal salaried, suggesting broad overlap in skills. The differences in education across sectors in table 1.1 suggest that unskilled workers will find their comparative advantage more in the microfirm sector, but as their skills rise, they become better matches for formal firms in the modern sector. Transformational entrepreneurs are those with a high ability who find their comparative advantage in starting a modern enterprise. Such firms tend to be a small subset in most countries, developing and developed, although particularly small in developing.

**FIGURE 2.9 Optimal Occupational Choice, by Skill Level and Preference**

Source: Original figure for this volume based on Beylis, Maloney, et al. 2026.

Note: The figure is a schematic illustration with stylized numbers to depict the underlying mechanisms. The solid line shows the optimal occupational choice for agents by skill level with a high preference for self-employment. The dashed line represents the optimal occupational choice by skill level for agents with low preference for self-employment. The vertical dashed line represents the skill level where the minimum wage segments the market for salaried workers.

## The Decision to Formalize: Formality as an Input for Growth

So far in the analysis, understanding the characteristics and ubiquity of microfirms in the LAC region has been the goal. The firms' informal state has been considered to be almost incidental to both their reason for being and dynamics. The previous section suggests that one of the key arguments for becoming formal—access to credit—does not have widespread appeal because most microfirms do not aspire to grow and if they do so, prefer to do so without bank credit.

As found in Mexico (Levenson and Maloney 1998) and Ecuador (Medvedev and Oviedo 2016), formality is actually a continuum of progressively deeper interactions with the state and societal institutions. It certainly is the case that as firms grow, so does the probability that a firm will be detected for

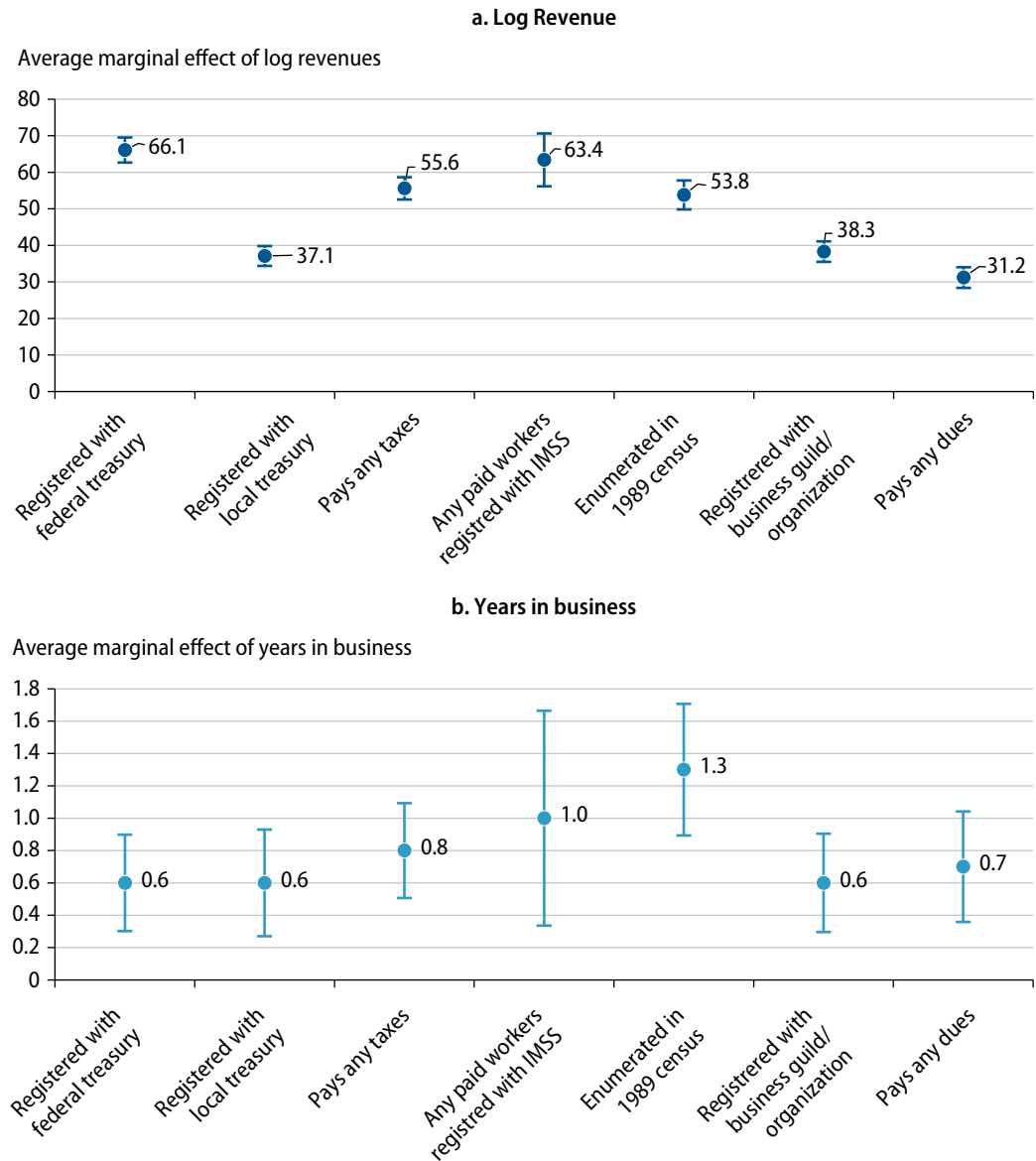
evasion of taxes and regulations (see Brotherhood et al. 2024; Loayza 1996; Samaniego de la Parra and Bujanda 2024). However, formality can also be broadly construed as participation in the institutions of civil society and a “normal input” in the production function of firms (Levenson and Maloney 1998). Firms need more formality as they grow; tax payments may be also seen as the cost of gaining access to the benefits of formality that are necessary for expansion.

For instance, as de Soto (1989) pointed out in the case of Peruvian street vendors, weak property rights made expansion risky and the vendors actively sought to pay their taxes to gain “quasi-property rights” over their respective pitches. In another example, de Paula and Scheinkman (2007) have argued that firms would prefer to pay taxes to secure subcontracting relations with bigger firms. More generally, registration with the government makes it possible to engage in legal contracts, participate in risk pooling and worker insurance mechanisms, and borrow from formal financial institutions. Focus groups in Ecuador reveal that entrepreneurs can pinpoint different “levels of formality,” depending on the perceived importance of regulations and the firm’s ability to comply (based on monetary costs, time, and the burden of acquiring necessary information). Participants claimed that the most important requirements are the registration number for undertaking an economic activity (the *El Registro Único de Contribuyentes*) and the municipal license; by contrast, they did not consider labor formality (contracts, affiliation, minimum wage, and so forth), to be as important (Medvedev and Oviedo 2016).

Figure 2.10 shows that all dimensions of formality—ranging from basic registration to registering workers to being members of a business association and paying dues—are correlated, with high statistical significance, with firm size, consistent with the idea that growing a business requires more “formality inputs.” The demand for these inputs also increases with time in business. The rapid expansion and contraction of microfirms discussed suggests that there is uncertainty around the final size of the firm and the value of formalizing that can be resolved only with time.

The fact that all types of interaction with society, ranging from registering the firm to voluntary association with a business association, increase with income and time in business suggests this pattern is not just driven by a greater likelihood of detection by authorities. Using more recent data, figure 2.11 shows that this increasing pattern is seen in Chile and Colombia as well (Beylis, Cerutti, et al., forthcoming).

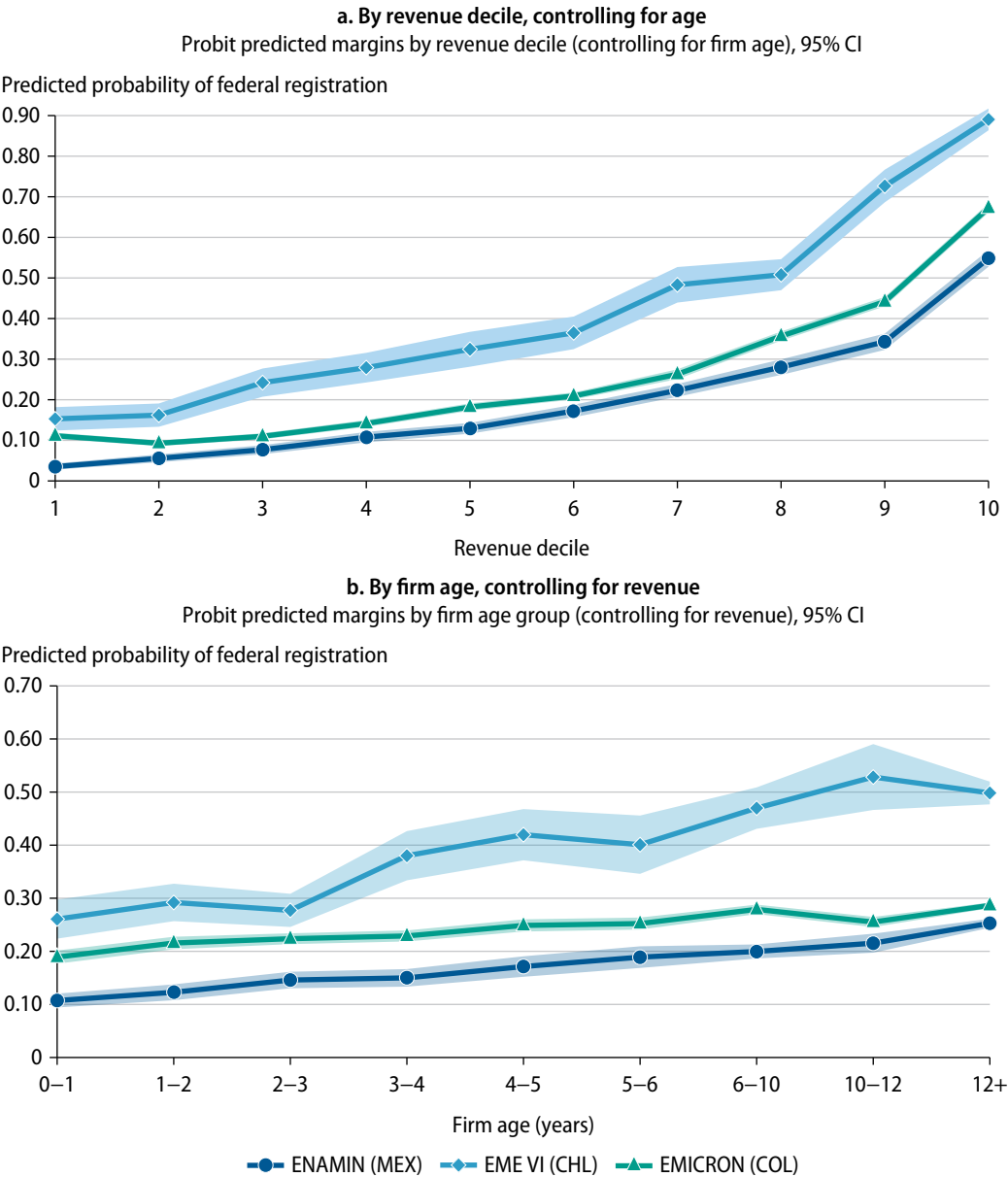
**FIGURE 2.10** The Probability That a Firm Will Participate in an Institution of Civil Society Increases with Size and Age



Source: Levenson and Maloney 1998.

Note: The panels show the semi-elasticity of probability of engaging in each dimension of civil society with a 1 percent increase in firm size or time in business. The points represent average marginal effects from probit regressions. The y-axis shows the estimated effect of log revenues (or years in business) on the probability of registering with each institution. IMSS = Instituto Mexicano de Seguridad Social.

**FIGURE 2.11** Probability of Federal Registration (Chile, Colombia, and Mexico)



Source: World Bank calculations based on Encuesta de Microemprendimiento (EME) VI 2022, for Chile; National Microenterprise Survey (EMICRON), 2024, for Colombia; Encuesta Nacional de Micronegocios (ENAMIN), 2012, for Mexico.

Note: CI = confidence interval.

But the principal reason for not being registered given by the vast majority of microentrepreneurs in Mexico is not that it is too expensive or time consuming to do so (respectively, 2 percent and 8 percent of surveyed firms), nor that the costs of operating as registered businesses are too high (4 percent of firms), but that the firms are too small to make it worth their while

(75 percent) (McKenzie and Woodruff 2006). Hence, though it might be hoped that reducing the cost of formalization will unlock firm growth, the evidence reviewed by Bruhn and McKenzie (2013) suggests that doing so might induce formalization but have little impact on growth.

Specifically, Bruhn and McKenzie (2013) review experimental evidence from Belo Horizonte (Brazil) and Lima (Peru) by Alcázar et al. (2010) and Jaramillo (2009), respectively, that generally supports the view that for many firms, there is no demand for formality at any cost. This view is supported by quasi-experimental evidence presented by Piza (2018),<sup>6</sup> who finds no impact of the SIMPLES regime in Brazil that simplified and reduced registration and costs on growth. More recently, Brazil's Microempreendedor Individual (MEI) program—a simplified, low-cost business registration for small, self-employed firms that provides a tax ID (CNPJ), allows one employee to be hired, and offers social security benefits (INSS) via a low monthly payment—vastly expanded the number of formal firms but had limited effect on job creation (de Farias and Hsu Rocha 2025; Hsu Rocha and de Farias 2021; Rocha et al. 2018). Legal status, such as MEI, versus a limited liability corporation appears to reflect underlying entrepreneurial quality rather than drive it.<sup>7</sup> Hence, in chapter 4, modeling of the sector focuses more on a specific benefit of integration—access to finance—rather than formality per se as a normal good,<sup>8</sup> as well as a key driver of growth. Informal firms, however, face a possible penalty for hiring informal workers.

## Conclusion

This chapter has stressed how similar microfirms in LAC are to those in the United States in terms of entry and exit patterns, increasing labor force share with age, attitude toward credit, and very low steady state size. As in the United States, the objective of these entrepreneurs is not to grow but to enjoy the benefits of flexibility, being their own boss, or other associated amenities. In sum, LAC microfirms show similar reasons for entry and similar growth dynamics, which indicate that mainstream models of firm behavior are germane and no special informal production function should be assumed in modeling.

The substantial evidence that formality does not lead to higher growth suggests that formal or informal status may be largely incidental to the discussion. Most microfirms demand none of the benefits of formalization, and schemes to encourage formalization of low-ability entrepreneurs will have only modest effect on growth.

Hence, from a growth perspective, the action is not concentrated on coaxing growth from the ubiquitous microfirms, but rather on the allocation of labor it implies. In a static sense, the current allocation of informal and formal firms is welfare maximizing—in the less distorted economies, workers are equating utility across sectors. However, the potentially high value the self-employed and microentrepreneurs put on amenities drives a wedge between marginal productivities and implies that allocating more workers to the formal salaried sector would raise overall productivity.

## Notes

1. The share of entrepreneurs in the workforce is measured by the Global Entrepreneurship Monitor. See Maloney et al. (2025).
2. Cited in Maloney (1999).
3. National Microenterprise Survey (EMICRON) for Colombia, <https://microdatos.dane.gov.co/index.php/catalog/central/about>; Survey of Micro-Enterprises (ENAMIN), <https://www.inegi.org.mx/programas/enamin/2012/#microdatos>.
4. Cunningham and Maloney (2001), using the same data employed here, identify several distinct subsectors that differ greatly by, among other characteristics, productivity, demographics, and reason for entry.
5. Other evidence from Mexico using census data suggests that informal firms start smaller than formal firms (2 versus 10 workers) and those surviving 25–39 years grow significantly less than formal firms, expanding 1.8 times versus 2.3 times (Sarikaya et al. 2025).
6. Piza revisits the mixed findings of Monteiro and Assunção (2012) and Fajnzylber et al. (2011) and finds no impact on growth.
7. In a well-specified randomized control trial in Benin measuring the impact of a program to encourage formalization, no impact was found on firm performance and the net impact on government finance was negative (Benhassine et al. 2018).
8. A normal good is one for which demand increases because of an increase in income.

## References

- Alcázar, L., R. Andrade, and M. Jaramillo. 2010. “Panel/Tracer Study on the Impact of Business Facilitation Processes on Microenterprises and Identification of Priorities for Future Business Enabling Environment Projects in Lima, Peru.” IFC evaluation report, World Bank Group.
- Balán, J., H. L. Browning, and E. Jelin. 1973. *Men in a Developing Society*. LLILAS Latin American Monograph Series, University of Texas Press.
- Banerjee, A., E. Duflo, R. Glennerster, and C. Kinnan. 2015. “The Miracle of Microfinance? Evidence from a Randomized Evaluation.” *American Economic Journal: Applied Economics* 7 (1): 22–53. <https://doi.org/10.1257/app.20130533>.
- Benhassine, N., D. McKenzie, V. Pouliquen, and M. Santini. 2018. “Does Inducing Informal Firms to Formalize Make Sense? Experimental Evidence from Benin.” *Journal of Public Economics* 157: 1–14.

- Beylis, G., E. Cerutti, and W. Maloney. Forthcoming. "Formality as an Input in Production: Micro-Entrepreneurship and Informality in Chile, Colombia, and Mexico." Background paper for the study.
- Beylis, G., A. Garin, N. Gonzalez-Prieto, and D. Koustas. 2026. "Valuing Alternative Work Arrangements: Evidence from 7 Countries with High Rates of Informality." Unpublished Policy Research Working Paper, World Bank.
- Beylis, G., W. Maloney, and A. Zambrano. 2026. "Self-Employment and Development: Job Amenities, (Mis)allocation, and Informality." World Bank.
- Bosch, M., and W. F. Maloney. 2010. "Comparative Analysis of Labor Market Dynamics Using Markov Processes: An Application to Informality." *Labour Economics* 17 (4): 621–31.
- Brotherhood, L., D. Da Mata, N. Guner, P. Kircher, and C. Santos. 2024. "Labor Market Regulation and Informality." Working Paper IDB-WP-1646, Inter-American Development Bank.
- Bruhn, M., F. A. Díaz Kalan, N. Fraccaroli, and C. Ruiz Ortega. 2025. "Access to Finance for MSMEs in Ecuador: A Firm-Level Impact Evaluation." Policy Research Working Paper 11121, World Bank. <http://documents.worldbank.org/curated/en/099756505132531755>.
- Bruhn, M., and D. McKenzie. 2013. "Entry Regulation and Formalization of Microenterprises in Developing Countries." Policy Research Working Paper 6507, World Bank. <http://hdl.handle.net/10986/15866>.
- Cunningham, W. V., and W. F. Maloney. 2001. "Heterogeneity Among Mexico's Microenterprises: An Application of Factor and Cluster Analysis." *Economic Development and Cultural Change* 50 (1): 131–56.
- DANE (National Administrative Department of Statistics, Colombia). 2023. Gran Encuesta Integrada de Hogares [Great Integrated Household Survey](GEIH). Microdata. Available at <https://microdatos.dane.gov.co/index.php/catalog/782>.
- De Farias, A. R., and R. Hsu Rocha. 2025. "Formalizing Microentrepreneurs Through Targeted Tax Systems: Evidence from Brazil." Working Paper, University of Southern California and University of California, Berkeley.
- De Paula, Á., and J. Scheinkman. 2007. "The Informal Sector." NBER Working Paper 13486, National Bureau of Economic Research.
- De Soto, H. 1989. *The Other Path: The Invisible Revolution in the Third World*. Translated by June Abbot. Harper and Row; *El otro sendero: La revolución informal*, Instituto Libertad y Democracia.
- Donovan, K., W. J. Lu, and T. Schoellman. 2023. "Labor Market Dynamics and Development." *Quarterly Journal of Economics* 138 (4): 2287–325. <https://doi.org/10.1093/qje/qjad019>.
- Elsby, M. W. L., B. Hobijn, and A. Şahin. 2013. "The Decline of the U.S. Labor Share." *Brookings Papers on Economic Activity* 44 (2): 1–63.
- Evans, D. S., and L. S. Leighton. 1989. "Some Empirical Aspects of Entrepreneurship." *American Economic Review* 79 (3): 519–35.
- Evans, D. S., and B. Jovanovic. 1989. "An Estimated Model of Entrepreneurial Choice Under Liquidity Constraints." *Journal of Political Economy* 97 (4): 808–27.
- Fajnzylber, P., W. Maloney, and G. Montes-Rojas. 2006. "Microenterprise Dynamics in Developing Countries: How Similar Are They to Those in the Industrialized World? Evidence from Mexico." *World Bank Economic Review* 20 (3): 389–419.

- Fajnzylber, P., W. F. Maloney, and G. V. Montes-Rojas. 2011. "Does Formality Improve Micro-Firm Performance? Evidence from the Brazilian SIMPLES Program." *Journal of Development Economics* 94 (2): 262–76.
- Fiess, N. M., M. Fugazza, and W. F. Maloney. 2010. "Informal Self-Employment and Macroeconomic Fluctuations." *Journal of Development Economics* 91 (2): 211–26.
- Flinn, C. J., and J. J. Heckman. 1983. "Are Unemployment and Out of the Labor Force Behaviorally Distinct Labor Force States?" *Journal of Labor Economics* 1 (1): 28–42. <http://www.jstor.org/stable/2534929>.
- Grimm, M., and A. L. Paffhausen. 2015. "Do Interventions Targeted at Micro-Entrepreneurs and Small and Medium-Sized Firms Create Jobs? A Systematic Review of the Evidence for Low- and Middle-Income Countries." *Labour Economics* 32: 67–85.
- Hamilton, B. H. 2000. "Does Entrepreneurship Pay? An Empirical Analysis of the Returns to Self-Employment." *Journal of Political Economy* 108 (3): 604–31.
- Hobijn, B., and A. Sahin. 2009. "Job-Finding and Separation Rates in the OECD." *Economics Letters* 104 (3): 107–11. <https://EconPapers.repec.org/RePEc:eee:ecolet:v:104:y:2009:i:3:p:107-111>.
- Hsu Rocha, R., and A. de Farias. 2021. "Formality Cost, Registration and Development of Microentrepreneurs: Evidence from Brazil." <https://ssrn.com/abstract=3969404>.
- Hurst, E., and B. W. Pugsley. 2011. "What Do Small Businesses Do?" NBER Working Paper 17041, Revised May 2011, National Bureau of Economic Research. <https://doi.org/10.3386/w17041>.
- Iacovone, L., W. F. Maloney, and D. McKenzie. 2019. "Improving Management with Individual and Group-Based Consulting: Results from a Randomized Experiment in Colombia." Policy Research Working Paper 8854, World Bank.
- IBGE (Brazilian Institute of Geography and Statistics). 1990. Pesquisa Nacional por Amostra de Domicílios Contínua [National Household Sample Survey] (PNAD Contínua). Microdata.
- INEGI (National Institute of Statistics and Geography). 2012. National Survey of Micro-Enterprises (ENAMIN). Microdata. Mexico. Available at <https://www.inegi.org.mx/programas/enamin/2012/>.
- Jaramillo, M. 2009. "Is There Demand for Formality Among Informal Firms? Evidence from Microfirms in Downtown Lima." Discussion Paper 12/2009, German Development Institute.
- Johnson, W. R. 1978. "A Theory of Job Shopping." *Quarterly Journal of Economics* 92 (2): 261–78.
- Jovanovic, B. 1979. "Job Matching and the Theory of Turnover." *Journal of Political Economy* 87 (5): 972–90.
- La Porta, R., and A. Shleifer. 2014. "Informality and Development." *Journal of Economic Perspectives* 28 (3): 109–26. <https://doi.org/10.1257/jep.28.3.109>.
- Levenson, A. R., and W. F. Maloney. 1998. "The Informal Sector, Firm Dynamics, and Industrial Participation." Policy Research Working Paper 1988, World Bank Group.
- Loayza, N. V. 1996. "The Economics of the Informal Sector: A Simple Model and Some Empirical Evidence from Latin America." *Carnegie-Rochester Conference Series on Public Policy* 45: 129–62.
- Lucas, R. E., Jr. 1978. "On the Size Distribution of Business Firms." *Bell Journal of Economics* 9 (2): 508–23.

- Maloney, W. F. 1999. "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico." *The World Bank Economic Review* 13 (2): 275–302.
- Maloney, W. F., G. Vuletin, P. Garriga, and R. Morales. 2025. *Transformational Entrepreneurship for Jobs and Growth*. Latin America and the Caribbean Economic Review (October). World Bank. <http://hdl.handle.net/10986/43741>.
- Mandelman, F. S., and G. V. Montes-Rojas. 2009. "Is Self-Employment and Micro-Entrepreneurship a Desired Outcome?" *World Development* 37 (12): 1914–25.
- McKenzie, D., and A. L. Paffhausen. 2019. "Small Firm Death in Developing Countries." *Review of Economics and Statistics* 101 (4): 645–57.
- McKenzie, D. J., and C. Woodruff. 2006. "Do Entry Costs Provide an Empirical Basis for Poverty Traps? Evidence from Mexican Microenterprises." *Economic Development and Cultural Change* 55: 3–42.
- Medvedev, D., and A. M. Oviedo. 2016. "Informality and Profitability: Evidence from a New Firm Survey in Ecuador." *Journal of Development Studies* 52 (3): 412–27.
- Monteiro, J. C. M., and J. J. Assunção. 2012. "Coming Out of the Shadows? Estimating the Impact of Bureaucracy Simplification and Tax Cut on Formality in Brazilian Microenterprises." *Journal of Development Economics* 99 (1): 105–15.
- Montes-Rojas, G. V., and L. Siga. 2009. "On the Nature of Micro-Entrepreneurship: Evidence from Argentina." *Applied Economics* 41 (21): 2667–80.
- Ohnsorge, F., and S. Yu, eds. 2022. *The Long Shadow of Informality: Challenges and Policies*. World Bank.
- Perry, G. E., W. F. Maloney, O. S. Arias, P. Fajnzylber, A. D. Mason, and J. Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. World Bank Latin American and Caribbean Studies. World Bank. <http://documents.worldbank.org/curated/en/326611468163756420>.
- Petrongolo, B., and C. A. Pissarides. 2008. "The Ins and Outs of European Unemployment." *American Economic Review* 98 (2): 256–62.
- Piza, C. 2018. "Out of the Shadows? Revisiting the Impact of the Brazilian SIMPLES Program on Firms' Formalization Rates." *Journal of Development Economics* 134: 125–32.
- Rocha, R., G. Ulyssea, and L. Rachter. 2018. "Do Lower Taxes Reduce Informality? Evidence from Brazil." *Journal of Development Economics* 134: 28–49. <https://doi.org/10.1016/j.jdeveco.2018.04.003>.
- Rud, J. P., and I. Trapeznikova. 2021. "Job Creation and Wages in Least Developed Countries: Evidence from Sub-Saharan Africa." *The Economic Journal* 131 (635): 1331–64. <https://doi.org/10.1093/ej/ueaa110>.
- Samaniego de la Parra, B., and L. Fernández Bujanda. 2024. "Increasing the Cost of Informal Employment: Evidence from Mexico." *American Economic Journal: Applied Economics* 16 (1): 377–411. <https://doi.org/10.1257/app.20200763>.
- Sarikaya, F., N. Tamkoç, and J. Torres. 2025. "Informality and the Life Cycle of Plants." Policy Research Working Paper 11022, World Bank. <http://documents.worldbank.org/curated/en/099352501082542215>.
- Schumpeter, J. A. 1934. *The Theory of Economic Development*. Translated by Redvers Opie. Harvard University Press.



# Informal Workers, Household Optimization, and Labor Market Distortions

## 3

### Introduction

Informal “dependent” workers comprise both salaried and unpaid workers without a labor contract and make up 27 percent of employment in Latin America and the Caribbean (LAC) and 44.5 percent of the informal sector.<sup>1</sup> As shown in the introduction, 75 percent of the dependent workers are employed in microfirms (businesses with five or fewer workers). Hence, their formality status is importantly a result of the formality decisions of those firms. The remaining 25 percent of dependent workers are found in larger firms that are generally registered. The fact that formal firms may combine formal and informal employment relationships reflects strategic evasion for cost minimization.<sup>2</sup>

In both cases, the lack of formal social protections—but also the absence of the agency amenity that the self-employed enjoy—would seem to suggest that the sector conforms to the traditional view of the disadvantaged sector of a segmented labor market: either helping with the family business while unemployed or having to settle for incomplete benefits as an unproven young worker struggling to find a place in the workforce.

However, in practice, the data suggest that workers see the division between the value of formal and informal benefit and amenity packages as less clear cut. In general, the bundle of benefits received by formal workers is far less complete than mandated, while the informal salaried receive numerous benefits. Further, workers value these benefits “on paper” less, and they value some amenities of informality, such as flexibility—especially among women—as much as the self-employed. Though individuals may be informal workers, they may live in families with formal workers and, therefore, are covered. Moreover, the expansion of noncontributory universal benefit programs means that being an informal worker no longer means one is unprotected. Finally, the large differences between how much workers value formal benefits and the costs of those benefits to workers and their employers means that incomplete formality may also emerge from the process of bargaining between employee and employer.

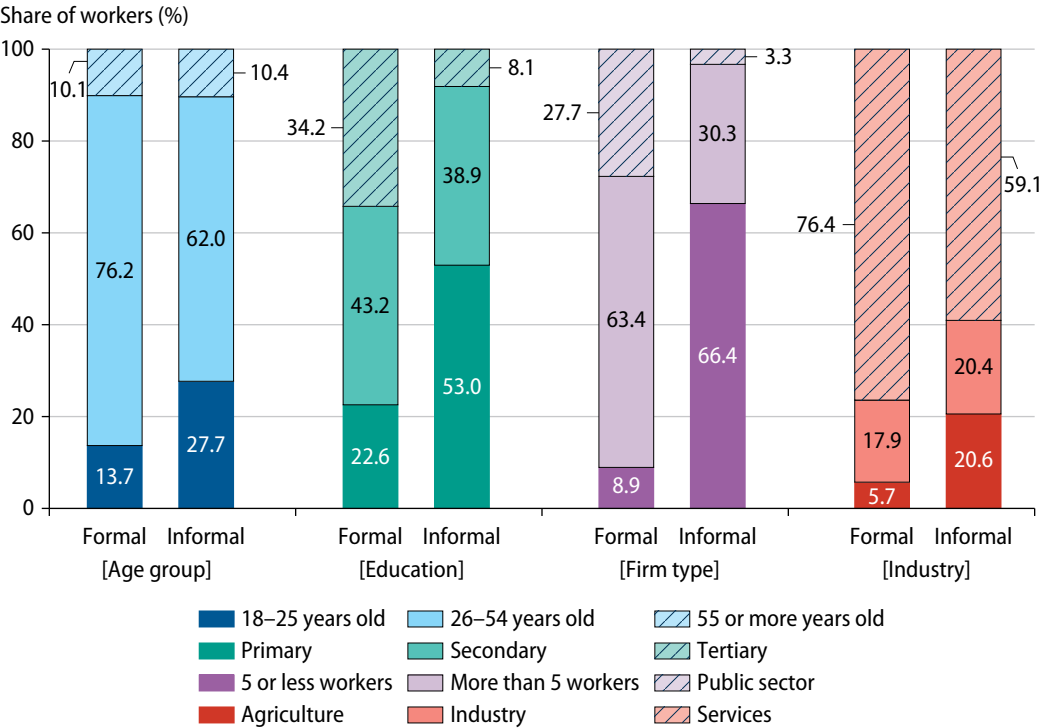
Chapter 3 begins by identifying three types of workers: young workers entering the workforce, using the sector as a stepping stone to other sectors; prime-age workers who show little job attachment; and unpaid workers. The chapter demonstrates the extraordinary fluidity of the sector—workers move in and out of it quickly.

The chapter also shows that, consistent with the traditional view, and unlike the informal self-employed, the size of the sector is correlated with labor market distortions, such as the minimum wage, and appears to have a larger “necessity” component.

### **Who Are the Informal Salaried Workers?**

As documented in the Introduction, informal salaried workers are, on average, younger, less educated, and more likely to be employed in microfirms than formal salaried workers (figure 3.1).

**FIGURE 3.1** Dependent Informal Workers Are Younger, Less Educated, and Work Disproportionally More in Microfirms than Formal Salaried Workers

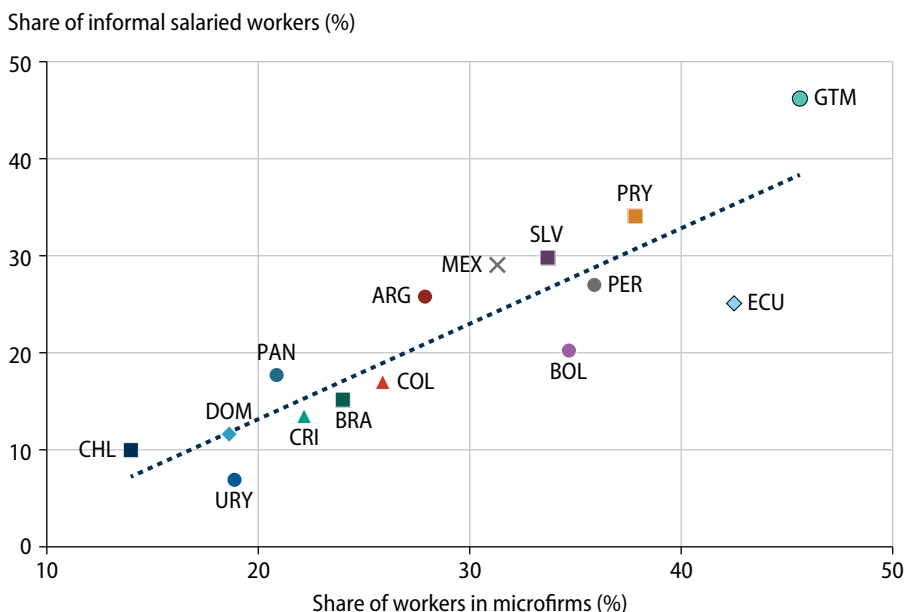


Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.  
Note: Each bar represents an unweighted average across countries in Latin America and the Caribbean. The last year of available data is used for countries without 2023 information in the Socio-Economic Database for Latin America and the Caribbean (SEDLAC): Chile (2022), and Mexico (2024). Each bar sum shows the distribution of formal and informal employed individuals by selected characteristics: age group, education, firm type, and sector. Totals may not sum exactly to 100 percent due to rounding.

### Entry into Informal Salaried Work: Less Opportunity, More Necessity than Self-Employment

The share of informal salaried employment is highly correlated with the share of employment in microfirms in the workforce (figure 3.2), reflecting again how self-employment and microentrepreneurship are the epicenter of informality.

However, as chapter 1 showed, the self-employed clearly enjoy amenities, such as agency, flexibility, being your own boss, and so on, that dependent workers enjoy to a far lesser degree. Emerging but not entirely consistent evidence suggests a substantially higher degree of “necessity” entry compared with self-employment—working for the self-employed for lack of a better option—but nonetheless a sizable share of opportunity entry.

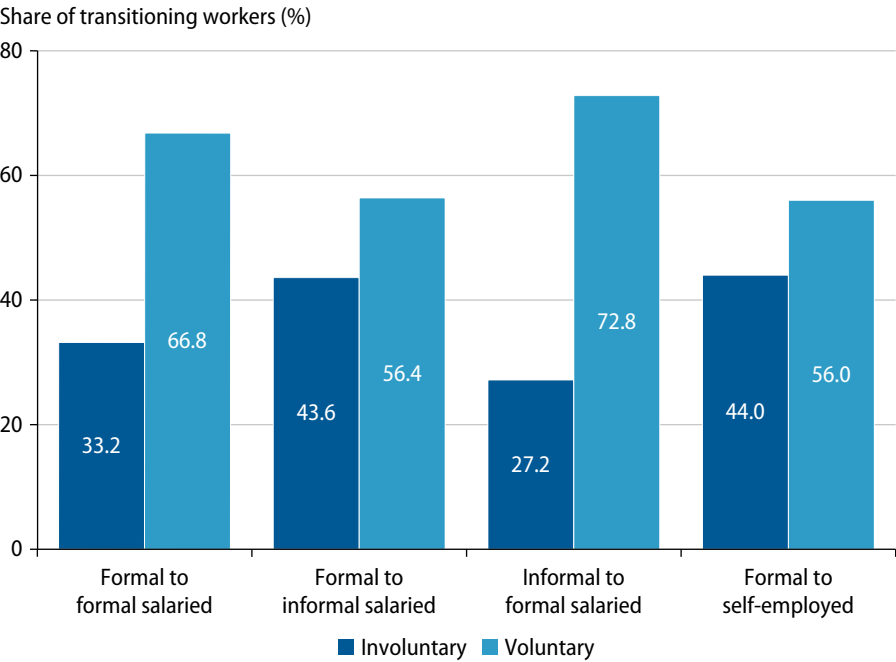
**FIGURE 3.2** Informal Salaried Workers Mostly Work in Microfirms

Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: Each point represents a country-year observation. The horizontal axis shows the percentage of workers in microfirms, which is defined as firms with five or fewer workers. The vertical axis shows the share of informal salaried workers among employed individuals. The dashed line indicates the fitted trend across observations. International Organization of Standardization (ISO) country codes available at <https://www.iso.org/obp/ui/#search>.

Previous work documented relatively high volumes and degree of symmetry between formal salaried employment and informal sectors in Mexico and Brazil, suggesting substantial integration across sectors (Bosch and Maloney 2010; Maloney 1999). Recent motivational data from Mexico confirms that these flows have a high opportunity component in all directions (figure 3.3). As a benchmark, 33 percent of transitions from a formal job to another formal job are reported involuntary, similar to levels for the United States. The rate of involuntary transitions from formal salaried to informal salaried employment (or self-employment) is higher at 44 percent, and much higher than the reverse transition at 27 percent; but it is still well below one-half of entrants.

**FIGURE 3.3** Labor Market Transitions in Mexico for Workers Ages 18–54



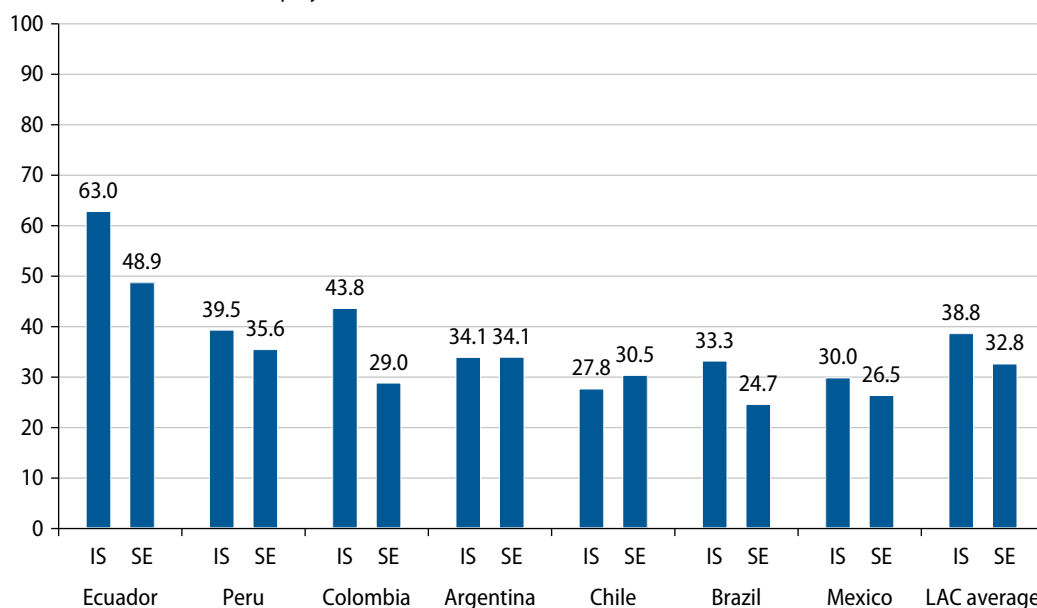
Source: National Survey of Occupation and Employment (ENOE), Household Survey, 2024 (Mexico).  
Note: The figure reports the proportion of job separations by reason (voluntary or involuntary) across transitions between employment states for workers ages 18–54 in Mexico. The approximation of voluntary and involuntary separations is determined on the basis of answers to the following question on the National Survey of Occupation and Employment (ENOE) for Mexico: “Have you ever . . . lost your job or business and had to look for another one?” To construct the transitions, the ENOE variable P9K is used as a proxy: “In that job, did you have access to medical care?” This measure is derived from the respondent’s previous job. Therefore, it can only be established whether the person was formally or informally employed in their previous job. For the final transition, the person’s current employment status is used. This is why transitions can only be made in one direction, that is, only from formal and informal to the other statuses.

Early labor force data from Brazil suggest that far fewer informal salaried workers are in that space for opportunity reasons compared with those in self-employment. Of the Brazil self-employed, more than 69 percent of prime-age male workers and 51 percent of pre-prime-age male workers report they would not prefer to be a formal sector employee (as discussed in chapters 1 and 2). But for the informal salaried in Brazil, the figure falls to 31 percent and 22 percent, respectively, with similar declines for women.

However, the discrete choice experiment (DCE) background surveys ask informal salaried workers if they are actively looking for a formal job or if they prefer to remain in their current job. Relative to the Brazil survey, the average is surprisingly low at 39 percent. Although the question could still admit discouraged workers as “non-searchers,” the regional average is only about 6 percentage points more than the self-employed, where ample other evidence corroborates the fact that the majority are opportunity entrants. There is important variation across countries. In Argentina and Chile, the self-employed and informal salaried appear equally (dis)satisfied, whereas in Colombia (44 percent) and Ecuador (63 percent), two countries with high minimum wages and hence likely segmentation, the gap is roughly 15 percentage points (figure 3.4).

**FIGURE 3.4 Job Satisfaction for Informal Salaried and Self-Employed Workers**

Share of informal and self-employed workers (%)



Source: Beylis et al. 2026.

Note: The figure is constructed from responses to the survey question “Are you actively looking for a formal job, or would you prefer to remain in your current job?” IS = informal salaried; SE = self-employed; LAC = Latin America and the Caribbean.

## What Amenities Do the Informal Salaried Value?

Among the approximately 32 percent of prime-age Brazilian workers in table 3.1 reporting they do not want to be formal, the reasons given are similar to those given by the self-employed (as discussed in chapter 1): 80 percent of men and 61 percent of women report they prefer informal salaried work because of higher earnings or because they are happy with their current job; 20 percent of women prefer the flexibility to manage household tasks.

The DCE data similarly highlight salary and schedule flexibility. Pay-related issues account for 15–19 percent of responses, while up to 30 percent of respondents cited rigid or long hours in formal work. Secondary worries include the clarity of employment contracts (up to 5 percent), independence, commuting, and work environment. In sum, higher earnings and lack of flexibility are the main barriers, with autonomy, commuting times, safety, and family balance as secondary concerns shaping attitudes toward formal employment. The preference for flexibility is supported by the fact that 87 percent of formal salaried workers in the region work more than 40 hours a week, while for informal salaried employment the share is only 66 percent (table 3.2).

**TABLE 3.1** Share of Informal Salaried Workers in Brazil Who Do Not Want to Be Formal Salaried

| Variable                                            | Informal salaried |           |                 |           |
|-----------------------------------------------------|-------------------|-----------|-----------------|-----------|
|                                                     | 18–24 years old   |           | 25–54 years old |           |
|                                                     | Men (%)           | Women (%) | Men (%)         | Women (%) |
| 1. Would not like to be a formal sector employee    | 21.51             | 23.13     | 31.06           | 33.10     |
| 2. Reason for not wanting to be formal              |                   |           |                 |           |
| Earn more in current job                            | 9.14              | 4.06      | 9.70            | 4.32      |
| Competing household chores                          | 0.00              | 6.32      | 0.05            | 20.97     |
| Need time for other activities                      | 4.25              | 6.55      | 3.65            | 6.52      |
| Happy with the current job                          | 73.30             | 72.57     | 69.87           | 57.09     |
| Did not want to undertake requirements to be formal | 8.15              | 6.25      | 10.51           | 7.32      |
| Other                                               | 5.16              | 4.25      | 6.22            | 3.78      |

Source: Original estimates based on Pesquisa Nacional por Amostra de Domicílios 1990, <https://opr.princeton.edu/brazils-national-household-sample-survey#1990>. Data were processed following the structure described in the survey documentation.

Note: The analysis uses the person's module and variables 2,801 and 2,802. Population weights were taken from the 1991 Brazil census. Employment status is defined using variable 2,501 ("Situação de atividade"), and informality corresponds to category "02—emp. s/cart. assinada."

Relatedly, other studies suggest that spatial segregation of formal and informal jobs translates into longer commutes to formal jobs, which—because commuting costs constitute a substantial share of income—leads workers to prefer working close to their homes (Suárez et al. 2015) and to purchase most of their goods and services from local informal firms (Bachas et al. 2024). Ianchovichina and Zárate (2021) find evidence of residential labor market segregation and an urban economy dual in nature in Mexico City, where formal jobs are found in the center of the city, while informal workers tend to live on the periphery of the city (map 3.1).

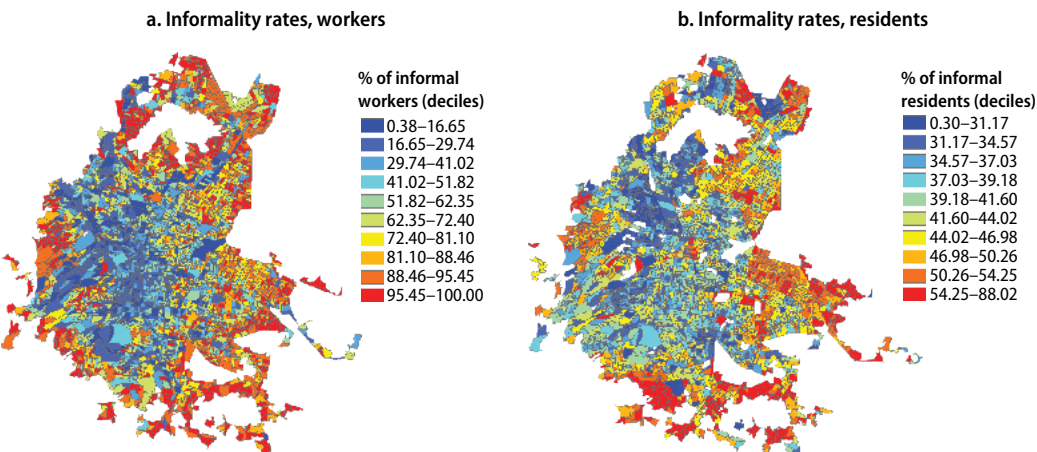
**TABLE 3.2** Distribution of Young Workers

| Variable                                         | Self-employed (%) | Formal salaried (%) | Informal salaried (%) | Unpaid (%) |
|--------------------------------------------------|-------------------|---------------------|-----------------------|------------|
| Share with high school education                 | 32.6              | 41.2                | 34.1                  | 32.2       |
| Share with college education                     | 23.1              | 38.4                | 21.8                  | 22.5       |
| Share living with parents                        | 55.9              | 63.1                | 62.5                  | 77.9       |
| Share self-employed in their family              | 100.0             | 32.8                | 39.5                  | 87.7       |
| Working less than 40 hours                       | 49.5              | 13.4                | 33.7                  | 61.8       |
| Share studying                                   | 21.2              | 26.1                | 24.9                  | 34.9       |
| Share of parents with college education          | 18.9              | 23.3                | 15.3                  | 13.6       |
| Share of the sector for workers ages 18–24 years | 16.5              | 33.8                | 40.4                  | 9.3        |

Source: Original calculations based on SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The table reports the proportion of workers ages 18–24 in different work categories according to educational and family characteristics, working conditions, and parents' educational level. Each column is a simple average of the countries. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024).

**MAP 3.1** Residential Labor Market Segregation in Mexico City



Source: Ianchovichina 2024.

Labor market surveys from Brazil suggest that, among those with less than a high school education, commutes are 25 percent longer for formal workers than for informal workers.<sup>3</sup>

## **The Increasingly Fuzzy Distinction Between Formal and Informal Employment**

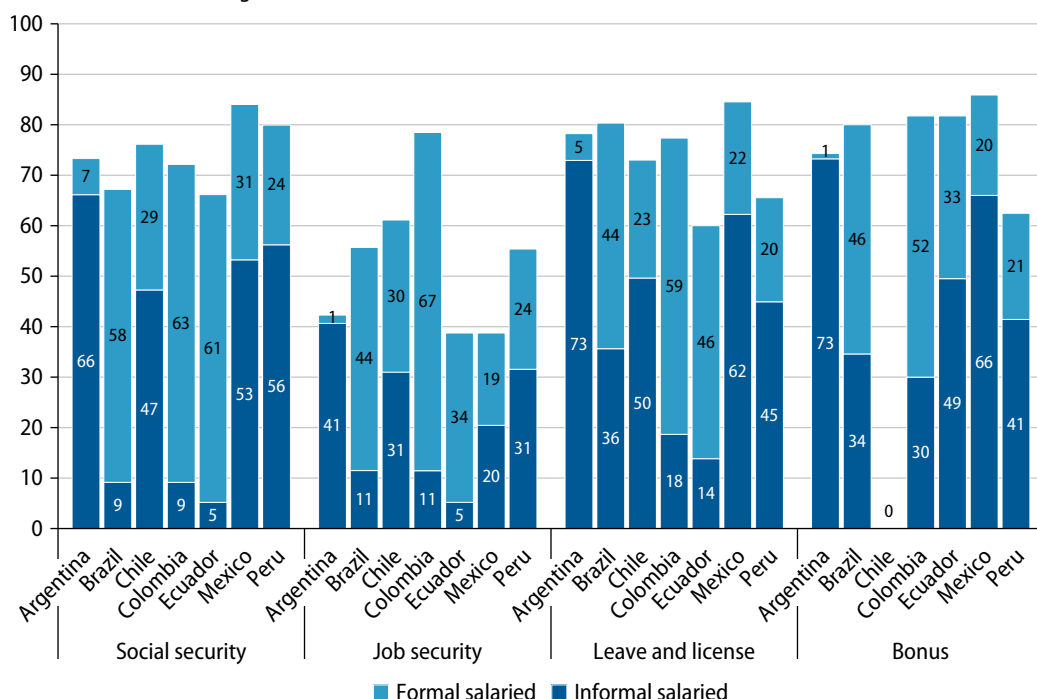
Though much analysis uses enrollment in formal social protection programs and benefits as definitional of job quality and strictly preferred over other modalities of work, workers appear to reject this sharp dichotomy for several reasons: the boundary between job types is fuzzy, that is, informal jobs are reported to offer many benefits and some formal ones offer fewer benefits than mandated; household optimization of income and risk management covers many informal workers; universal/noncontributory programs cover many more workers. In the end, a worker without a signed contract but with access to universal health and pension programs, plus the flexibility to manage household responsibilities, is not obviously in a worse position.

### **Benefits Packages Overlap in the Formal and Informal Sectors**

In the DCE background surveys, workers report two factors that greatly weaken the formal/informal bifurcation. First, formal workers do not necessarily receive the mandated benefits of the formal sector; second, informal workers in fact receive many of those benefits. Figure 3.5 reports the responses to the question: “Under your current contract, do you receive or are you entitled to: ...?” It shows that in some countries, less than one-half of formal workers report receiving compensation for dismissal, sick days, health benefits, or pensions. On the other hand, informal workers get many benefits even in the absence of legal formalization. For decades, the literature has documented a “lighthouse effect” where the minimum wage serves as a wage-setting signal in the informal sector or simply influences earnings across the market through general equilibrium effects (Bosch et al. 2025; Neri et al. 2001; Nunez et al. 2001). But figure 3.5 shows that coverage may be far more extensive. A majority of informal workers in Argentina and Mexico receive a 13th-month salary; more than half report receiving health benefits in Argentina, Mexico, and Peru; about 30 percent report receiving pension benefits in Argentina, Chile, and Peru. Strikingly, the Argentine informal are almost indistinguishable from the formal in degree and scope of benefit coverage. It is not clear what workers understand to be “health benefits,” if they are separating benefits pertaining to their informal job from benefits received from a formal worker in the household, or if they mean universal systems. But in a practical sense that is not important to their choice among sectors.

**FIGURE 3.5 Benefits for Formal and Informal Workers**

Share of workers receiving benefits (%)



Source: Beylis et al. 2026.

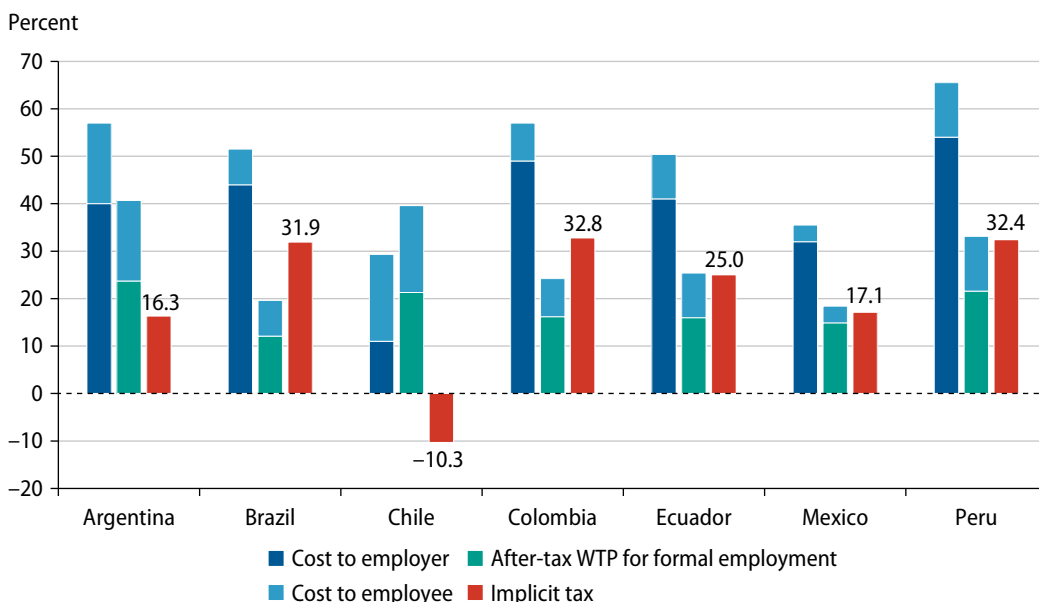
Note: The figure is based on the survey question “Under your current contract, do you receive or are you entitled to: ...?” Figure reports attributes that are common across countries. Social security includes health and/or pension benefits, depending on each country’s institutional context. The dark blue bar shows the share of informal salaried workers who report receiving the benefit. The light blue segment (and corresponding values) represents the gap with formal workers, so the total height of the bars reflects the share of formal salaried workers who report receiving the benefit. Chile records zero for bonuses because this benefit was not surveyed, as it is not mandatory.

### ***Workers appear not to fully value formal benefits***

As discussed in chapter 1 of this volume, greater efforts are being made to quantify the value of various amenities and benefits using discrete choice experiments (for example, Beylis et al. 2026; Fietz 2025). These efforts reveal that, in particular, informal workers value amenities highly and value formal benefits less than their cost.

In a recent study of women in rural and peri-urban El Salvador (Contreras et al. 2026), respondents reported being willing to pay on the order of about 37 percent of earnings for access to childcare and about 53 percent of earnings for jobs with reduced entry barriers, such as not requiring prior work experience, but very little of their earnings for formal sector benefits.

The DCEs done for this volume (Beylis et al. 2026) suggest a substantial misalignment of the valuation of benefits and cost of provision. In figure 3.6, the dark blue bar in the first column for each country reports employers’ cost of providing benefits, ranging from 11 percent in Chile to more than

**FIGURE 3.6** Implicit Tax on Formality

Source: World Bank calculations based on employer nonwage labor costs obtained from the labor legislation of each country; WTP estimates from Beylis et al. 2026.

Note: Graph reflects the minimum cost corresponding to a minimum wage earner (costs vary by factors such as professional risk classification). The implicit tax is estimated as the cost to the firm minus willingness to pay for a formal salaried job by an informal salaried worker. WTP = willingness to pay.

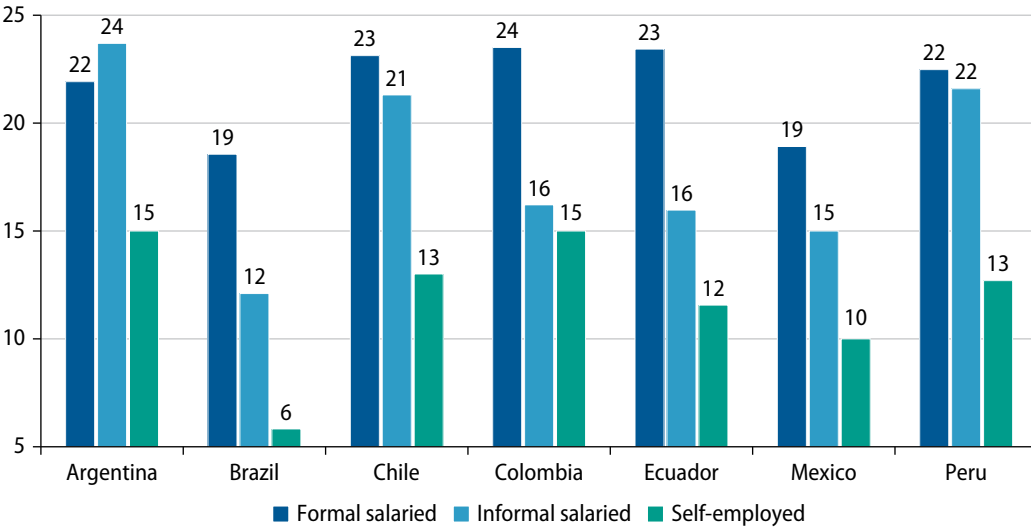
60 percent in Peru. This is substantially higher than workers' willingness to pay (WTP) for those benefits (net of workers' contribution and taxes), which leads to an implicit "tax" of about 32 percent in Brazil, Colombia, and Peru; only in Chile is it negative. Who pays this tax, as usual, depends on relative labor supply and demand elasticities, as well as downward wage rigidities caused by, for instance, minimum wages. At the extremes, if wages adjust downward completely, workers wind up paying the tax and this constitutes a major incentive to informality. If, however, the burden falls on the firm, it is effectively an additional 30 percent tax on the wage bill (on already high-tax countries) that at conventional demand elasticities (around 0.5) would sharply reduce labor demand.

### ***Selection reflects worker valuations***

Workers' selection of sectors appears to reflect their valuations. In the DCE sample, workers already in formal employment show the highest WTP for maintaining formality (figure 3.7). Consistent with chapters 1 and 2, the self-employed put a much lower valuation on formal employment: in Brazil, self-employed workers value formal jobs at 6 percent of their earnings, one-eighth of the value formal workers put on them; in other countries it falls to between one-half and two-thirds. The informal salaried are closer—in

**FIGURE 3.7 Willingness to Pay for Formal Jobs**

Share of earnings (%)



Source: Beylis et al. 2026.

Note: Willingness to pay is the share of earnings an informal worker is willing to forgo to get a formal job relative to the earnings that the worker would get as an informal salaried. The numbers are from the unweighted sample.

Argentina, Chile, and Peru, they place about the same valuation on formal benefits. However, workers in Colombia, Ecuador, and Mexico show a one-quarter to one-third discount. Given that the informal salaried lack the agency amenity of being your own boss, it is not so surprising that in Argentina, Chile, and Peru, WTP is about one-third lower.

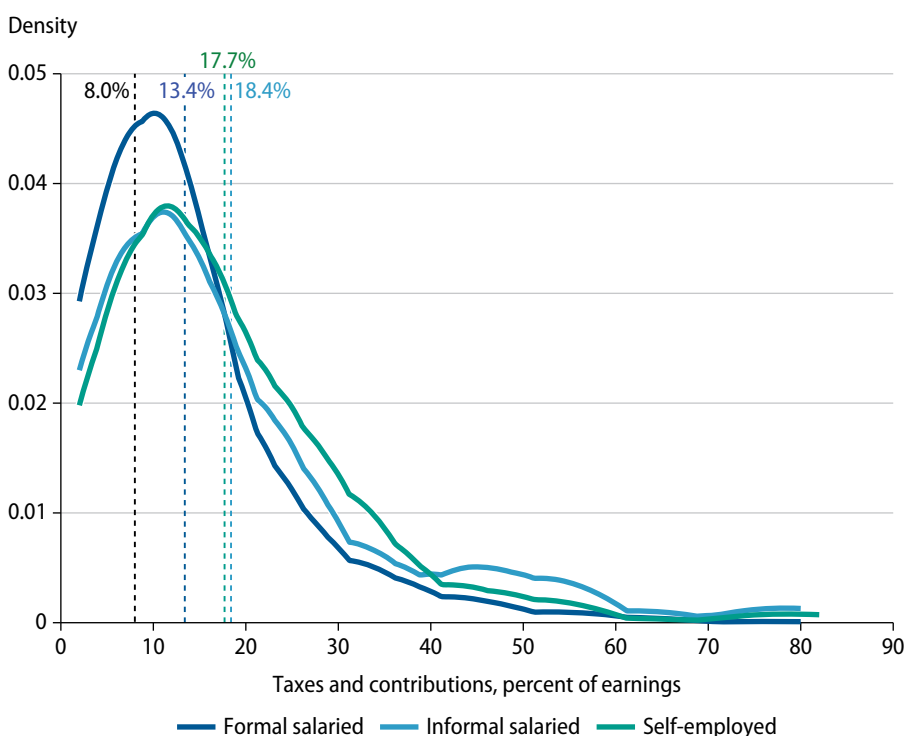
### Information and Sectoral Choice

The low valuation placed on formality may stem from information problems. For example, studies from developed countries have documented underestimation of the cost of being self-employed (Freeland et al. 2026). Evidence from developing countries is very sparse. Survey data from Colombia reveal a substantial misestimation of the payroll deductions from gross salary accompanying formality (figure 3.8), which by law is 8 percent.<sup>4</sup> However, only 10.6 percent of workers appear to believe this—the vast majority of workers think they are substantially higher. Formal workers overestimate them by about 70 percent; self-employed and informal salaried workers estimate them to be more than twice as much (2.3 times).

The DCE analysis attempts to tease out how much of this is an information problem, how much may be true, and to what extent policies to increase information can alter workers' calculations.

Analogous to the Colombian case, workers' expectations of receiving the full bundle of mandated benefits fall systematically short of this benchmark in all seven countries. Even for core entitlements—such as social security, paid leave, dismissal protection, and 13th salary—expected coverage typically ranges between 60 percent and 80 percent. Dismissal protection is the most heavily discounted entitlement, with expected coverage often near 55–60 percent. More visible benefits, such as paid leave or the 13th-month salary, are expected more reliably, but they are still far from universally expected. Importantly, these expectation gaps mirror reported outcomes: Formal respondents not infrequently claim to receive less than the mandated benefits. Together, these patterns indicate that workers' valuations of formality are shaped less by statutory design and more by an anticipated and seemingly well-understood gap between legal rights and effective delivery (Beylis et al. 2026). Hence, the problem is not entirely one of information. To gain a more precise view, in the survey, one-half the respondents were randomly exposed to a detailed information intervention

**FIGURE 3.8 Actual and Expected Costs of Formality in Colombia**



Source: Original calculations based on data in Beylis et al. 2026.

Note: The 1st and 99th percentiles are excluded. The question on occupation and previous employment with a formal contract (with health and pension affiliation) is used to categorize employment status. The colored vertical lines correspond to the average value for each employment status. The line at 8 percent represents the statutory social security rate for those with no tax withholdings (87 percent of the sample).

explaining the benefits that formal salaried jobs are legally required to provide. This intervention had no effect on expected benefit coverage: treated workers continued to assign probabilities far below 100 percent to the same mandated benefits. This result rules out simple lack of information about the law as the primary explanation for the expectation gap. Instead, it suggests that workers understand the legal framework but consciously discount it based on beliefs about enforcement, firm behavior, and observed labor market outcomes. From a policy perspective, improving information alone is unlikely to raise the perceived value of formal employment. Without credible enforcement and visible compliance, legally defined benefits do not fully translate into job quality—and workers make their choices accordingly.

### **Household Decisions, Unpaid Work, and Universal Social Protection Coverage**

Another reason informal workers may value benefits less is because they live in families and, therefore, focusing on the informal *individual* misses the fact that sectoral choices are part of a household optimization, both in terms of production and in terms of social protection (see, for instance, Chioda 2011). This is well known in advanced economies and applies to developing countries as well. If a man holds a formal job that offers limited flexibility, it may make sense for his wife to be out of the formal labor force, to work in informal jobs that offer flexibility, or to be part-time self-employed to balance home responsibilities while covered by her husband's insurance. Young people entering the labor force may still be covered by parents' health care and hence be able to take on apprenticeships or entry-level jobs without benefits.

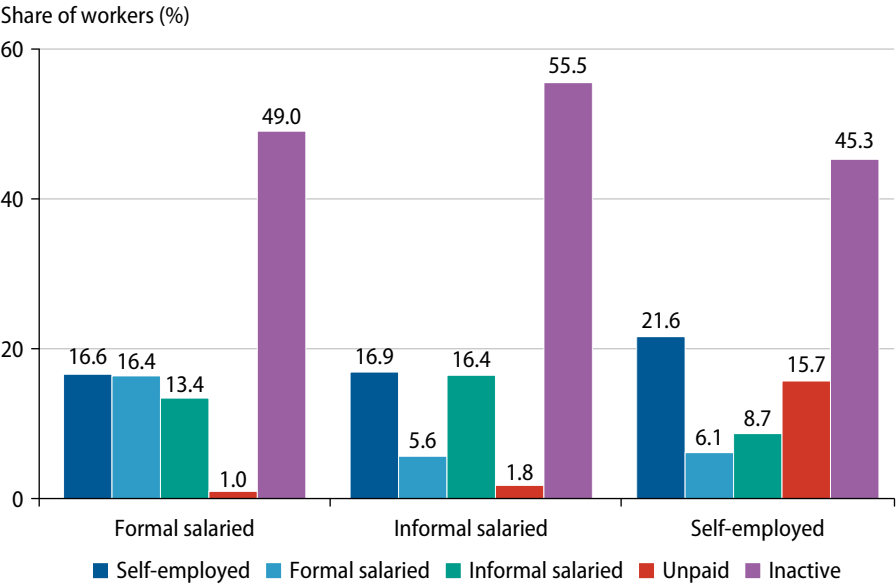
Almost by definition, mom-and-pop firms rely on family labor, which is flexible and reliable and largely obviates the need for either the labor law or courts that formality will bring. On the other hand, if one family member is starting up a microfirm, it may be rational to diversify risk by having a family member in more stable formal employment that would also provide the entire family with medical care coverage (González de la Rocha 1994). By the same logic, it makes no sense for two members of a family to work in formal employment and implicitly or explicitly pay health premiums that cover the whole family twice (Frölich et al. 2014; Maloney 1999). Ideally, both a worker's modality and state of social protection would be viewed in a family context.

Couples with the same education level show diversification in the spouse's sector, with choosing their occupations jointly. Figure 3.9 shows how for families with both the head and spouse having a primary level of education,

the spouse has a very high chance of being inactive. But almost 70 percent of working spouses are informal, far more than the share of the informal in the workforce—they likely have more flexibility but are still covered. By contrast, in families with informal heads, the working spouse also tends to be informal. This may reflect the constraints placed on women as the main caregivers, or the common problems of accessing formal employment, or even the existence of publicly funded health systems and other benefits for people with low formal incomes.

Table 3.3 shows, first, that of the 61 percent of informal workers who are married, 22 percent of those workers in some countries—up to 32 percent in other countries—report being covered by their spouse, which implies that about 7 percent of the total workforce that seemed uncovered is, in fact, covered. Adding in coverage from universal programs that have expanded over the past decades implies that in much of the region, the share of married informal workers with health coverage is quite high, reaching 100 percent in Brazil and 91 percent in Colombia in spite of formality rates of 38 percent and 63 percent, respectively, among this group.<sup>5</sup>

**FIGURE 3.9 Spouse Occupation Conditional on Head of Household Occupation (Primary Education Households)**



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: Each bar is an unweighted average of the country-level data. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024). The figure shows the occupation of the spouse conditional on the occupation of the head of household, restricting the sample to couples in which both partners have primary education.

**TABLE 3.3 Benefits and Characteristic of Informal Workers who are Married**

| Country                   | Share of Informal Workers Among All Married Workers | Share of informal workers with spouse (%) |                        |                              |
|---------------------------|-----------------------------------------------------|-------------------------------------------|------------------------|------------------------------|
|                           |                                                     | Receive health coverage                   | Receive cash transfers | Spouse has formal employment |
| <b>Argentina</b>          | 55.5                                                | 49.8                                      | 13.3                   | 31.5                         |
| <b>Bolivia</b>            | 84.0                                                | 84.2                                      | 13.0                   | 14.5                         |
| <b>Brazil<sup>a</sup></b> | 37.7                                                | 100.0                                     | 14.2                   | 23.2                         |
| <b>Chile</b>              | 32.4                                                | 90.7                                      | 23.6                   | 20.9                         |
| <b>Colombia</b>           | 63.1                                                | 91.2                                      | 30.2                   | 20.8                         |
| <b>Costa Rica</b>         | 33.9                                                | 53.6                                      | 1.6                    | 24.3                         |
| <b>Dominican Republic</b> | 64.8                                                | 69.0                                      | 19.0                   | 32.0                         |
| <b>Ecuador</b>            | 71.4                                                | 0.7                                       | 13.0                   | 18.0                         |
| <b>El Salvador</b>        | 76.1                                                | 10.8                                      | 0.4                    | 22.6                         |
| <b>Guatemala</b>          | 88.2                                                | 5.2                                       | 40.8                   | 14.0                         |
| <b>Mexico<sup>b</sup></b> | 68.3                                                | —                                         | —                      | 30.4                         |
| <b>Panama</b>             | 59.5                                                | 16.5                                      | 8.5                    | 26.3                         |
| <b>Paraguay</b>           | 79.4                                                | 13.7                                      | 3.3                    | 21.6                         |
| <b>Peru</b>               | 82.4                                                | 85.6                                      | 20.1                   | 19.5                         |
| <b>Uruguay</b>            | 22.8                                                | 45.5                                      | 18.3                   | 19.7                         |
| <b>LAC<sup>c</sup></b>    | 61.3                                                | 51.2                                      | 15.7                   | 22.6                         |

Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The universe for the first column comprises all workers with a spouse. For all subsequent columns, the universe is restricted to informal workers with a spouse. The sample used in this table is restricted to households in which the presence of a head of household and their spouse is observed. Health coverage reflects reported affiliation/insurance coverage in the underlying household surveys and does not fully capture access to services provided outside formal insurance arrangements. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022) and Mexico (2024). LAC = Latin America and the Caribbean; — = not available.

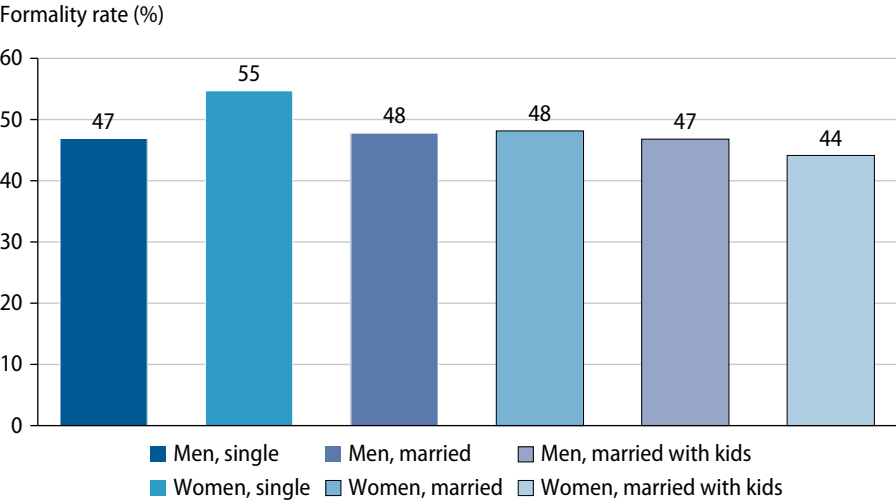
a. The health coverage variable is not available for Brazil. However, given that the country has a universal health system—Sistema Único de Saúde, which guarantees free access to health services for the entire population—100 percent coverage is assumed.

b. For Mexico, the National Survey of Occupation and Employment (source of this data) does not include variables for health coverage or transfers.

c. Data for LAC is presented as the simple average.

Formality decisions are clearly affected by joint household decisions. When single, women show higher formality rates by 6 percentage points compared with men—until family responsibilities impinge (figure 3.10). However, once married, female and male rates equalize and then with the arrival of children, male rates become 2 percentage points more formal and female rates become 1 percentage point less formal. This pattern shifts the gender formality gap from issues of labor market discrimination toward the same considerations driving differentials in labor market participation—motherhood has a negative effect on the employment rate and changes the occupational structure toward more flexible jobs and less formal employment (Berniell et al. 2023).

**FIGURE 3.10** Effect of Marriage and Motherhood on the Formal Employment of Women



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

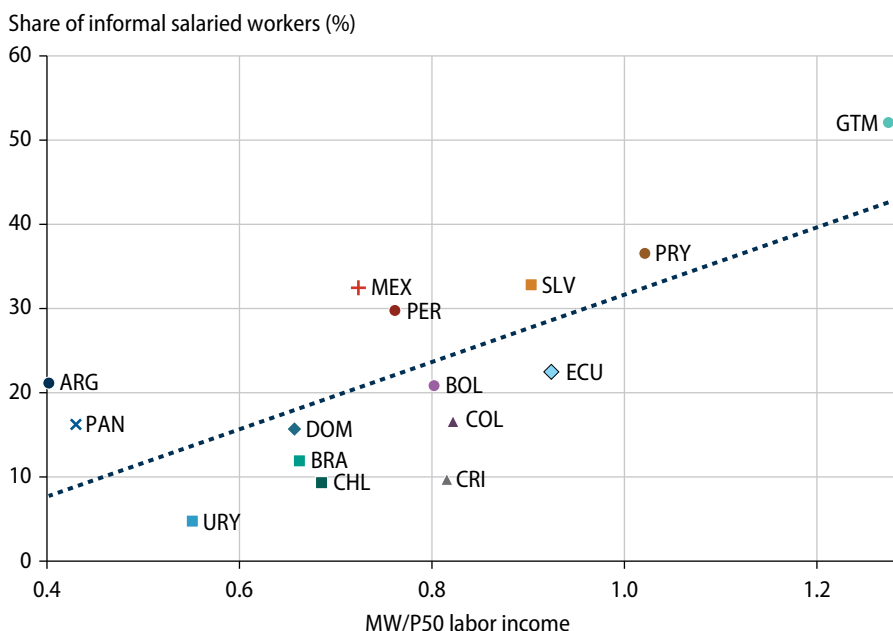
Note: The figure shows formality by gender and marital status. Each bar is an unweighted average of the country-level data. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024).

### Labor Market Frictions and Necessity Informality

In the previous discussion, the informal salaried, like their self-employed bosses, are comparing the amenity value and earnings across sectors in a standard sectoral choice model. However, the lower share of voluntary entry, the concentration among the very young, and short job tenure suggest a larger necessity component that is likely driven by labor market rigidities.

Chapter 1 showed no relationship between the participation of self-employed in the workforce and measured labor market distortions. However, this is not true for the informal salaried. Though a large body of evidence shows that, at moderate levels, minimum wages can increase wages without reducing employment (Cunningham 2007; Maloney et al. 2024; Neumark and Wohl 2026), as the minimum wage rises, demand for labor in the formal sector may fall. This is particularly likely to be the case for workers with less education who are found in informality and whose productivity is likely to fall below the minimum wage. The minimum wage, and other regulations it proxies for, such as high firing costs, may also raise the cost of employers experimenting by hiring young workers, whose productivity level has not been revealed yet or who require substantial on-the-job training (Gonzalez-Prieto and Oue, forthcoming). This can delay entry of young workers into the formal sector and accentuate the stepping-stone role of

**FIGURE 3.11 Relationship Between Minimum Wage and the Share of Informal Salaried Workers**



Source: Original compilation of minimum wage data; SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022) and Mexico (2024). The vertical axis shows the share of informal salaried workers. The horizontal axis shows the ratio of minimum wage (MW) to the median (P50) monthly labor income for each country. The dashed line indicates the fitted trend across countries. International Organization of Standardization (ISO) country codes available at <https://www.iso.org/obp/ui/#search>.

informal salaried employment, perhaps as a way of generating a track record or simply as a refuge pending advancement in the queue.

Figure 3.11 shows a significant relationship between the minimum wage as a share of the median wage (also known as the Kaitz index) and the share of informal salaried in the workforce. Arguably, raising the cost of hiring workers above the productivity of the marginal workers rations them into informal salaried employment or low-productivity self-employment—or even into unemployment.

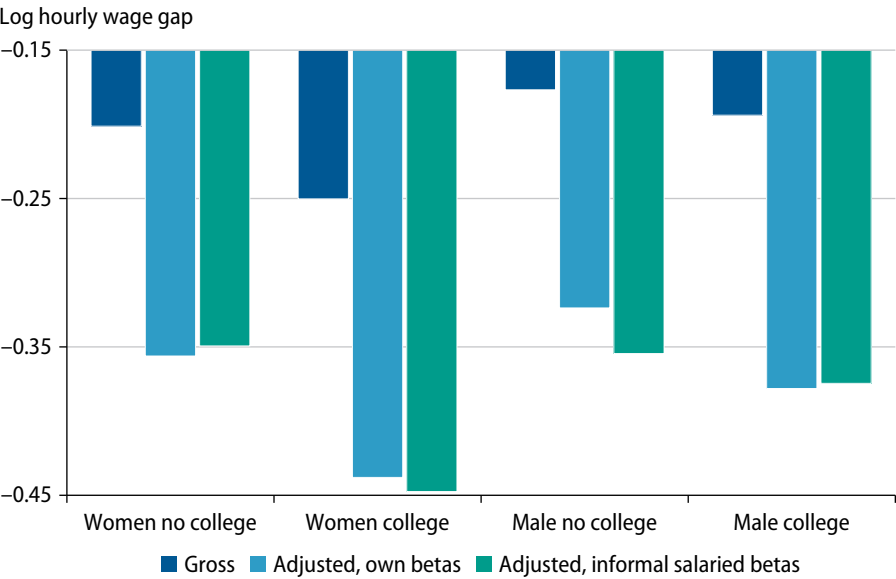
### Amenity-Adjusted Wage Comparisons as a Measure of Segmentation

Figure 1.4 in chapter 1 showed that, though in most countries formal salaried work sometimes enjoys a premium over informal self-employment, once adjusted for the value of amenities and the costs of formal benefits that workers pay for out of their earnings, the self-employed usually enjoy a

“utility” premium. Figure 3.12 suggests this is not the case for the informal salaried. In every category, the formal salaried wage premium is at least 15 percent, and then the relative valuation of amenities pushed the adjusted earnings gap to between 35 percent and 45 percent. This suggests that, while 30–70 percent—depending on the survey—report not looking for another job, there are likely nominal rigidities segmenting the market and prohibiting these low-skilled workers from entering formal employment. Referring back to figure 3.6, this suggests that, on average, firms are not able to pass down the tax to workers but are rather simply restricting hiring.

In sum, informal workers often value flexibility but they value formal sector benefits less than formal workers do, either because of family optimization considerations, universal social programs, or information asymmetries. Though the evidence is imperfect and not always consistent, perhaps half of the informal salaried report entering voluntarily or for opportunity. However, unlike the self-employed, it is clear that there is a large share entering for necessity and for being rationed out by minimum wages that are high relative to their productivity. The next section discusses the distinct subgroups of informal dependent workers and examines how each of these factors plays out in finding workers there.

**FIGURE 3.12   Amenity-Adjusted Earnings Gaps for Informal Salaried Workers Ages 18–54 Years, by Gender and Education**



Source: Beylis et al. 2026.

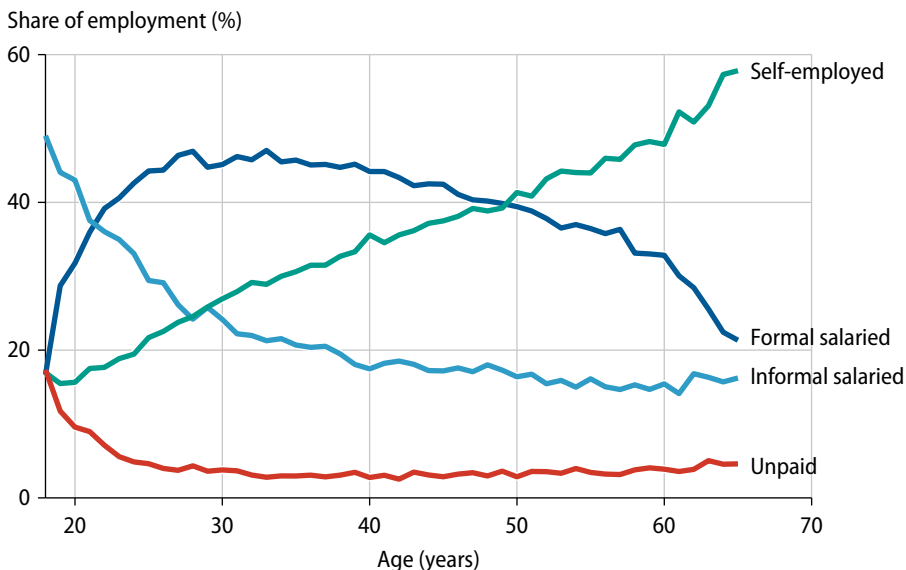
Note: “Gross” refers to the gross log wage gap. “Adj: own betas” refers to adjusting wages using coefficients estimated separately for each worker type (informal salaried workers use informal salaried WTP coefficients, while formal salaried workers use formal salaried WTP coefficients). “Adj: IS betas” refers to adjusting wages for both groups using coefficients estimated for informal salaried workers only. WTP = willingness to pay.

## Typology of the Dependent Informal

Informal workers can be divided into four broad and overlapping subsets, each with a particular logic that combines the previous rationales in different measures. Among those workers earning wages, there is a young group that appears to be using the sector as a stepping stone to better options and a prime-age group that shows slightly longer—but still short—job attachment and seemingly corresponds most to the standard view of the sector. While most of these work for microfirms, a minority are employed in firms with more than 50 workers. Finally, there are the unpaid, nominally neither protected nor paid, whose logic is entirely tied to working in family enterprises.

As figure 3.13 shows, at ages 18–20, nearly half of employed youth are in informal salaried positions, while unpaid work accounts for about another 15 percent. These labor arrangements appear to be facilitating entry into the labor market for young inexperienced individuals. Both categories decline sharply with age, coinciding with the rapid rise of formal salaried employment, which absorbs many of these workers as they gain experience and productivity. However, informal salaried employment does not disappear (figure 3.13); it stabilizes at about 20 percent of total employment throughout prime working ages, indicating the presence of other potential drivers.

**FIGURE 3.13** Sectoral Composition Across the Life Cycle



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

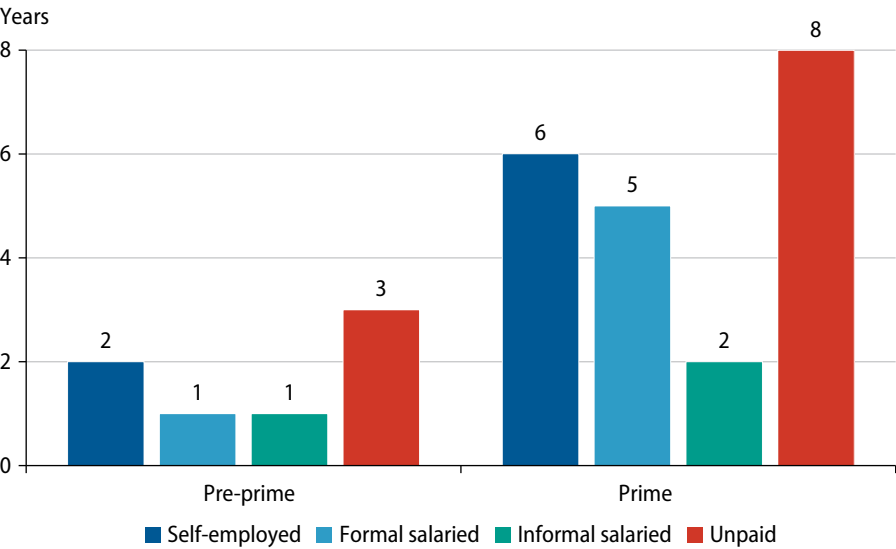
Note: Each point represents an unweighted average across countries. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024). For each age, the four categories sum up to 100 percent.

A Stepping Stone to More Desired Sectors for the Young

As discussed previously, informal salaried work is highest among the very young (figure 3.13). Looking at the tenure profile by age groups (figure 3.14) it is clear that pre-prime-age paid workers are in a fluid process of experimentation and establishing themselves with frequent transitions between jobs. The tenure for both informal salaried employment and formal salaried employment is similar and short—about one year—and in self-employment it is two years. The tenure for both informal salaried employment and formal salaried employment is similar and short—about one year—and in self-employment it is two years.

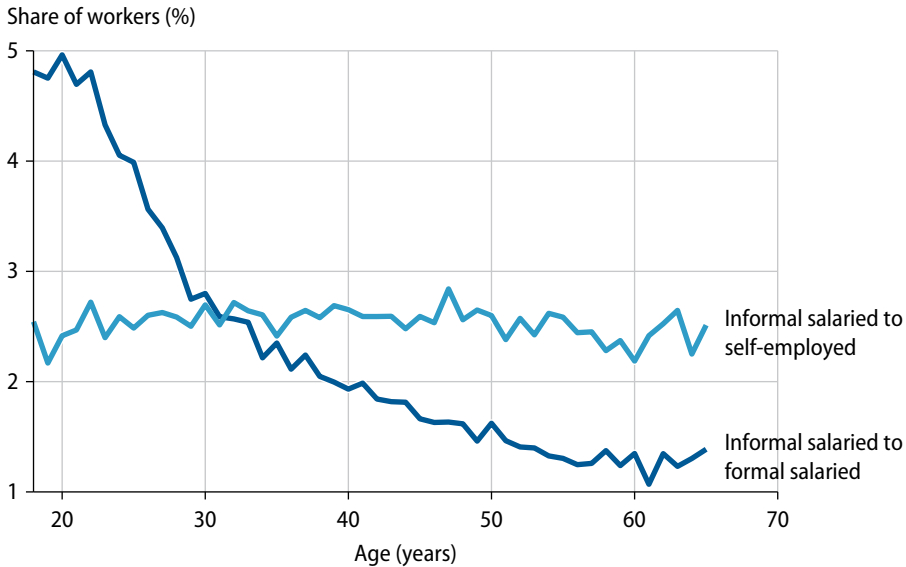
However, informal salaried work is not the destination and most will soon transition to formal salaried employment or, to a lesser degree, self-employment at an early age (figure 3.15). The pattern is consistent across LAC, but the importance of informal salaried employment as a stepping stone varies widely. For example, in Uruguay, the rate of informal salaried employment goes from 39 percent at age 18 to 10 percent at age 30, whereas in Guatemala, the corresponding percentages are 69 percent and 50 percent.

FIGURE 3.14 Tenure of Current Job, by Sector and Age Group



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: Each bar is a simple average of the countries. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024). Pre-prime = 18–24 years old; prime = 25–54 years old.

**FIGURE 3.15** Transition to Different Employment Categories, by Age

Source: Gonzalez-Prieto and Oue, forthcoming.

Note: Each line represents the unweighted average across countries. The dark blue line shows the share of informal salaried workers transitioning to formal salaried employment as a share of employment. The light blue line shows the same calculation for transitions from informal salaried to self-employment. The following countries and years are included: Argentina (1998–2021), Bolivia (2015–21), Brazil (2002–23), Chile (1996–2021), Colombia (2008–21), Costa Rica (2001–21), Ecuador (2007–21), El Salvador (2010–21), Mexico (2005–23), Paraguay (2016–21), Peru (2004–21), and Uruguay (2006–21).

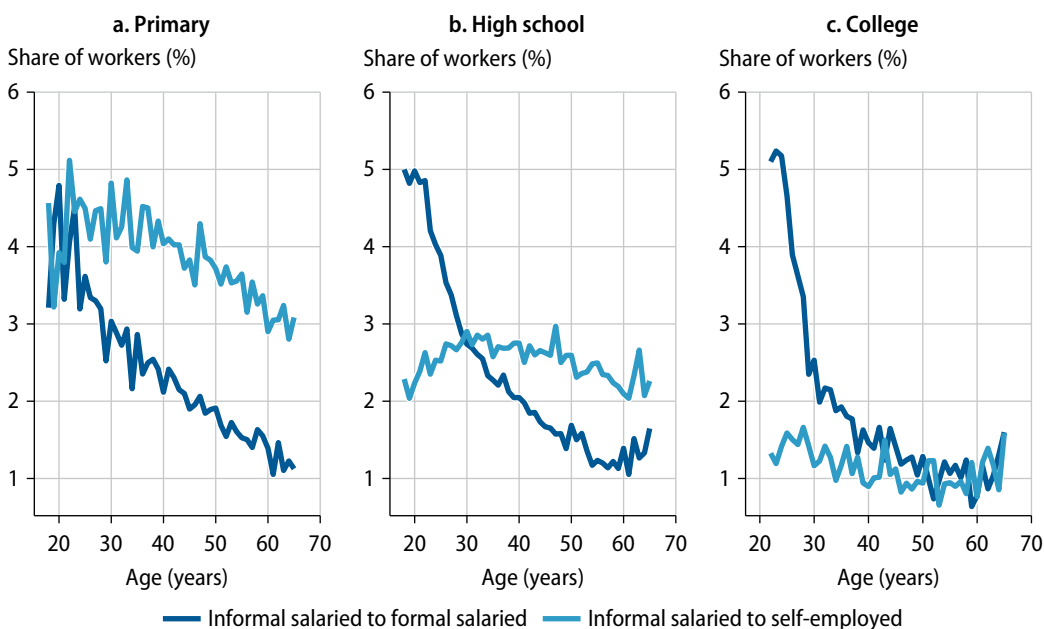
The transition patterns for the average LAC country<sup>6</sup> show that more than 4 percent of employment transitions from informal salaried employment to formal salaried employment occur at age 18, but the transition rate declines rapidly and reaches 2 percent by age 35. On the other hand, the transition from informal salaried employment to self-employment seems to be very stable over age: 2.5 percent of informal salaried workers transition to self-employment, perhaps modulated by the need to accumulate capital, as discussed in chapter 2.

Workers with elementary or high school education transition more to self-employment overall, while college graduates transition to formal salaried employment (figure 3.16). Transitions from informal salaried employment to formal salaried employment are 20 percent lower for workers with primary education compared with those with high school or college education, suggesting that these workers either lack the skills for formal employment or, alternatively, face social or locational obstacles that impede matching. For workers with only primary education, transitions into both self-employment and formal salaried jobs are similar during youth. However,

when they reach prime age, transitions from informal salaried employment tend to favor self-employment. This is consistent with previous findings of self-employment being concentrated among the less educated, likely because of a lower opportunity cost of self-employment or, alternatively, a comparative advantage for self-employment.

For those with a high school education, informal salaried employment often serves as a stepping stone to formal salaried employment, but after age 30, transitions increasingly shift toward self-employment. Finally, workers with college degrees show a strong and brief transition from informal salaried employment to formal salaried employment: more than 5 percent of 18-year-olds who are employed move from informal salaried employment to formal salaried employment, but by age 30, this rate drops below 2 percent. Among the most educated, the likelihood of transitioning from informal salaried employment to self-employment is low.

**FIGURE 3.16** Transition to Different Employment Categories, by Education



Source: Gonzalez-Prieto and Que, forthcoming.

Note: Each line represents the unweighted average across countries as a share of employment. The dark blue line shows the share of informal salaried workers transitioning to formal salaried employment. The light blue line shows the same calculation for transitions from informal salaried to self-employment. The following countries and years are included: Argentina (1998–2021), Bolivia (2015–21), Brazil (2002–23), Chile (1996–2021), Colombia (2008–21), Costa Rica (2001–21), Ecuador (2007–21), El Salvador (2010–21), Mexico (2005–23), Paraguay (2016–21), Peru (2004–21), and Uruguay (2006–21).

### Prime-Age Informal Salaried

Figure 3.13 shows that the share of informal salaried in the workforce declines sharply with age in the pre-prime-age group, but then stabilizes to about 20 percent of the prime-age workforce. Unlike the other sectors, tenure remains short, suggesting weak job attachment and frequent ping-ponging between formal and informal jobs (Maloney 1999). Even within this group there are subsectors. Of these subsectors, 67 percent are working in microfirms of less than five workers and only 6 percent are working in firms of more than 50 workers. However, there is a striking difference in educational attainment by firm size (table 3.4): of those working in microfirms, 7 percent have tertiary education, whereas of those working in firms of more than 50 people, 23 percent have tertiary education. This is still below the 33 percent average for the prime-age workers in general, again suggesting that skills are the key factor defining worker sorting among sectors: working in a large firm informally is the best that modestly skilled workers can achieve and working in a microenterprise is the best that very low-skill workers can do.

Prime-age self-employed workers have longer tenures in self-employment (six years), followed by formal salaried employment (five years), but the informal salaried only doubles to two years. Though some sociological studies have stressed the low labor attachment of those in this group, and even their appreciation to be able to pick up, drop, or combine

**TABLE 3.4 Informal Salaried Prime-Age Workers, by Firm Size**

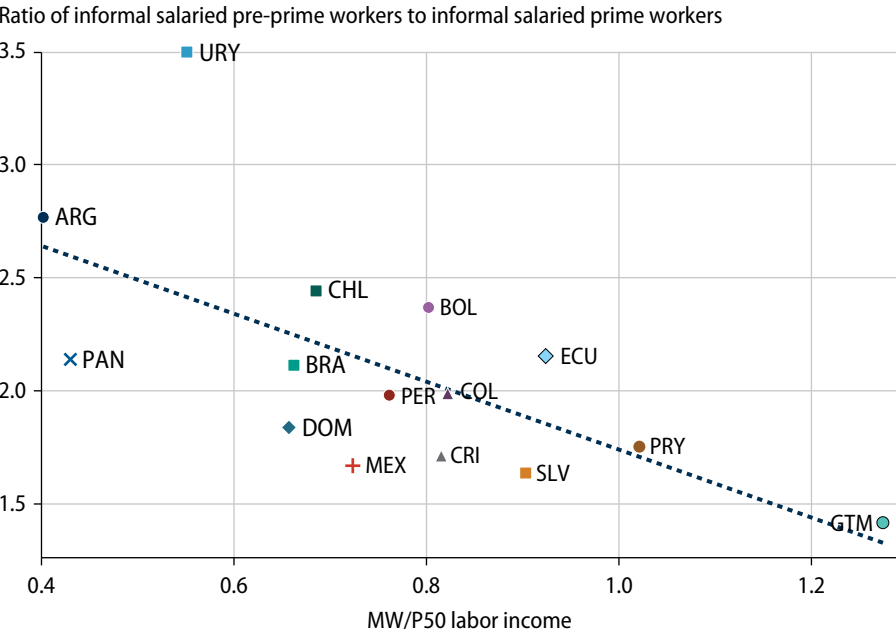
| Variable                                                  | Firm size   |              |             | All prime-age workers |
|-----------------------------------------------------------|-------------|--------------|-------------|-----------------------|
|                                                           | 1–5 workers | 6–49 workers | 50+ workers |                       |
| Share of informal salaried prime-age workers in firm size | 67%         | 24%          | 6%          | —                     |
| Share of prime-age workers                                | 10%         | 4%           | 1%          | 100%                  |
| Primary school                                            | 57%         | 48%          | 37%         | 41%                   |
| High school                                               | 36%         | 38%          | 41%         | 43%                   |
| College or higher                                         | 7%          | 14%          | 23%         | 33%                   |
| Tenure (years)                                            | 2           | 2            | 2           | 5                     |
| Hours                                                     | 42          | 45           | 45          | 43                    |

Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024). Prime age = workers 25–54 years old. Each column represents a different sample universe. — = not applicable.

different jobs (Balán et al. 1973), partly resulting from the types of jobs their low skills avail, it is also true that they appear to be the ones most affected by segmenting distortions and being rationed out of jobs they might prefer. Figure 3.17 shows that as minimum wages rise, the importance of the prime-age component relative to the stepping-stone component rises steeply. In other words, as the minimum wage rises relative to the median wages, more prime-age workers have difficulty finding formal jobs. In Uruguay, the informal salaried are 3.5 times more likely to be of pre-prime age, while in Guatemala, they are only 1.5 times more likely to be of pre-prime age.

**FIGURE 3.17 Relationship between Minimum Wage and Informal Salaried Workers at Prime and Pre-prime Ages**

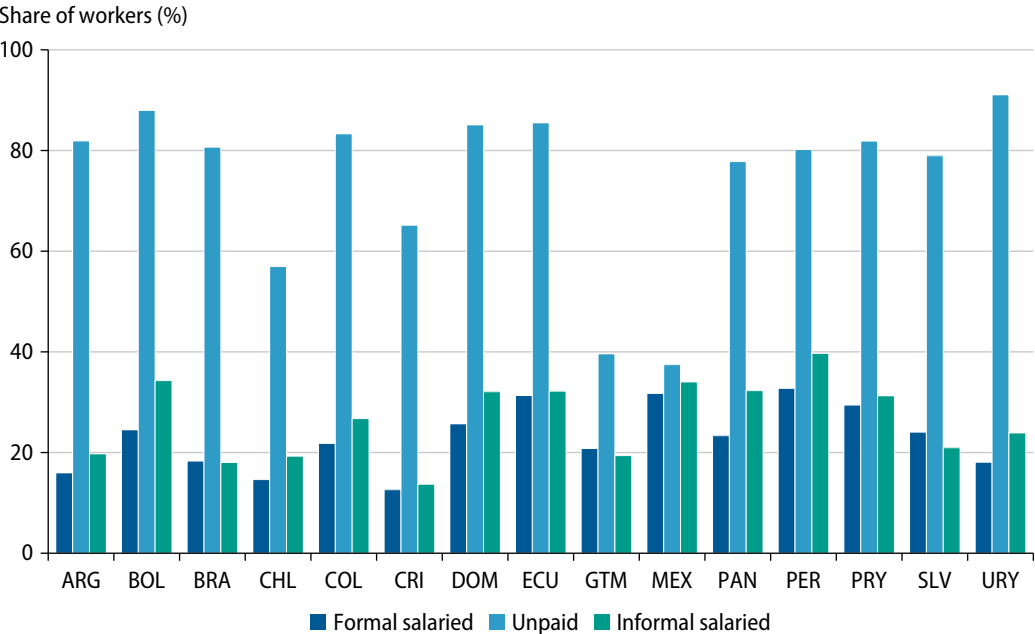


Source: Original compilation of minimum wage data; SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.  
Note: The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022) and Mexico (2024). The vertical axis shows the ratio of informal salaried workers in pre-prime age (18–24) to those in prime age (25–54). The horizontal axis shows the ratio of minimum wage (MW) to the median (P50) monthly labor income for each country. The dashed line indicates the fitted trend across countries. International Organization of Standardization (ISO) country codes available at <https://www.iso.org/obp/ui/#search>.

### Unpaid Workers: Family Employees in the Household Enterprise

The fact that about 10 percent of the workforce in LAC appears to work for free seems illogical until these workers are located in the context of the household. As figure 3.9 showed, unpaid spouses are almost exclusively found in households where the head of the household is self-employed, and indeed figure 3.18 suggests that 80 percent of unpaid people are in households with a self-employed person compared to about 30 percent of formal and informal salaried workers. Further, the vast majority, about 90 percent, are spouses or adult children (figure 3.19).

**FIGURE 3.18** Distribution of Work Categories for Households with Self-Employed Workers

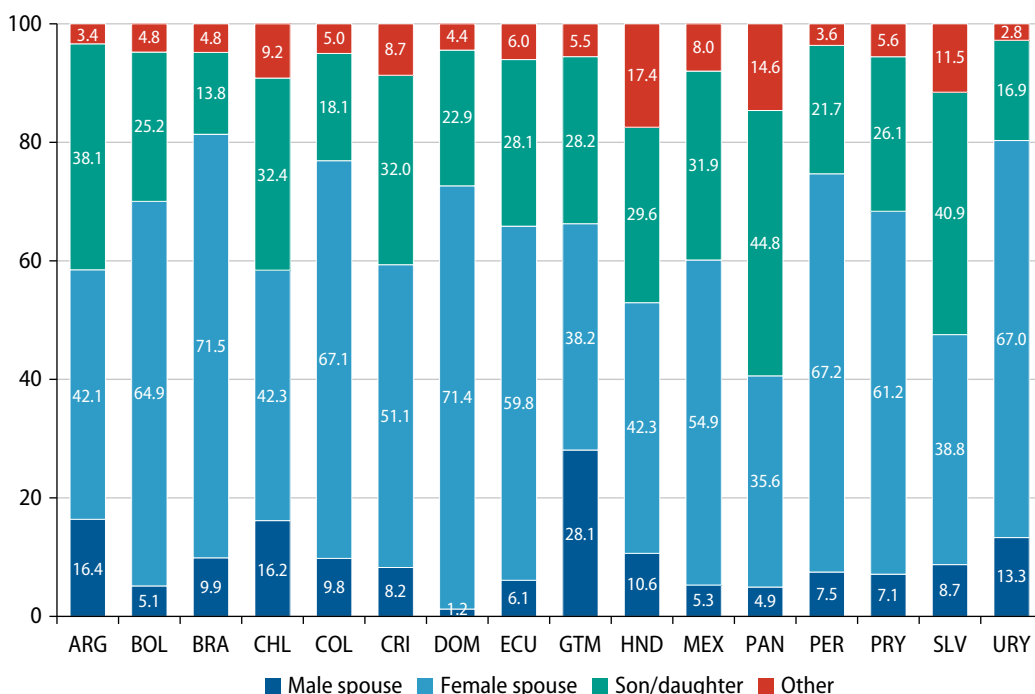


Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: The figure reports three proportions of workers by country: (1) formal salaried workers belonging to households where at least one member is self-employed, (2) unpaid workers belonging to households where at least one member is self-employed, and (3) informal workers belonging to households where at least one member is self-employed. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024). International Organization of Standardization (ISO) country codes available at <https://www.iso.org/obp/ui/#search>.

**FIGURE 3.19** Distribution of Unpaid Workers Ages 18 and Older Within Nuclear Households

Share of workers (%)



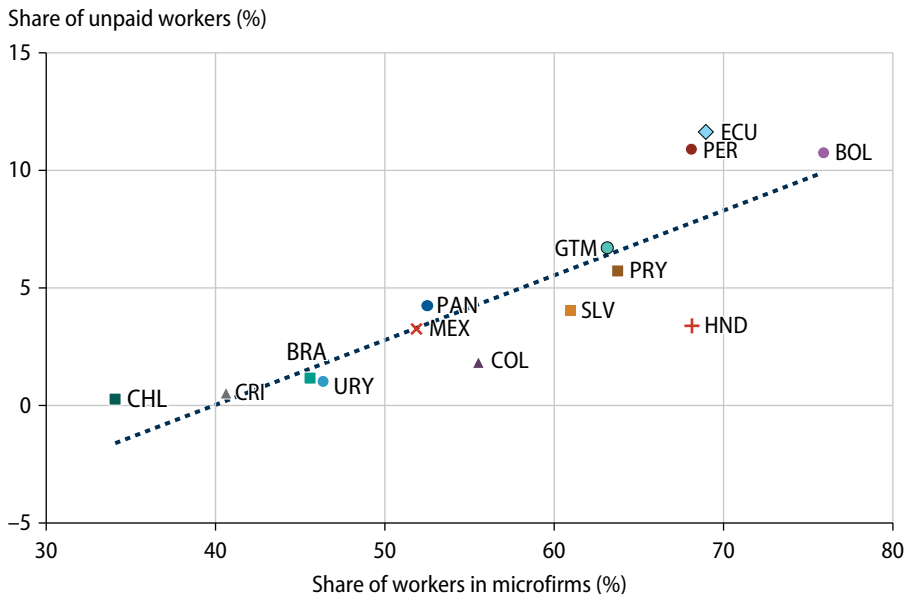
Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: Each bar represents an unweighted country average. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), Honduras (2019), and Mexico (2024). International Organization of Standardization (ISO) country codes available at <https://www.iso.org/obp/ui/#search>.

Thus, it is not at all surprising that the incidence of unpaid work closely tracks the share of the workforce in microfirms (figure 3.20).

Unpaid young workers account for 29.7 percent of the unpaid, and they are the most likely of any employment group to be living with their parents (78 percent); and 87 percent—more than double any other category—have a self-employed worker in their family. Additionally, 61 percent of young adult unpaid workers work less than 40 hours per week versus 13 percent of formal salaried young adult workers and 34 percent of informal salaried young adult workers (refer to table 3.2 provided earlier in chapter). This suggests that young adult unpaid workers may be helping out after school, although the fact that they are only about 10 percentage points more likely to be studying than other groups may suggest some underemployment—neither studying nor working for pay—reflecting difficulty entering the labor force.

**FIGURE 3.20 Comparison of Unpaid Workers to Workers in Microfirms, by Country**



Source: SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: Each point represents a country-year observation. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), Honduras (2019), and Mexico (2024). The horizontal axis shows the share of workers in microfirms, which is defined as firms with five or fewer workers excluding the owner. The vertical axis shows the share of unpaid workers among employed individuals. The dashed line indicates the fitted trend across observations. The countries included are Argentina (ARG), Bolivia (BOL), Brazil (BRA), Chile (CHL), Colombia (COL), Costa Rica (CRI), Ecuador (ECU), Guatemala (GTM), Honduras (HND), Mexico (MEX), Panama (PAN), Paraguay (PRY), Peru (PER), El Salvador (SLV), Uruguay (URY).

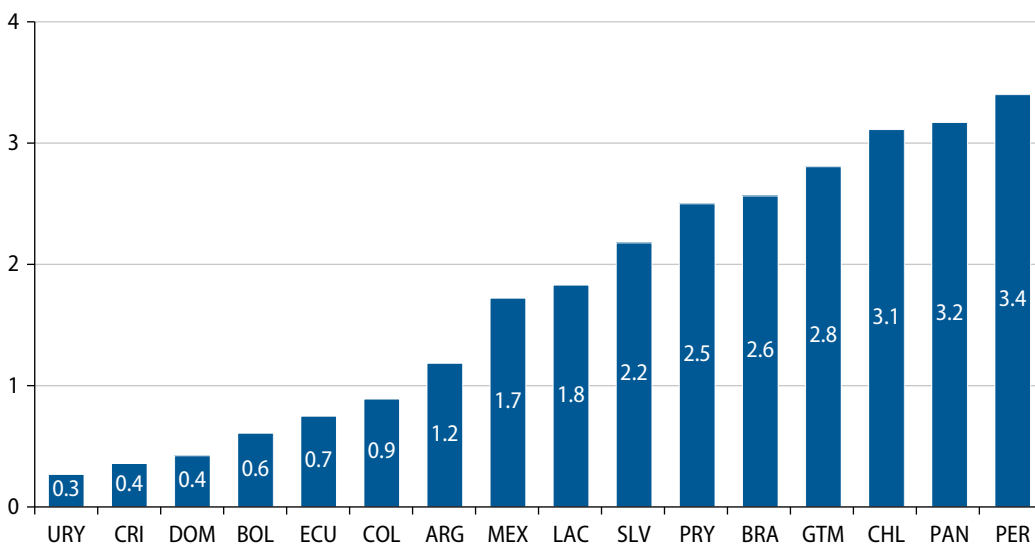
### Informal Salaried Employment in Large Firms

Though this volume has focused on the 85 percent of the informal salaried that run or are employed in microfirms, a high visibility share of the informal are found in larger firms. That share, however, is small: informal salaried in large firms of more than 50 workers is about 2 percent of total employment (8.4 percent of informal salaried employment) and ranges from 0.3 percent in Uruguay to 3.4 percent in Peru (figure 3.21).

It is well established that larger firms are more likely to be detected by authorities and hence are formal. Substantial progress has been made on the logic behind firms' decisions to formalize themselves as they grow and, in particular, the share of their workforce that is formal. Chapter 2 showed that as microfirms grow, they become more formal overall and in more dimensions, including what they offer their workers. Conceptually, formality can be considered an input in the production process—as firms grow, they may outgrow family based labor relations and actually need access to formal labor-related institutions, such as training programs, labor courts, and social protection mechanisms (Beylis, Cerutti et al., forthcoming; Levenson and Maloney 1998).

**FIGURE 3.21** Distribution of Informal Salaried Workers in Firms with 50 or More Workers

Share of workers (%)



Source: Original calculations based on SEDLAC (CEDLAS and the World Bank), Household Surveys, <https://www.cedlas.econo.unlp.edu.ar/wp/en/estadisticas/sedlac/>.

Note: Each bar is an unweighted average of each country, except for the Latin America and the Caribbean (LAC) bar, which is an unweighted average. The last year of available data is used for countries without 2023 information in SEDLAC: Chile (2022), and Mexico (2024). International Organization of Standardization (ISO) country codes available at <https://www.iso.org/obp/ui/#search>.

Within large firms, both the share of the workforce that is formal and how—and which elements of—the mandated benefits are complied with reflect the optimization decisions of the firms confronted with their production process, the characteristics and constraints of labor regulation, and indeed, the preferences of workers. Clearly, partial or total informality can just be a way of evading mandated worker regulations. As the previous section highlighted, the wedge between what firms and workers pay and the value of those benefits to workers leaves room for bargaining between the two parties.

Bosch and Esteban-Pretel (2012) approach the issue from the perspective of a search-and-matching labor market, demonstrating how firms dynamically adjust their hiring practices between formal and informal contracts depending on labor market conditions and policy interventions. Ulyssea (2018) models this behavior using a structural general equilibrium framework, showing that even productive, registered firms may opt to hire informally to avoid labor taxes and regulations, especially when enforcement is weak. Cisneros-Acevedo and Ruggieri (2022) further explore how tax policy affects both the extensive and intensive margins of informality, finding that reducing payroll taxes can serve as an incentive for formal firms to formalize more of their workforce, while corporate tax cuts may lead to concentrated employment in fewer, larger

firms that hire both formal and informal workers. Collectively, these studies challenge the assumption that employment in large, formal firms guarantees formal labor status, highlighting the need for nuanced policy approaches that address both the intensive and extensive margins of informality.

Research on enforcement and compliance shows that stronger enforcement tends to increase formalization rates but may also reduce firm growth and job survival.<sup>2</sup> Recent evidence from Brazil provides a lens for understanding why even large, formal firms hire informally and the significant, often unintended, consequences of enforcement. An analysis of labor audits reveals that formal firms use informal workers as a tool for flexibility, particularly when experimenting with uncertain growth opportunities because this avoids high firing costs if the venture fails. However, the study uncovers a critical policy trade-off: when firms are caught and penalized, they experience a sharp and sustained slowdown in growth and a reduction in subsequent innovation, such as patent registrations. This finding powerfully reinforces that enforcement, in isolation, can be a double-edged sword. While intended to promote compliance, aggressive enforcement in a high-cost regulatory environment can stifle the very risk-taking and dynamism that drive firm growth, ultimately harming productivity and long-term formal job creation (Brotherhood et al. 2024). This underscores the need for a balanced policy approach that pairs enforcement with reforms that lower the costs and increase the value of hiring formally.

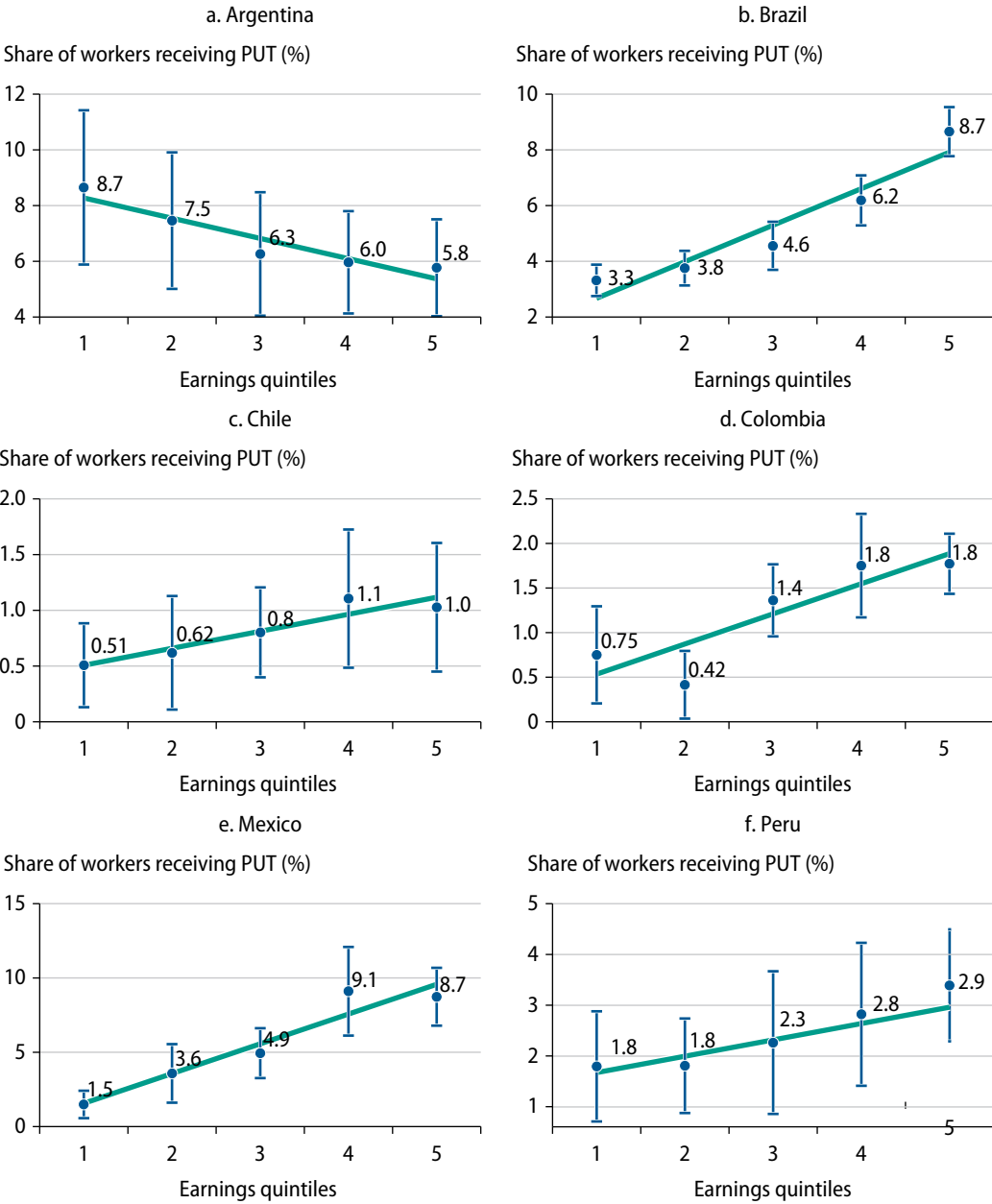
Another factor on the dependent worker side of informality is the existence of “payments under the table” (PUT), a practice in which employers and workers jointly agree to report only part of the wage. Evidence from the region shows that the practice of PUT is particularly prevalent in medium and large firms and among higher-income workers, reflecting structural design problems in benefit systems and predictable responses to incentives.

Importantly, the practice of PUT is a result of bilateral bargaining, not a unilateral act of evasion. Firms benefit by lowering total labor costs; workers benefit when the marginal value of additional contributions is perceived as low—because benefit formulas flatten above certain thresholds, household coverage reduces the value of additional formalization, workers discount the relevance of pensions, or the design of the pension system has discontinuities in the benefit calculation. The practice of PUT arises when the system makes full reporting privately costly.

Enforcement alone cannot solve the problem: If the tax and benefit system makes underreporting mutually beneficial to firms and workers, the practice of PUT will remain prevalent. Eliminating the incentive requires designing a system in which full compliance is the best option for both parties.

In a background paper for this volume, Feinmann et al. (forthcoming) report that an average of 15 percent of formal workers in Argentina, Brazil, Chile, Colombia, Mexico, and Peru underreport income. As can be seen in figure 3.22, for most countries, except Argentina, payments under the table

**FIGURE 3.22** Prevalence of Payments Under the Table, by Level of Income



Source: Feinmann et al. forthcoming.  
Note: Earnings quintiles: 1 = lowest and 5 = highest. PUT = Payment under the table.

are higher among higher-income workers. In this case, the “distortion” in the social protection system lies in its progressivity, with workers not paying a part that would finance benefits to lower-income workers (Dean et al. 2024; Kumler et al. 2020; Lauletta and Bérgholo 2025).

Colombia, a country with very high informality levels, has one of the lowest rates of PUT, which is likely related to the fact that corporate income tax has incentives for formal firms to pay all the salaries formally. Once firms grow enough to pay corporate taxes, they can deduct formal labor costs (wages, social security contributions) from their taxable income, which dramatically lowers the net cost of hiring formal employees. By contrast, small firms below the tax threshold cannot use these deductions, so the effective cost of a formal worker for a microenterprise is much higher (Fernández 2022).

## Conclusion

Chapter 1 showed that the prevalence of informal self-employment appeared largely because in developing countries the opportunity cost of self-employment and the benefits of being your own boss, along with the flexibility that this brings, are lower for low-skilled workers in low-productivity economies. The valuation of these amenities is often far higher than the formal benefits forgone. Further, the poor design of many social protection programs shifts the incentives toward exiting or opting out of formal employment.

This chapter has shown that much of dependent informality—unpaid and informal salaried employment—has its center in the same household microfirm economy. The unpaid are found overwhelmingly in a family firm, suggesting household optimization in the allocation of labor and payment that is received in kind. Informal workers are overwhelmingly low skilled and found in informal microfirms. In both cases, there is a strong correlation between the share of the microfirm employees—workers in firms with five workers or less—and the presence of unpaid and informal labor.

Many respondents do not see as sharp a difference in job quality as suggested by legal standing. Curiously, many informal salaried workers report receiving many of the benefits thought reserved for the formal salaried. Further, family sharing of benefits and the expansion of universal noncontributory social protection mean that social protection coverage is often very high.

That said, while some of the amenities that make self-employment attractive are reported by many informal salaried workers, overall, the evidence suggests that the level of necessity entrants is higher. The very low skill levels make minimum wages and other labor market inefficiencies especially binding both on young workers and prime-age workers. All workers have short tenures and appear to be shopping around and establishing track records, but young informal salaried workers treat the sector as a stepping stone and leave quickly for better formal jobs or self-employment. However, it is the modestly skilled prime-age males who appear most affected when minimum wages rise and who wind up ping-ponging among low productivity jobs, often in the informal sector. The 6 percent of prime-age informal salaried workers found in large firms (more than 50 workers) are the result of firms repressing costs and of deals with workers to arbitrage the often inefficient design of social protection systems.

## Notes

1. This average is over 13 LAC countries and comes from data from the Socio-Economic Database for Latin America and the Caribbean (SEDLAC) household surveys. It refers to the share of workers who are dependent and not contributing to pensions.
2. Ulyssea (2018) shows that in Brazil, at least 40 percent of informal workers are in formal firms. In Mexico, the share is 44 percent (Samaniego de la Parra and Bujanda 2024).
3. IBGE (Brazilian Institute of Geography and Statistics), Pesquisa Nacional por Amostra de Domicílios Contínua [National Household Sample Survey] (PNAD Contínua). The survey numbers report the average commute time to work, by educational level and employment status (formal or informal) of workers in the 18–54 age group, in Brazil. The question was asked using time intervals; the data show the average of the midpoints of the intervals. Data are from 2014, the last year in which the question was asked in the survey.
4. The 8 percent refers to employees' mandatory social security contributions (4 percent for health and 4 percent for pensions) applied to gross salary. In addition, workers above roughly 1.3 times the minimum wage are subject to income tax withholding, with marginal rates starting at 19 percent and rising to 39 percent for top earners.
5. Countries such as Argentina have a policy of open emergency rooms for anyone who needs it. It does not show up in the table as 100 percent coverage because there is no need to register anywhere, but health care can be secured via that means by anyone.
6. All the figures and numbers using transitions are derived from panel-level data homogenized by Donovan et al. (2023) and are for a more restricted number of countries, including Argentina (2003–24), Bolivia (2015–21), Brazil (2002–23), Chile (2010–23), Costa Rica (2010–23), the Dominican Republic (2016–24), Ecuador (2007–19), Mexico (2005–23), Paraguay (2010–17), and Peru (2004–19).
7. Refer, for example, to Brotherhood et al. (2024); Prado et al. (2025); and Samaniego de la Parra and Bujanda (2024).

## References

- Bachas, P., L. Gadenne, and A. Jensen. 2024. "Informality, Consumption Taxes, and Redistribution." *Review of Economic Studies* 91 (5): 2604–34.
- Balán, J., H. L. Browning, and E. Jelin. 1973. *Men in a Developing Society: Geographic and Social Mobility in Monterrey, Mexico*. University of Texas Press.
- Berniell, I., L. Berniell, D. de la Mata, M. Edo, and M. Marchionni. 2023. "Motherhood and Flexible Jobs: Evidence from Latin American Countries." *World Development* 167 (July): 106225. <https://doi.org/10.1016/j.worlddev.2023.106225>.
- Beylis, G., E. Cerutti, and W. Maloney. Forthcoming. "Formality as an Input in Production: Micro-Entrepreneurship and Informality in Chile, Colombia, and Mexico." Background paper for this volume, World Bank.
- Beylis, G., A. Garin, N. Gonzalez-Prieto, and D. Koustas. 2026. "Valuing Alternative Work Arrangements: Evidence from 7 Countries with High Rates of Informality." Policy Research Working Paper, World Bank.
- Bosch, M., and J. Esteban-Pretel. 2012. "Job Creation and Job Destruction in the Presence of Informal Markets." *Journal of Development Economics* 98 (2): 270–86.
- Bosch, M., L. Flabbi, W. F. Maloney, and T. Tejada. 2025. "Sources and Implications of Labor Market Informality: The Case of Minimum Wage Policies." Conference presentation. LCR Economics Seminar Series, Universidad Diego Portales–Santiago de Chile.
- Bosch, M., and W. F. Maloney. 2010. "Comparative Analysis of Labor Market Dynamics Using Markov Processes: An Application to Informality." *Labour Economics* 17 (4): 621–31.
- Brotherhood, L., D. Da Mata, N. Guner, P. Kircher, and C. Santos. 2024. "Labor Market Regulation and Informality." Working Paper IDB-WP-1646, Inter-American Development Bank.
- Chiodas, L. 2011. "Work and Family: Latin American and Caribbean Women in Search of a New Balance." World Bank.
- Cisneros-Acevedo, C., and A. Ruggieri. 2022. "Firms, Policies, Informality and the Labour Market." GEP No. 2022/11, Nottingham Centre for Research on Globalisation and Economic Policy (GEP), University of Nottingham.
- Contreras, I., L. Dinarte-Díaz, A. Palacios-Lopez, V. Costa, and S. Romero. 2026. "Beyond Wages: What Matters Most in Job Choice for Women in El Salvador." Policy Research Working Paper 11333. World Bank. <http://hdl.handle.net/10986/44497>.
- Cunningham, W. 2007. *Minimum Wages and Social Policy: Lessons from Developing Countries*. Directions in Development–Human Development, World Bank. <http://hdl.handle.net/10986/6760>.
- Dean, A., S. Fleitas, and M. Zerpa. 2024. "Dynamic Incentives in Retirement Earnings-Replacement Benefits." *The Review of Economics and Statistics* 106 (3): 762–77.
- Donovan, K., W. J. Lu, and T. Schoellman. 2023. "Labor Market Dynamics and Development." *Quarterly Journal of Economics* 138 (4): 2287–325. <https://doi.org/10.1093/qje/qjad019>.
- Feinmann, J., A. P. Franco, P. Garriga, N. Gonzalez-Prieto, R. Hsu Rocha, and M. Lauletta. Forthcoming. "Payments under the Table in Latin America: Evidence from Argentina, Brazil, Colombia, Chile, Mexico, and Peru." Background paper for this volume, unpublished.

- Fernández, C. 2022. "Firms, Informality and Institutions. The Case of Colombia." Documentos de Trabajo 20598, Universidad del Rosario.
- Fietz, K. 2025. "Do Workers Value Formal Jobs? Evidence from Brazil." Unpublished manuscript.
- Freeland, E., A. Garin, D. Koustas, and L. Tô. 2026. "Why Do People Choose Alternative Work Arrangements? Evidence from a Survey Experiment." Paper submitted to the American Economic Association Annual Meeting, San Francisco, CA, January 3.
- Frölich, M., D. S. Kaplan, C. Pagés, J. Rigolini, and D. Robalino, eds. 2014. *Social Insurance, Informality, and Labour Markets: How to Protect Workers while Creating Good Jobs*. Oxford University Press.
- González de la Rocha, M. 1994. *The Resources of Poverty: Women and Survival in a Mexican City*. Blackwell.
- Gonzalez-Prieto, N. and E. Oue. Forthcoming. "Entry, Screening, and Transition: Understanding Young Informal Salaried Work in LAC." Background paper for this volume, World Bank.
- Ianchovichina, E. 2024. *La evolución geográfica de la productividad y el empleo: Ideas para lograr un crecimiento inclusivo a través de una perspectiva territorial en América Latina y el Caribe*. Estudios del Banco Mundial sobre América Latina y el Caribe, World Bank.
- Ianchovichina, E., and R. Zárate. 2021. "Segregation, Informality, and Misallocation." Background paper prepared for the report *The Evolving Geography of Productivity and Employment*, World Bank.
- Kumler, T., E. Verhoogen, and Judith Frías. 2020. "Enlisting Employees in Improving Payroll Tax Compliance: Evidence from Mexico." *The Review of Economics and Statistics* 102 (5): 881–96.
- Lauletta, M., and M. Bérgholo. 2025. "Pension Privatization and Worker Behavior: Evidence from a Cohort-Based Reform." Research paper.
- Levenson, A. R., and W. F. Maloney. 1998. "The Informal Sector, Firm Dynamics, and Institutional Participation." Policy Research Working Paper 1988, World Bank. <http://documents.worldbank.org/curated/en/199771468757482154>.
- Maloney, W. F. 1999. "Does Informality Imply Segmentation in Urban Labor Markets? Evidence from Sectoral Transitions in Mexico." *World Bank Economic Review* 13 (2): 275–302.
- Maloney, W. F. 2004. "Informality Revisited." *World Development* 32 (7): 1159–78.
- Maloney, W. F., J. A. Zambrano, G. Vuletin, G. Beylis, and P. Garriga. 2024. "Taxing Wealth for Equity and Growth." *Latin America and the Caribbean Economic Review* (October). World Bank.
- Neri, M., G. Gonzaga, and J. M. Camargo. 2001. "Minimum Wage, 'Lighthouse Effect' and Poverty." *Brazilian Journal of Political Economy* 21 (2): 263–76. <https://doi.org/10.1590/0101-31572001-1264>.
- Neumark, D., and E. Wohl. 2026. "Do Higher Tipped Minimum Wages Reduce Race, Ethnic, or Gender Earnings Gaps for Restaurant Workers?" *Industrial Relations: A Journal of Economy and Society* 65 (2): 176–99.
- Nunez, J., W. F. Maloney, N. Fiess et al. 2001. "Measuring the Impact of Minimum Wages: Evidence from Latin America." Policy Research Working Paper 2597, World Bank.

- Perry, G., W. F. Maloney, O. S. Arias, P. Fajnzylber, A. D. Mason, and J. Saavedra-Chanduvi. 2007. *Informality: Exit and Exclusion*. World Bank Latin American and Caribbean Studies, World Bank. <http://documents.worldbank.org/curated/en/326611468163756420>.
- Prado, T., M. Santos, and B. Van Doornik. 2025. “Enforcing Compliance with Labor Regulations and Firm Outcomes: Evidence from Brazil.” *Journal of Development Economics* 176 (September): 103493. <https://doi.org/10.1016/j.jdeveco.2025.103493>.
- Samaniego de la Parra, B., and L. Fernández Bujanda. 2024. “Increasing the Cost of Informal Employment: Evidence from Mexico.” *American Economic Journal: Applied Economics* 16 (1): 377–411. <https://doi.org/10.1257/app.20200763>.
- Suárez, M., M. Murata, and J. Campos. 2015. “Why Do the Poor Travel Less? Urban Structure, Commuting and Economic Informality in Mexico City.” *Urban Studies* 53 (12): 2548–66. <https://www.jstor.org/stable/26151222>.
- Ulyssea, G. 2018. “Firms, Informality, and Development: Theory and Evidence from Brazil.” *American Economic Review* 108 (8): 2015–47. <https://doi.org/10.1257/aer.20141745>.

This chapter begins with a general equilibrium model of a developing-country labor market that integrates the stylized facts about the nature and behavior of the informal sectors. The first section, “A Comprehensive Framework to Understand the Developing-Country Labor Market and Design Effective Policy,” describes the general framework and summarizes the key insights that emerge from counterfactual simulations. The second section, “Policy Recommendations,” then draws on the findings of the model and those of the previous three chapters to recommend a broad set of policies that can support policy makers in achieving the three fundamental social goals of social protection coverage, creating high-quality jobs, and sparking dynamic growth.

## **A Comprehensive Framework to Understand the Developing-Country Labor Market and Design Effective Policy**

The previous chapters develop several stylized facts on which Beylis, Maloney et al. (2026) integrate into a model of developing-country labor markets that attempts to bridge various perspectives and quantify the fundamentals determining job quality, social protection coverage, and growth:

- Workers self-select across different sectors according to their abilities and preferences, just as they do in the advanced countries. In this decision

they weigh not only relative earnings but also the associated amenities in each sector—benefits in the formal sector and agency and autonomy in self-employment. The book collects data showing that amenities are highly valued measured as a share of income, and that formal benefits are often valued less than contributions. Hence, roughly two-thirds enter informal work for “opportunity reasons.” This does not imply they are well off or happy; they are just choosing the best among options of equal (low) quality, and the model can borrow mainstream choice models to reflect this.

- Perhaps a third of the labor force corresponds to the traditional view of informality being the disadvantaged sector of a segmented labor market, entrants for reasons of “necessity.” Hence, the model layers labor market rigidities on the selection process.
- A minimum of four clearly distinct sectors are needed to capture the structure of the labor market. As in the advanced countries, there are two entrepreneurial sectors: one informal microfirm sector largely unregistered with authorities corresponding to Lucas’s (1978) mom-and-pop firms and one “transformational” sector of more able entrepreneurs who drive growth and employment. There are two salaried sectors, an informal and a formal one.
- A central distinguishing characteristic between formal and informal sectors is the level of skills, with both formal salaried and entrepreneurial sectors having more than three years more education. This drives both the comparative advantage of workers and hence their choice of sectors and the steady state size of firms in each entrepreneurial sector.
- The informal self-employed sector is the epicenter of the informal sector with the vast majority of informal workers running a business or working there. They share the same entry and growth dynamics as their advanced-country counterparts and, in particular, the seeming paradox of entry for opportunity reasons, but without aspirations to grow—and hence they are well described by mainstream models.
- Analogously to the workers, these microfirms weigh the cost and benefits of interacting with the institutions of civil society (formality). The level of skills, and hence likely steady state size, influences this choice.
- Far more workers are covered by social protections than by labor contracts, making the formality/informality dichotomy less informative about the quality of jobs than in the past. What is essential to understand from the point of view of growth is, in fact, the allocation of workers between large firms and microfirms.

- This said, much of the informal salaried sector corresponds to low-skill workers rationed out of formal jobs by wage rigidities or other regulatory inefficiencies.
- The adequate description of worker sector selection and microfirm dynamics by mainstream models means that there is no need to assume distinct utility or production functions for the informal sector. This observation implies that evolution across the development process is, importantly, due to an accumulation of factors of production and not a changing economy *per se*.

These insights are integrated by Beylis, Maloney et al. (2026), who develop a general equilibrium model that, first, allows quantifying the importance of five factors: the distribution of skills; distortions of the labor market; distortions in the overall enabling environment and in particular the credit market; the incentives implicit in the social protection system; and then the valuation of amenities in self-employment. This model allows understanding the drivers of the labor market—labor allocation, informality, the distribution of firm size, and the aggregate productivity and welfare—across the development process as well as quantifying the impact of commonly recommended policies.

The model has a dynamic general equilibrium structure with overlapping generations of households that are heterogeneous in age, skills, and the valuation for amenities associated with self-employment. Households are born with an exogenous level of productivity that increases deterministically with age as well as a preference for self-employment that is included as a multiplicative factor for consumption. Given their productivity, preferences, and initial assets, households make occupational decisions between being a (formal or informal) entrepreneur or a (formal or informal) salaried worker, while choosing consumption and savings.

Firms can be formal or informal, and they produce using labor and capital; they are endowed with a unit of labor and the productivity of the entrepreneur à la Lucas (1978). A formal firm must pay payroll and profit taxes while hiring labor subject to a minimum wage and renting capital subject to imperfect credit constraints. Informal entrepreneurs operate in autarky—the only capital they can use comes from their own savings—and labor faces an increasing marginal cost representing restrictions on the informal firm size (Ulyssea 2018, 2020). Formal workers receive wages above the minimum wage and pay their corresponding payroll taxes, whereas informal workers do not face any taxes or mandates.

The government collects taxes and provides social security. Government revenues come from payroll taxes and profit taxes. Social expenditures are calibrated to match public health expenditures, pension outlays, and social transfers. The value of the labor endowment allocated to each firm is funded through equal lump sum taxes to all individuals.

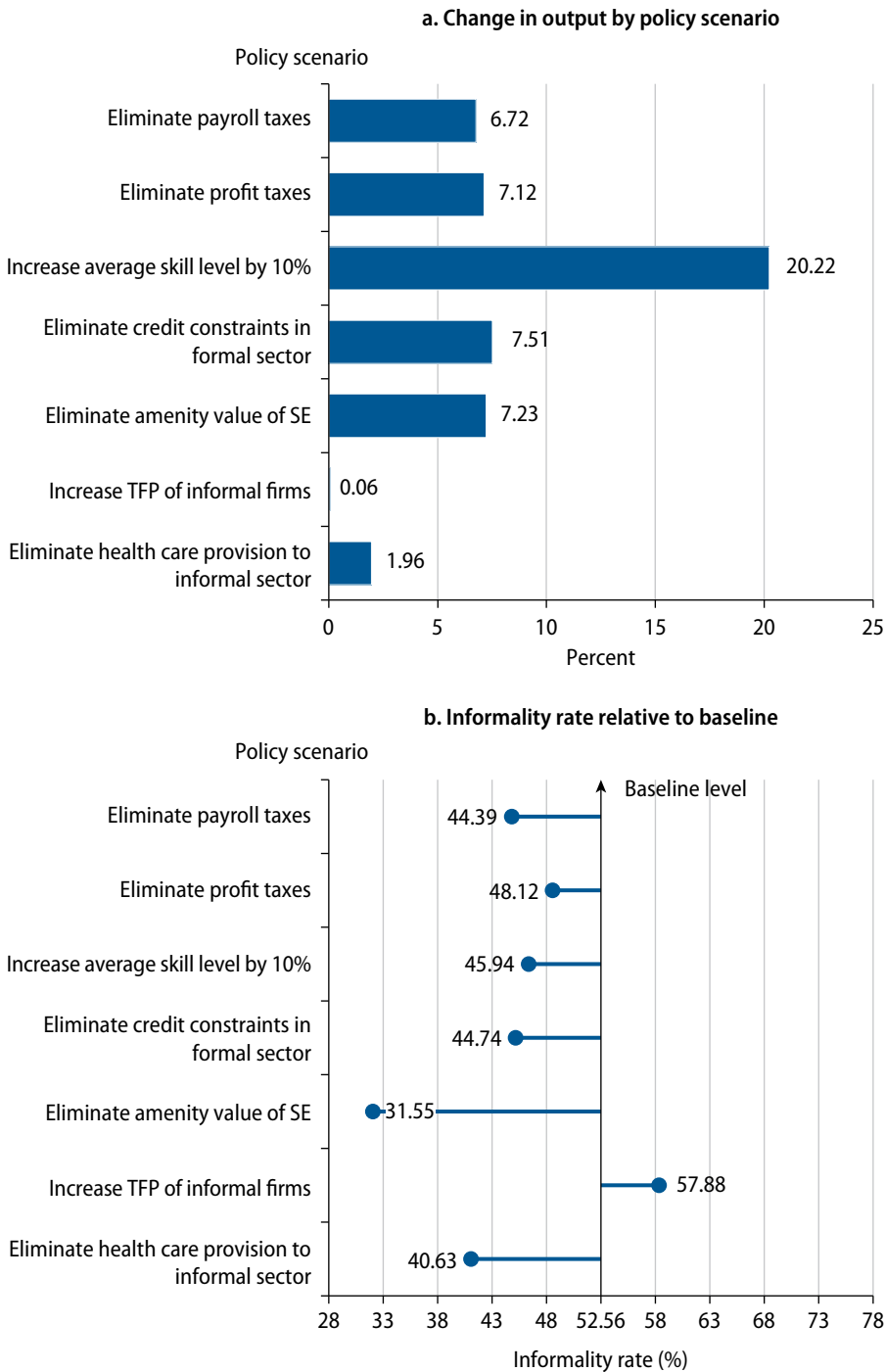
The model is calibrated to the Colombian economy. Payroll and profit taxes are calibrated according to the Colombian statutory tax, social security subsidies follow official aggregate statistics, and estimates for the willingness to pay from Beylis, Garin et al. (2026) are used for the amenity value for self-employment. The minimum wage is chosen to match the informality rate, and the productivity parameters match the size distribution of the firms in Colombia (Eslava et al. 2025). The rest of the parameters follow the standard literature.

The calibrated model is able to replicate the informality rate in Colombia, as well as the proportion of formal business owners, formal salaried workers, informal salaried workers, and informal self-employed. A major contribution of the Beylis, Maloney et al. (2026) model is that it generates a large share of own-account workers—that is, microenterprises that have no employees. More broadly, the model replicates firm size patterns in both the informal sector (many tiny firms) and the formal sector (a majority of firms with more than five employees).

Moreover, the baseline model broadly recreates the life-cycle patterns documented in chapter 3, with young workers entering the labor force as salaried workers and slowly graduating into self-employment as they accumulate assets and increase their labor market skills. Consistent with the empirical evidence presented in chapter 1, workers sort into occupations according to their preferences.

### **Key Insights from the Model**

The model enables simulating the impact of several frequently discussed policies on the size of the informal sector, productivity, and overall welfare of changes to the economy. Results on key indicators (output, informality rate, and the share of formal and informal workers) of the baseline model and counterfactuals are shown in figure 4.1. A discussion of some of the key insights that can inform policy then follows.

**FIGURE 4.1** Baseline and Counterfactual Results: Key Indicators

Source: Beylis, Maloney et al. 2026.

SE = self-employment; TFP = total factor productivity.

1. The preferences for job amenities associated with self-employment, such as flexibility and agency (being your own boss), are a key driver for the relatively large informal sector in the economy.

*Eliminating the value of amenities in the self-employment sector cuts the rate of informality in half.* That is, even in a perfectly undistorted labor market, informal self-employment persists because individuals value being their own boss and having flexibility, and that is worth a significant discount in earnings.

*Importantly, eliminating the value of amenities has a large impact on productivity* (figure 4.1, panel a). Critically, workers are equating marginal utility across sectors, not marginal productivity. While maximizing social welfare, allocating informal workers to jobs in larger (more productive) firms would increase output and, potentially, growth. Reducing the relative amenity value of self-employment brings workers' marginal utility closer to marginal productivity.

*Improving the perceived value of formal sector benefits increases formality, and more generally the design of the social protection system can alter the relative amenity value between sectors.* Workers calculate—however imperfectly—the relative benefits of selecting the salaried versus self-employed sector. While the value of flexibility and agency in being self-employed is difficult to affect through policy, the incentives built into the social protection system can alter the calculus. Increasing the perceived value of formal sector benefits can decrease informality substantially (figure 4.1, panel b). Because both earnings and offered amenities largely increase with productivity, shifting the relative attractiveness of formal salaried employment becomes, largely, a function of reforms devoted to promoting investment and innovation along with labor law designed with an eye to maximizing employment attractiveness within current constraints. As an example, allowing part-time contracts clearly facilitates home/family balance for women and thus would make formal jobs more attractive and potentially create significant productivity effects.

*Extending the social safety net to informal workers and the informal self-employed has the effect of reducing the relative value of formal benefits and thus strongly incentivizes informality, but it does not cause major declines in productivity.* The effect is only modest because entrepreneurs with mediocre productivity flip formality status, but the underlying fundamentals affecting their size and growth do not change. Simulations

suggest that the least productive formal self-employed workers will switch to informality, but there is very little reallocation toward salaried employment, again highlighting the important role of preferences in worker decisions. Hence, the concern of Levy (2008) that extending such programs is a major cause of Latin America and the Caribbean (LAC)'s low growth in this particular model is not heavily supported.

2. Reducing labor market distortions is key to improving allocative efficiency but cannot fully eliminate informality.

*Labor market segmentation cannot explain the large share of informality observed.* As previously noted, even when there are no distortive taxes, a large share of workers choose self-employment because of how much they value the flexibility and independence it offers. This observation is critical because it suggests that an exclusive focus on reducing the minimum wage to combat informality, for example, is not justified, either from an efficiency or job quality point of view.

This said, such distortions are important. The model is calibrated to the Colombian economy, which has a very high minimum wage, and the results suggest that decreasing the minimum wage improves the selection of entrepreneurs (both formal and informal), increasing the size of formal and informal firms, allocative efficiency, and hence output. However, the authors note that this result may be contingent on context (Maloney et al. 2024), particularly the level of the minimum wage relative to average or median wages.<sup>1</sup>

*Removing social security contributions decreases self-employment and informality, reallocating informal entrepreneurs into formal salaried work and, to a smaller extent, toward formal entrepreneurship.* The mechanism is similar to that of eliminating the value of amenities, albeit with a smaller impact. Essentially, reducing the payroll taxes that firms and workers pay makes formal salaried employment relatively more attractive. Formal wages increase significantly, drawing workers away from informal self-employment and into formal employment, thus improving productive allocative efficiency and overall output.

*Removing profit taxes decreases informality but has a smaller effect on reducing self-employment.* Eliminating this distortion makes firms more productive, and formality more attractive, but it does little to alter the calculus of workers when evaluating the costs and benefits of salaried

employment versus self-employment. The largest effect is that informal entrepreneurs now find formality more attractive and thus switch formality status. Nevertheless, it has important positive effects on productivity as entrepreneurs are incentivized to accumulate significantly more capital and hence increase overall output significantly.

3. Expanding skills has a large impact on productivity while also reducing self-employment and informality.

*Enhancing skills across the distribution significantly boosts productivity, particularly of the largest firms, increasing the demand for workers and their wages.* Increasing the quality of entrepreneurs expands the size and productivity of transformational firms. Informal entrepreneurs abandon their firms and engage in formal salaried work, as higher wages in the formal sector more than compensate for the value of forgone job amenities. The increase in skills and resulting expansion of employment in large firms largely explain the observed within- and cross-country correlation between gross domestic product (GDP) per capita and self-employment and makes this one of the most important policies for raising job quality, coverage, and growth.

4. Reforming the overall enabling environment is critical to raising productivity and job quality.

*Supporting the entry of high-quality entrepreneurs and enabling the best firms to reach their full potential—dictated by their entrepreneurial skill level—contribute to creating formal jobs and reducing informal ones.* The World Bank's Business Ready (B-READY) indicators suggest substantial distortions and market failures, the remedying of which is of a similar level of priority to improving skills as a policy goal.

*As an example, relaxing credit constraints for formal firms allows the most productive firms to expand, attracting workers with better wages and pushing out the least productive entrepreneurs.* Similar to the effect of expanding skills, relaxing credit constraints generates a stronger selection on entrepreneurs (both formal and informal), leaving only the best firms, raising formal sector productivity and the attractiveness of working there.

5. Support to microentrepreneurs increases informality, and the impact on overall productivity is negligible.

*Rising productivity in informal self-employment increases the sector's contribution to economy-wide productivity, but it also attracts workers*

*to informality.* An exogenous increase in the productivity of informal self-employed workers makes the sector more attractive to workers, reallocating formal salaried workers into informal self-employment. The overall effect on the economy is not clear and is not linear—that is, it depends on the magnitude of the productivity shock. What is clear is that informality increases. The increased competition for resources from the informal sector makes firms in the formal sector shrink and become less profitable.

*Reducing registration costs has negligible effects.* This result may be context dependent, but for the case of Colombia, registration costs are small relative to earnings and thus are not a main driver of sectoral choice. To be sure, registration costs are a net loss for the economy (they are modeled as a fixed cost that makes resources disappear from the economy) and hence, by definition, the economy is better off with lower costs. In economies where registration costs have been identified as a significant barrier to formality or firm growth, it is clearly optimal to reduce these costs. However, most microfirms have skill levels and fundamentals that mean they are not close to registering anyway, so the impact on growth is negligible.

*Increasing the penalty for microfirms' hiring informally has relatively small effects.* Because the overwhelming majority of firms in the informal self-employed sector do not have any employees, these types of policies have very little effect. The few informal firms that did have employees decrease in size, reducing demand for informal workers and depressing their wages. The welfare effect for the lowest skilled workers is negative. The economy enjoys a small positive effect as competition from informal firms weakens, allowing formal firms to expand very moderately. To be clear, the firms are modeled as being either formal or informal, and they hire all their workers formally or informally. The conclusions would be very different if large firms were allowed to hire both formally and informally, as in Ulyssea (2018). In that case, higher enforcement (through higher probability of capture or higher penalties) has very different implications. However, the finding that most informal salaried workers are found in unregistered firms with one or two employees suggests that the effect would, overall, be quite small.

6. Reforms have important complementarities that need to be taken into account when designing them.

*As the distribution of skills improves, labor market distortions become less important.* Even with high payroll and profit taxes, the increase in skills causes an overall increase in productivity, particularly for the largest,

most productive firms, thus expanding their demand for workers, raising formal wages, and drawing workers away from self-employment and informality. Obviously, the economy would improve without the distortions, but the higher skills of entrepreneurs tend to reallocate workers toward the most productive tasks and thus mitigating any labor distortions. There are many advanced economies with significant labor distortions, yet their self-employed sectors are much smaller than in less developed economies.

*Lessening distortions like taxes, or reducing the minimum wage, may have more muted effects than expected in an environment with credit constraints (or other binding constraints to growth of productive firms).* If the most productive firms face growth constraints, the removal of distortions does not produce as much reallocation as would be desired. The reallocation effect of workers abandoning self-employment and entering formal salaried jobs is contingent on the increase in formal wages. How much formal wages rise, in turn, depends on how much the most productive firms can grow.

## Policy Recommendations

### Invest in Skill Development of Workers and Entrepreneurs

While the model simplified the many dimensions of skills into a single element, directly linked to productivity, in reality there is a distribution of skills from basic to managerial to high-tech research capabilities that needs to be “shifted up” with improvements across the spectrum. This shift emerges as the most effective tool for increasing productivity and reducing informality. Several examples follow:

*Invest in educational systems that produce the skills demanded by employers.* World Bank Enterprise Surveys consistently show roughly 30 percent of LAC firms reporting they cannot expand because of shortfalls in qualified labor compared with roughly 10 percent in East Asia. In Chile, 60 percent of firms with over 1,000 workers report human capital shortages as a principal barrier to growth (Maloney, Vuletin, et al. 2025). Yet as seen in chapter 3, perhaps half of the informal salaried workers would prefer jobs in these firms. Remedying this tragic mismatch of skills would release existing dammed up creation of high productivity jobs and accelerate growth. It is also clear that less educated workers—whose productivity in the modern sector would be correspondingly low—are the

first ones rationed into informality by minimum wages and distortions. Improving basic and noncognitive skills (Cunningham and Maloney 2001) is thus critical to reducing informality. Remedying LAC’s perennial low education attainment, reforming training programs to be aligned with private sector needs, and developing short-cycle technical courses common in the advanced countries but less available in LAC (Ferreyra et al. 2021) are critical to achieving all three goals.

*Improve information flows.* Improving information on the skills that workers do have would facilitate better matches as well. A segment of workers may be queuing in informality because firms lack confidence in their capabilities due to lack of recognized credentials, or other signals of quality. Skills certification programs and short vocational courses linked directly to employers raise job placement rates and facilitate transitions into formal salaried work (Da Mata et al. 2025; Hirshleifer et al. 2014). These programs work when they combine training with matching and signaling mechanisms. Training without placement or credentialing has limited impact on transitions to formal employment. Hirshleifer and coauthors (2014) found that a large training program without any credentialing component in Türkiye raised formal employment by only about 2.6 percentage points initially and had no significant impact after three years, whereas Abebe et al. (2021) showed that adding a signaling mechanism through a skills certificate in Ethiopia produced much stronger effects—four years later, participants who received certificates earned roughly 25 percent higher wages and enjoyed more stable formal jobs, compared with those without certification.

*Target growth-oriented interventions to high-potential entrepreneurs.* Because most microfirms have low growth potential, productivity interventions should focus on the smaller group of firms capable of expanding (see Goswami et al. 2019). In Latin America, innovation funds, matching grants, and supplier-development programs that screen firms based on performance, innovation capacity, or export readiness generate measurable improvements in productivity and employment (Arráiz et al. 2013; Cirera and Maloney 2017; Crespi et al. 2015; Crespi et al. 2020). These programs work when they identify firms with the capability and desire to expand. They do not work when extended to businesses that optimally remain small.

*Intensive managerial coaching and technology-adoption programs also generate gains for firms with basic organizational capacity.* Evidence

from Kaizen-style<sup>2</sup> interventions in the region shows improvements in quality, process management, and productivity for established small and medium enterprises (SMEs) (see Cirera and Maloney 2017, for a review; Iacovone et al. 2022; Lage de Sousa et al. 2020; Shimada and Sonobe 2018 for Colombia). In India, productivity rose 11 percent in SME textile firms in one year (Bloom et al. 2013). In Colombia, higher management skills are associated with more innovation, product quality and exports (Iacovone et al. 2022). These programs require managerial commitment and a minimum scale; they are not suitable for most own-account workers. Recent work suggests that, though costly, group interventions can be more effective at a fraction of the cost of customary individual interventions.

At the highest technical levels, LAC's universities lag in quality, production of science, technology, engineering, and mathematics (STEM) graduates, and collaboration with the private sector. *Reclaiming the Lost Century of Growth* (Maloney, Cirera, et al. 2025) highlights these shortfalls in basic, managerial, and technical skills and in supporting institutions as a barrier to the technological adoption and growth take-off in LAC that are necessary to generate quality jobs that would pull workers from informality.

### **Support the Growth of Productive Formal Firms**

In addition to raising skills, reforms of the elements of the enabling environment that limit firm growth would help generate high-productivity jobs. As the World Bank B-READY indicators show, LAC lags importantly in many of these areas and should make the following reforms:

#### ***Ease Credit Constraints***

Allowing the most productive firms to access capital enables them to grow to their full potential, feeding into stronger demand for labor and higher wages in the formal salaried sector.

#### ***Reform Size-Dependent Policies***

As Eslava and Meléndez (forthcoming) have documented across LAC, many size-dependent policies still interfere with the natural growth trajectories of productive firms. Eliminating kinks and large discrete jumps in taxes, contributions, and mandates as firms expand allows for a more efficient growth path of firms, and avoids firms getting stuck at a suboptimal smaller level to avoid excessive costs.

Many LAC countries maintain simplified tax regimes for small (not micro) firms, with lower rates and reduced compliance requirements that apply only below a size threshold. The intent is to ease the burden for small and new firms, but the design creates a sharp jump in effective taxes at the cutoff that distorts firm behavior. Rather than growing and crossing into a higher-burden regime, firms near the threshold have incentives to remain artificially small, limiting hiring, investment, and expansion. Across nine LAC countries, the tax discount for firms just below the threshold ranges from 57 percent in Uruguay to 100 percent in Mexico, with Peru's Special Income Tax Regime (RER, by its Spanish acronym) offering a 77 percent discount at the cutoff (Azuara et al. 2019). Revenue collected through these regimes remains below 0.1 percent of GDP in most countries, suggesting they primarily reduce taxes on firms that were already registered rather than bringing new ones into the system. Administrative data from Peru illustrate the behavioral response: Firms cluster just below the RER revenue threshold, where crossing over triggers a sharp increase in taxes, but show no such clustering at lower thresholds where the jump is modest (Azuara et al. 2019). Similar patterns have been documented across the region. The core design problem is not the level of the rates but the abruptness of the transition, as smoother schedules that increase gradually with firm size would reduce these distortions without eliminating the relief intended for small firms.

### ***Tax Wealth not Firms***

High corporate income tax (CIT) rates in the LAC region, coupled with a challenging business environment, incentivize evasion and discourage investment. Vuletin (2025) advocates for reducing CIT rates to align with other emerging markets, improving enforcement, and exploring public-private partnerships for tax collection. Moreover, to better align taxation strategies toward a focus on growth it also proposes focusing on property taxes as a more viable form of wealth taxation, given the prevalence of tangible assets and the increasing feasibility of accurate valuation through technology, contrasting this with the difficulties of taxing highly mobile financial assets.

### ***Reduce Nonwage Labor Costs (Payroll Taxes and Mandates)***

High payroll taxes and mandatory contributions are a major reason formal labor is expensive, especially in the presence of minimum wages. Governments should review these costs and identify which can be cut or financed differently with minimal effect on workers' welfare. On the one

hand, the findings in chapters 1 and 3 clearly suggest that workers value formality less than its cost—generating a sizable implicit tax on the sector. On the other hand, the results of the model clearly indicate that reducing payroll taxes has significant positive effects on productivity and worker reallocation toward formal salaried jobs. Hence, an approach targeted toward benefits most valued by workers would sharply reduce costs and disincentives to formality. Given the rise in universal/noncontributory social protections, shifting financing for some social benefits from payroll taxes to broader tax financing would lower the marginal cost of hiring formally. Colombia's 2012 reform is an example: Contributions for social programs (like training and family funds) were removed from the payroll, effectively cutting the extra wage cost by 13.5 percentage points. This policy had small positive effects on formality, as found by Bernal et al. (2017). This debate is in early stages, and shifting to different funding sources poses challenges. Personal income taxes are progressive and underused in the region but at some level are linked to labor taxes. Property taxes are underused, progressive, and less likely to have deleterious effects on growth. The value added tax is already high in many countries of the region, and higher rates may risk creating informal markets in consumption. CIT rates are already high in the region and have been seen to precisely slow investment and job creation.

### **Rethinking Social Protection Systems**

The excessively Manichean division of the labor market into good formal jobs and bad informal jobs has impeded understanding the dynamics of the various sectors and obstructed a dispassionate view of the adequacy of the present system of labor regulation in LAC. Although the reform debate is often framed as a fight over workers' rights versus firm cost reduction, the fact is that the present system serves neither firm nor workers well. There is ample middle ground where both could be made better off.

This volume shows that workers are choosing across formal and informal sectors and hence are making cost-benefit analysis among different combinations of wages and amenities. Whereas increases in productivity will lead to higher wages in the formal sector and draw workers out of informal self-employment, the model suggests that altering the calculations of workers by increasing the relative value of formal job amenities can also lead to greater formality. This suggests that, among other considerations, systems should attempt to do the following:

***Align Benefits with What Workers Value***

One reason workers opt out of formality is they feel the benefits funded by payroll deductions are not relevant or worth the cost. This applies to the individual microfirm owner, but also would increase the incentives of large firms to engage in payments under the table. To address this disincentive, social security systems could add more immediate or customizable benefits that make formal jobs more attractive. In addition, there is clear evidence of misinformation and myopia that need to be taken into account. Possible directions to pursue:

***Offer modularity in benefits.*** Modularity in benefits allows workers to tailor their social protection package to their needs, making formal employment more attractive by offering flexibility and perceived value. For example, in Sweden's public pension system, parents can choose how to allocate child-rearing credits between partners, giving families agency over how caregiving years are recognized. In Colombia, some pilot programs have explored offering formal workers the option to contribute to additional benefit modules—such as enhanced health coverage or unemployment protection—beyond the basic package. Similarly, in Brazil's MEI (Microempreendedor Individual) regime, self-employed workers can opt into different levels of social security coverage, including maternity benefits or disability insurance, by adjusting their monthly contribution.

***Raise the quality of public services.*** Simply raise the value of received services relative to the cost that workers pay. Public pension fund balances are sometimes raided or inflated away, medical benefits can be poor, some subsidized programs—access to housing subsidies or clubs—are not relevant to the poor and hence are not worth contributing to. This can be seen as part of an overall agenda for improving governance (such as the World Bank's Government Analytics program<sup>3</sup>).

***Undertake informational campaigns on the benefits of formality.*** Chapter 3 of this book showed that workers have incorrect beliefs regarding the cost (in terms of their contributions) of formality—even for workers who are currently formal. Similarly, many workers did not believe that formality provided some benefits that are legally mandated. Informational campaigns designed to tackle misinformation and highlight the protection and benefits that formality bestows could enhance the perceived value and may alter the decisions of workers.

*Reduce the costs of registration and compliance.* Bureaucracy and red tape are a deadweight loss for society and can deter formality. A small business might handle informally paid workers simply because registering them and navigating pay slips, insurance, filings, and so on, is daunting. Governments must make it as easy as possible for firms and people to be formal employers (refer to box 4.1 on Argentina’s digital formalization). This includes online one-stop portals through which a firm can register a new employee with a few clicks, auto-calculating all deductions. Many countries have moved toward single windows. Several Latin American countries have implemented single-window systems to streamline business registration and labor formalization. Brazil’s *Simples Nacional* and *eSocial* platforms integrate tax, labor, and social security registration, significantly reducing compliance costs for micro and small enterprises. Studies such as Bruhn (2011) and Kaplan et al. (2011) found that Mexico’s system of fast opening of firms (SARE) reform increased registered businesses by approximately 5 percent. Cárdenas and Rozo (2009) reported similar gains in Colombia following the implementation of *Centros de Atención Empresarial* (CAE). In the Dominican Republic, Bobić et al. (2023) documented that the *Formálizate* platform led to a significant rise in microfirm formalization, especially in the commerce and tourism sectors. Chile’s *Tu Empresa en un Día* enabled over 100,000 firms to register within its first few years, dramatically reducing the time and cost to start a business.

*Increase the immediacy of benefits.* For instance, many workers care about short-term needs like housing, education, or credit. If a portion of an employee’s social contributions went into an individual “benefits account” employees could use funds for certain purposes while still working, rather than only at retirement. Singapore’s Central Provident Fund has aspects of this—individuals can use part of their savings for a home purchase or health care. Formal workers could have access to a portion of their social security contributions for down payment on a house or to pay for certified training courses. Likewise, unemployment insurance savings accounts—as exist in Chile—let workers see their contributions as personal funds (with some solidarity component), which increases the perceived value. Essentially, make some benefits more tangible in the short run. This does have a trade-off in the sense that forcing workers to contribute to pensions is precisely to avoid the myopia that will leave them with insufficient balances on retirement.

**BOX 4.1    Role of Digital Tools to Facilitate Formalization**

Is there a role for digital labor platforms in formalization policy? More specifically, can these platforms foster formalization in the context of emerging economies? Micha et al. (2024) provide a case study on Zolvers, the leading domestic work platform in Argentina, currently operating in Chile, Colombia, and Mexico as well. Their research shows that when domestic workers search for jobs through Zolvers rather than through traditional channels (whether informal intermediation, work agencies, or simply word of mouth), their chance of landing a formal job triples, controlling for workers' attributes.

The domestic service sector is a very relevant labor market in this context. Employing over 1 in 10 working women in Latin America (1 in 6 in Argentina), it features very high informality and very low wages in almost all countries in the region. Extensive research (both qualitative and quantitative) has shown this activity to pose a significant challenge for formalization.

In Argentina, a federal law passed in 2013 makes the registration of domestic workers in social security mandatory for employers in all cases. Registration grants workers a considerable set of labor rights, including paid sick and maternity leave, severance in case of unjustified termination by the employer, 13th-month salary, and others. It does not impose any cost on workers whatsoever nor does it prevent them from receiving social aid transfers. However, despite low costs and legal obligations, three out of four domestic workers remain unregistered, with scarce room for government agencies to enforce regulations.

Zolvers contributes significantly to a reduction in informality in this sector. It does so because of a virtuous combination of an institutional context, in which the costs of formalization foreseen for this occupation have been significantly lowered (in relation to the rest of economic activities), and a business model that sells services aimed at simplifying the bureaucratic procedures required from employers. Indeed, Zolvers offers employers a service consisting of managing workers' registration.

*(Continued on next page)*

#### **BOX 4.1 Role of Digital Tools to Facilitate Formalization** **(continued)**

On the one hand, the company offers to register workers on behalf of their clients, a service which is both optional and free of charge. On the other hand, an extra service named Zolvers Pagos allows the company to take care—again, on behalf of employers—of paying both workers' salaries and their social security contributions through authorized debits from the bank accounts of their clients. This service is also optional but involves a monthly fee charged to employers. The research shows Zolvers Pagos raises the probability of a job being registered even further than the sole use of Zolvers.

The study also explores the perceptions of households who hire domestic workers through the platform and use Zolvers Pagos. Among the findings, this service was repeatedly defined as the “perfect solution” to the concerns employers have on the bureaucratic procedures and the time and effort required for managing workers' registration. Employers emphasize that, for what they consider a low monthly cost, the platform “takes care of everything.” Almost unanimously, the employers who used Zolvers Pagos at the time of the interview praised the practicality of a system that “frees” and “simplifies” (“I use it, and again, it simplifies everything”; “They do everything by automatic debit from my bank account, so I am freed from everything”). In addition, the “clarity regarding the cost” is an important factor in the hiring of this service. Finally, respondents highlighted receiving a monthly email from the company detailing the employee's hours worked, the final amount due, and the debit date.

However, even though Zolvers helps reduce the cost and complexity of formalization, many employers still choose not to formalize domestic workers. This is largely due to persistent structural and behavioral barriers: the prevalence of short-hour jobs that employers perceive as casual “help” rather than formal employment; a lack of information or misconceptions about the costs and procedures involved; and the optional nature of Zolvers' formalization tools, which allows employers to bypass them. These factors continue to limit the platform's full potential to close the informality gap, especially in a sector historically marked by high levels of unregistered labor.

*Source:* Prepared by Francisco Trombetta.

***Ensure Design That Acknowledges Workers' True Objectives and Behavior Patterns***

The goal of the first three chapters is precisely to illustrate what these are and hence how best to cover these workers in a way that doesn't distort incentives. Two examples:

*Job dynamics and pension design.* Many pension systems, based on advanced countries' labor markets, assume strong job attachment and long tenures. However, low-skilled workers have been seen to have relatively short tenure and frequently ping-pong between formal sector jobs, and many are saving up to open their own businesses (Balán et al. 1973). Hence, many workers will contribute to pension plans without ever reaching the vesting periods required to receive a pension, making contributions a pure tax and a disincentive to formality. An alternative model is a notional defined contribution system (like Sweden's), where every contribution accrues entitlement in an account either public or private, so an informal worker considering formal work can see "if I contribute for five years, I'll get X amount of pension, even if I stop after that."

In the case of the potential self-employed, the aim of resolving myopia through mandated contributions conflicts somewhat with the goal of saving to open the firm. Hence, again, that is an incentive to informal work.

Policy makers can consider integrating noncontributory pensions (general tax-financed) with contributory ones. For instance, with a guarantee that if a worker has at least, say, 10 years of contributions, their old-age benefit will be higher than the minimum social pension by some margin. In this way, workers know that contributing always has a positive return.

*Family optimization and benefits provision.* This book highlights a disconnect between the focus on individual workers in the informality debate and the fact that these workers manage income, benefits, and social protections at the family level. This suggests both less of a focus on contract formalization per se and more on ensuring that legislation is not discouraging formalization.

- *Health care.* Family coverage by health benefits implies that a second formal worker in the household is paying contributions for no additional benefit. Shifting to universal provision obviates this problem, but an intermediate step would be a spousal contribution waiver or, for higher income workers, a tax deduction for double payments.
- *Pensions.* Preparing for retirement is also done at the family level. If one member has a good pension, a second may not be necessary. Further, chapter 1 showed that investing in the microenterprise and handing it

off to a son or daughter who will then support the parent is a common strategy and has the advantage of maintaining control of savings.

- *Childcare and family-friendly policies.* Throughout the volume, women report entering informality for the flexibility to balance family and work responsibilities. Clearly, low-cost childcare lessens this imperative (Ryu 2020), although for the informal worker, the overall social welfare gains of paying a low-skill caregiver so the low-skill mother can go to work may not be so clear. The net effect of a subsidized policy might be simply an income transfer, which may be better done in other ways. Alternatively, adding greater flexibility to work arrangements, and in particular part-time work, may be a better solution. As chapter 1 of this volume showed, across the development process, workers progressively find that their formal jobs become less of a constraint on managing family responsibilities. Governments as employers can lead by example offering part-time formal roles, remote work options, and so on, to show the private sector it can be done.

### **Facilitate Entry of Young Workers into Formality**

As documented in chapter 3 of this volume, most young workers are in the informal salaried sector—trying to break into the formal labor market. Even after reforms focused on investing in skills, improving the enabling environment for firms, and redesigning social protections systems, it is likely that young inexperienced workers will face additional entry barriers into the labor market.<sup>4</sup> Young workers need to reveal their type (how productive they are), but employers may be wary of experimenting, particularly if formal hiring costs are high. Easing the entry of these young workers may have significant long-term benefits as workers engage in formality early in their careers. Some illustrative policy examples follow:

*“First Formal Job” programs.* Offer targeted, temporary wage subsidies or tax breaks to employers who hire young workers formally. By covering part of the wage or social security contributions for, say, the first year of employment, governments can reduce the perceived risk and cost of giving an inexperienced worker a formal job. For instance, Chile’s *Subsidio al Empleo Joven* pays a subsidy for low-income young workers, and similar measures exist in other countries. A recent successful example is Mexico’s experimental subsidy (a direct cash bonus to the worker for formal employment), which led to higher formal hiring and retention of youth (Abel et al. 2022). There are important pitfalls to avoid, and programs should be carefully designed and pilot-tested: Make the subsidy time-bound (6–12 months) and focus on truly new formal hires (to avoid subsidizing workers who would have been hired anyway). One model is to

pay the subsidy only for workers who were previously studying, informal, or unemployed. The subsidy level should be meaningful but not excessive, just enough to tip the scales in favor of formal hiring and to give the youth a take-home pay boost so formality looks attractive to both parties relative to an informal job.

*Extending the trial period of formal contracts for entrants.* As modeled in Gonzalez-Prieto and Oue (forthcoming), the learning process to identify a good worker currently happens in the informal sector because hiring costs are lower and the worker is easy to dismiss if revealed not to be productive enough. One way of lowering the costs of experimentation for employers is having (sufficiently long) trial periods in formal contracts during which costs are lower and dismissal is easy. Currently, there is a wide range in the length of the trial period (0–12 months) in the region. It is essential that the trial period be long enough for the learning process to unfold. Effective enforcement will be key to avoid enabling firms to game the system. Firms often use changes in contracts, new contracts, recycling trial periods, and other strategies to avoid costs.

### **Adapt Labor Market Regulations to New Modes of Work**

The following examples demonstrate how labor market regulations could be changed to recognize new modes of work.

*Flexible work arrangements within formality.* Rigid labor regulations (inflexible working hours, difficulty in hiring part-time or seasonal workers, high severance costs) often push firms and workers to choose informal arrangements that offer more flexibility (see Freeland et al. 2025). One solution is to allow part-time, temporary, and gig work to be formalized with prorated cost and benefits.

*In a modern economy, more people value flexible work, and moving toward systems that offer flexibility and protection is recommended.* Uruguay, for instance, created a simplified regime for day laborers in agriculture in which employers can purchase “workdays” worth of social contributions in advance for seasonal workers, so even short stints are recorded toward benefits (Ministerio de Trabajo y Seguridad Social 2014). Reducing the minimum number of hours employers require for formal work decreases informality in a setup in which formal employment is designed for full-time workers and there is a partially fixed cost of hiring formal workers (Leyva 2025). A 2017 labor reform in Brazil removed constraints on flexible work schedules. It led to an increase in formal employment, particularly for women, who transitioned from informality to formality in part-time positions (Srebot 2026).

*Expand access to social protection through flexible contribution mechanisms.* Traditional contributory systems impose high minimum payments and strict vesting periods that discourage participation among own-account workers with irregular or low earnings. Research shows that proportional benefits and flexible contribution schedules raise participation relative to all-or-nothing designs (Giles et al. 2025; Joubert 2015). Systems with rigid monthly obligations function as a tax on liquidity-constrained workers and lead to low enrollment (The SELFIES program in Brazil tries to address some of these issues, see Muralidhar et al. 2025).<sup>5</sup>

*Digital microcontribution platforms offer a way to match contributions to income flow.* Programs that allow contributions tied to each transaction, or small and frequent payments via mobile devices, reach workers whose earnings vary day to day (Nutsubidze and Nutsubidze 2024). These systems work because they align contribution timing with income volatility. They fail when monthly obligations exceed the typical cash available to self-employed workers. Policy makers can partner with platform companies to pilot ways of extending social insurance to gig workers. For example, India and some African countries<sup>6</sup> are exploring having platforms deduct a small percent of each fare or task payment into a social insurance fund for the worker (possibly matched by government).

## Data Needed

This volume provides new findings based on the results of data gathering efforts and new methodologies to understand how workers are making occupational and sectoral decisions. It is of paramount importance to replicate these efforts across the region. Understanding what workers value and which benefits are available—even in informal arrangements or through family—is key to redesigning efficient social security systems with the right incentives. Survey modules taking stock of the amenities available in different occupations and sectors can help redefine and optimize labor regulations. Reinstating modules for self-employed and microentrepreneurs will support policy makers in distinguishing the transformational entrepreneurs who are constrained by the enabling environment and business climate from the own-account workers who are perfectly content with their business and have no intentions to grow.

LAC has been in the vanguard of new types of surveys. Mexico's National Survey of Micro-Enterprises in 2010–12 remains a model for understanding microfirm behavior but has not had a follow-up in a decade. Brazil's National Household Sample Survey (PNAD) included a question about the

motivations for entering informal self-employment and salaried work, but there has been no update in 36 years, despite major changes in economic structure and labor regulation.

## Conclusions

In sum, understanding the rationale of informality in a dispassionate way is critical to designing efficient policy to reach the three social goals laid out in the introduction: expanding social protection coverage, creating high-quality jobs, and spurring dynamic growth.

The book argues that informality, defined as workers uncovered by job-linked protections, is fundamentally a microfirm phenomenon and that these entrepreneurs, like their advanced-country peers, are largely entering for opportunity with few aspirations for growth. The evidence suggests that in LAC, and indeed most of the world, the entrepreneurs compare the “utility”—wages plus the value of amenities—of self-employment with formal salaried employment and that they highly value independence and being their own boss. Despite having to piece together social protections, they consider these jobs to be of equal quality to formal employment. This is less true among the informal salaried workers, for whom there is more evidence of segmentation driving up the share of necessity entrants, as well as evasion of norms—for instance, through partial compliance or payments under the table. As stressed throughout the volume, to say that many workers are entering informality for opportunity reasons does not imply they are well off or happy, only that the options in the formal sector for which they’re qualified are not better.

In an attempt to order the discussion and provide a unified approach that incorporates both the opportunity and necessity natures of informality, the framework developed here incorporates both sectoral choice decisions and the constraints introduced by distortions in labor and product markets. Perhaps paradoxically, the extensive evidence and simulations presented here suggest that rationalizing the developing-country labor market dictates moving beyond narrow and piecemeal programs to combat informality per se—for instance, microfirm registration programs—to a more comprehensive approach. Rather, there is a need to advance on three core agendas: raising skills across the human capital spectrum, reforming the enabling environment to raise large firm productivity and reduce segmentation, and revisiting the design of social protection systems to better align them with what workers and firms value. It is these fundamentals that drive the allocation of labor between larger firms and microenterprises that in turn determines productivity, job quality, and coverage by social protections that will raise the well-being of workers in developing countries.

## Notes

1. Known as the Kaitz Index.
2. Kaizen-style interventions are intensive, hands-on management and process-improvement programs adapted from Japanese manufacturing practices. In development and entrepreneurship policy, they typically involve structured managerial coaching, on-site diagnostics, and iterative problem solving aimed at improving organizational capabilities rather than providing capital or generic training.
3. The World Bank's Government Analytics program, led by the Bureaucracy Lab—a joint initiative of the Development Impact Evaluation (DIME) group and the Governance Global Practice—supports governments in using their administrative and survey data to improve public administration through evidence-based decision-making.
4. Youth unemployment and informality tend to be higher than other groups around the world—even in developed economies. Junior Achievement Américas and ManpowerGroup (2024) found that nearly two-thirds of young people believe the primary reason they cannot find formal jobs is their lack of work experience. Employers echo this concern from their side: In the same survey, 18 percent of companies cited “lack of experience” as a key difficulty in hiring young candidates. This is also consistent with the fact that younger workers experience higher unemployment rates than the overall population.
5. The SeLFIES (Standard-of-Living Indexed, Forward-starting, Income-only Securities) program is built around worker ownership: Individuals accumulate government-guaranteed retirement bonds that each promise a predefined, inflation-protected income stream in retirement. Contributions can be made flexibly over time and are fully portable across jobs and employment statuses. Crucially, the value of accumulated savings is always expressed in terms of the monthly retirement income they would generate, rather than as an abstract account balance. This income-based framing increases the visibility and transparency of retirement saving, helping workers with irregular careers understand what their contributions buy and adjust saving decisions as earnings fluctuate (Muralidhar et al. 2025).
6. Countries include Côte d'Ivoire, the Arab Republic of Egypt, Morocco, Nigeria, and Zambia. See a brief review at ISSA (International Social Security Association), “Reforms in Africa to Extend Contributory Old-Age Pensions to Difficult-to-Cover Groups,” March 27, 2023, <https://www.issa.int/analysis/reforms-africa-extend-contributory-old-age-pensions-difficult-cover-groups>.

## References

- Abebe, G., A. S. Caria, M. Fafchamps, P. Falco, S. Franklin, and S. Quinn. 2021. “Anonymity or Distance? Job Search and Labour Market Exclusion in a Growing African City.” *The Review of Economic Studies* 88 (3) 1279–310.
- Abel, M., E. Carranza, K. Geronimo, and M. E. Ortega. 2022. “Can Temporary Wage Incentives Increase Formal Employment? Experimental Evidence from Mexico.” IZA Discussion Paper, 15740. IZA@LISER Network, Luxembourg Institute of Socio-Economic Research.

- Arráiz, I., F. Henríquez, and R. Stucchi. 2013. "Supplier Development Programs and Firm Performance: Evidence from Chile." *Small Business Economics* 41 (1): 277–93. <https://doi.org/10.1007/s11187-012-9428-x>.
- Azuara, O., R. Azuero, M. Bosch, and J. Torres. 2019. "Special Tax Regimes in Latin America and the Caribbean: Compliance, Social Protection, and Resource Misallocation." IDB Working Paper Series IDB-WB 970, Inter-American Development Bank. <https://doi.org/10.18235/0001586>.
- Balán, J., H. L. Browning, and E. Jelin. 1973. *Men in a Developing Society: Geographic and Social Mobility in Monterrey, Mexico*. University of Texas Press.
- Bernal, R., M. Eslava, M. Meléndez, and A. Pinzón. 2017. "Switching from Payroll Taxes to Corporate Income Taxes: Firms' Employment and Wages after the 2012 Colombian Tax Reform." *Economía* 18 (1): 41–74.
- Beylis, G., A. Garin, N. Gonzalez-Prieto, and D. Koustas. 2026. "Valuing Alternative Work Arrangements: Evidence from 7 Countries with High Rates of Informality." Policy Research Working Paper, World Bank.
- Beylis, G., W. Maloney, and A. Zambrano. 2026. "Self-Employment and Development: Job Amenities, (Mis)allocation, and Informality." World Bank.
- Bloom, N., B. Eifert, A. Mahajan, D. McKenzie, and J. Roberts. 2013. Does Management Matter? Evidence from India. *The Quarterly Journal of Economics* 128 (1): 1–51.
- Bobić, V., L. Delgado, B. De León Beato, M. P. Gerardino, M. Hennessey, and J. Martínez-Carrasco. 2023. *El impacto de la ventanilla única para el registro formal de empresas en República Dominicana*. Evaluaciones de impacto, Banco Interamericano de Desarrollo. <https://doi.org/10.18235/0005089>.
- Bruhn, J. G. 2011. *The Sociology of Community Connections*. 2nd ed. Springer. doi:10.1007/978-94-007-1633-9.
- Cárdenas, M., and S. Rozo. 2009. "Informalidad empresarial en Colombia: Problemas y soluciones." *Desarrollo y Sociedad* 63: 211–43.
- Cirera, X., and W. F. Maloney. 2017. *The Innovation Paradox: Developing-Country Capabilities and the Unrealized Promise of Technological Catch-Up*. World Bank. <http://hdl.handle.net/10986/28341>.
- Crespi, G., L. F. Garone, A. Maffioli, and M. Melendez. 2015. "Long-Term Productivity Effects of Public Support to Innovation in Colombia." *Emerging Markets Finance & Trade* 51 (1): 48–64. <https://www.jstor.org/stable/26752499>.
- Crespi, G., L. Figal Garone, A. Maffioli, and E. Stein. 2020. "Public Support to R&D, Productivity, and Spillover Effects: Firm-Level Evidence from Chile." *World Development* 130: 104948. <https://doi.org/10.1016/j.worlddev.2020.104948>.
- Cunningham, W. V., and W. F. Maloney. 2001. "Heterogeneity Among Mexico's Microenterprises: An Application of Factor and Cluster Analysis." *Economic Development and Cultural Change* 50 (1): 131–56.
- Da Mata, D., R. Oliveira, and D. Silva. 2025. "Who Benefits from Job Training Programs? Evidence from a High-Dosage Program in Brazil." *Journal of Development Economics* 175: 103476. <https://doi.org/10.1016/j.jdevco.2025.103476>.
- Eslava, M. and M. Meléndez. Forthcoming. "Shaping the Playing Field for Economic Growth: Critical Regulatory Frameworks for Business in Latin America." World Bank.
- Ferreira, M. M., L. Dinarte, S. Urzúa, and M. Bassi. 2021. *The Fast Track to New Skills: Short-Cycle Higher Education Programs in Latin America and the Caribbean*. World Bank. <http://hdl.handle.net/10986/35598>.

- Freeland, E., A. Garin, D. Koustas, and L. Tô. 2025. "Why Do People Choose Alternative Work Arrangements? Evidence from a Survey Experiment." Presented at the 2025 Annual Meeting of the American Economic Association, January 3, 2025. <https://www.aeaweb.org/conference/2025/program/1288>.
- Giles, J., C. Joubert, and T. Tanaka. 2025. "Participation in Pension Programs in Low- and Middle-Income Countries." *The World Bank Research Observer*. <https://doi.org/10.1093/wbro/lkaf004>.
- Gonzalez-Prieto, N., and E. Oue. Forthcoming. "Entry, Screening, and Transition: Understanding Young Informal Salaried Work in LAC."
- Goswami, A. G., D. Medvedev, and E. Olafsen. 2019. *High-Growth Firms: Facts, Fiction, and Policy Options for Emerging Economies*. World Bank.
- Hirshleifer, S., D. McKenzie, R. Almeida, and C. Ridao-Cano. 2014. "The Impact of Vocational Training for the Unemployed: Experimental Evidence from Turkey." IZA Discussion Paper 8059, Institute for the Study of Labor (IZA). <https://ftp.iza.org/dp8059.pdf>.
- Iacovone, L., W. Maloney, and D. McKenzie. 2022. "Improving Management with Individual and Group-Based Consulting: Results from a Randomized Experiment in Colombia." *The Review of Economic Studies* 89 (1): 346–71. <https://doi.org/10.1093/restud/rdab005>.
- Joubert, C. 2015. "Pension Design with a Large Informal Labor Market: Evidence from Chile." *International Economic Review* 56 (2): 673–94. <https://doi.org/10.1111/iere.12118>.
- Junior Achievement Américas and Manpower Group. 2024. *Talento joven y empresas: Oportunidades y desafíos 2024*. Regional Research Report.
- Kaplan, D. S., E. Piedra, and E. Seira. 2011. "Entry Regulation and Business Start-Ups: Evidence from Mexico." *Journal of Public Economics* 95 (11–12): 1501–15. <https://doi.org/10.1016/j.jpubeco.2011.03.007>.
- Lage de Sousa, F., M. Canêdo-Pinheiro, B. Pereira Cabral, and G. E. de Sousa Ferreira. 2020. "Impact of Kaizen-Like Practices in the Brazilian Manufacturing Sector." In *Workers, Managers, Productivity: Kaizen in Developing Countries*, edited by A. Hosono, J. Page, and G. Shimada, 221–43. Palgrave Macmillan. [https://doi.org/10.1007/978-981-15-0364-1\\_10](https://doi.org/10.1007/978-981-15-0364-1_10).
- Levy, S. 2008. *Good Intentions, Bad Outcomes: Social Policy, Informality, and Economic Growth in Mexico*. Brookings Institution Press.
- Leyva, A. M. 2025. "Job Flexibility and Informality." University of Warwick.
- Lucas, R. E., Jr. 1978. "On the Size Distribution of Business Firms." *Bell Journal of Economics* 9 (2): 508–23.
- Maloney, W. F., X. Cirera, and M. M. Ferreyra. 2025. *Reclaiming the Lost Century of Growth: Building Learning Economies in Latin America and the Caribbean*. Latin American and Caribbean Studies, World Bank.
- Maloney, W. F., G. Vuletin, P. Garriga, and R. Morales. 2025. *Transformational Entrepreneurship for Jobs and Growth*. Latin America and the Caribbean Economic Review (October). World Bank. <http://hdl.handle.net/10986/43741>.
- Maloney, W. F., J. A. Zambrano, G. Vuletin, G. Beylis, and P. Garriga. 2024. "Taxing Wealth for Equity and Growth." Latin America and the Caribbean Economic Review (October), World Bank.
- Micha, A., M. Trombetta, and F. Pereyra. 2024. "Digital Labor Platforms, Domestic Work and Formalization: Evidence from Argentina." Documento de trabajo RedNIE N8330.

- Ministerio de Trabajo y Seguridad Social. 2014. *Guía sobre derecho del trabajo rural*. Unidad de Empleo Rural.
- Muralidhar, A. 2025. “A Realistic, Heterogeneous (Principal-) Agent Asset Pricing Model: With Asset Allocation and Risk-Adjusted Performance.” Paper written August 23, 2025. Available at <https://ssrn.com/abstract=5412218>.
- Nutsubidze, T., and K. Nutsubidze. 2024. “Voluntary Private Pension Reform in Georgia: Opportunities for Employee Pensions Development.” CRR Working Paper 2024-6, Center for Retirement Research at Boston College.
- Ryu. 2020. “The Effect of Compulsory Preschool Education on Maternal Labour Supply.” *Journal of Development Studies* 56 (7): 1384–1407. <https://doi.org/10.1080/00220388.2019.1677890>.
- Shimada, G., and T. Sonobe. 2018. “Impact Evaluation of Scale Up of Small and Medium Enterprises Through Training on Managerial Capital.” JICA-RI Working Paper 173, Japan International Cooperation Agency Research Institute.
- Srebot, C. 2026. “Labor Market Flexibility and Gender Heterogeneity in Labor Allocation.” SSRN 6308422.
- Ulyssea, G. 2018. “Firms, Informality, and Development: Theory and Evidence from Brazil.” *American Economic Review* 108 (8): 2015–47. <https://doi.org/10.1257/aer.20141745>.
- Ulyssea, G. 2020. “Informality: Causes and Consequences for Development.” *Annual Review of Economics* 12: 525–46.
- Vuletin, G. 2025. *Rethinking Taxation for Growth in Latin America and the Caribbean: Objectives, Behavioral Responses, and Technological Advances*. World Bank. <http://hdl.handle.net/10986/43647>.





**D**rawing on new data and modeling approaches, *Rationalizing Informality: Social Protection, Job Quality, and Growth* offers a fresh view of the nature and raison d'être of the informal sector. Rather than portraying it as the disadvantaged sector of dysfunctional labor markets, the book emphasizes the continuity of worker behavior and labor force structure across the development process.

While acknowledging that a minority of workers is rationed out of formal sector jobs, the evidence shows that the majority engage in the same job calculus as their advanced-country counterparts. In particular, the self-employed who form the backbone of the informal sector weigh amenities such as independence and flexibility against the costs and benefits of formality when selecting sectors. The volume introduces the first measures of these nonwage dimensions of job quality and finds that workers value them greatly, while valuing formal sector benefits far less than their cost to firms and workers.

Bringing these insights together, *Rationalizing Informality* offers a unified model that incorporates both the forces pushing workers into informality and those pulling them toward it, and it quantifies the impact of policies meant to alter those forces. Ultimately, the book argues that attaining social progress, better jobs, and growth requires looking beyond informality and embracing a comprehensive set of reforms to strengthen both worker's and entrepreneur's skills, raise the dynamism of the formal sector, and better align social protection systems with worker and firm needs.



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