

Payments Under the Table in Latin America

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Abstract

This paper studies an overlooked dimension of labor informality in Latin America: *payments under the table* (PUT), when registered firms pay part of registered workers' compensation off the books. We conduct the first multi-country large-scale survey designed to measure this practice among formal employees in Brazil, Argentina, Mexico, Colombia, Chile, and Peru, covering countries that account for over two-thirds of Latin America's population. Pooling all countries together, we find that about 17% of formal employees report receiving some part of their compensation under the table. Among PUT receivers, roughly 23% of labor earnings are paid off the books, implying that about 3.9% of formal-sector payroll is disbursed outside the official reporting system. PUT is more prevalent among higher-income workers, in smaller establishments, in family businesses, and among workers who are themselves managers. It is also strongly associated with lower tax morale, and workers frequently cite employer payroll taxes, minimum wages, and compensation for extra hours as important reasons for the practice. These results show that informality in developing countries extends beyond the traditional formal-informal divide and that an

important share of noncompliance takes place within formally registered employment relationships.

1 Introduction

Informality is a prevalent feature of labor markets in developing countries. Informal economic activity has been of interest to economists and policymakers alike, since it reduces tax collection, complicates the allocation of welfare expenditure, and excludes workers from the social security system. In addition, informality is often associated with lower productivity and earnings, leading to concerns regarding the potential misallocation of resources. Traditionally, informal employment has been defined as workers who are not registered with tax authority or social security. These workers could be working in fully informal firms or as off-the-book workers in a registered firm (Ulyssea, 2018).

However, the current literature has often neglected the possibility of informal connections existing at the wage level between registered firms and registered workers by focusing on a dichotomous definition of an informal worker. This omission aligns with the notion that income sources reported by third parties are less susceptible to evasion, as collusion between the involved parties is challenging to sustain (Kleven et al., 2016). Recent research has challenged this idea, however, showing that informal ties between formal workers and firms are prevalent in developing countries' labor markets, where formal workers receive part of their wages *under the table* (Feinmann et al., 2024; Franco, 2022). Nonetheless, measuring this practice is challenging, because by definition it does not show up in administrative data and, differently from traditional informality, it is not present in the vast majority of standard household and labor force surveys.

In this paper, we study the prevalence, causes, and consequences of *payments under the table* (henceforth PUT) in several Latin American countries. We define this practice as when formal workers in registered firms receive part of their wages off-the-books.¹ We conduct the first multi-country large-scale survey on this topic,

¹This practice receives different names across the region, for example in Argentina it is often referred to as *pagos en negro* and in Brazil as *pagamentos por fora da folha*.

covering Brazil, Argentina, Mexico, Colombia, Chile, and Peru, being representative of over two-thirds of Latin America’s population. This allows us to document the prevalence of PUT in the region, understand how institutions affect this practice, and estimate its consequences on government revenue and income inequality.

Our findings show that PUT are quantitatively important. About 17 percent of formal employees report receiving at least some part of their earnings under the table. Among PUT receivers, around 23 percent of labor earnings are paid off the books. Combining the extensive and intensive margins, we estimate that approximately 3.9 percent of formal-sector payroll is disbursed as PUT. A key result is that PUT does not resemble standard worker-level informality: rather than being concentrated among low-income workers, the share of payroll paid under the table rises with income.

We also document several patterns that shed light on the mechanisms sustaining PUT. Workers in smaller establishments are more likely to receive under-the-table payments, and PUT is especially prevalent in family businesses and among workers who are themselves managers. These patterns are consistent with the idea that PUT relies on collusion, trust, or weaker internal monitoring within the employment relationship. In addition, workers with lower tax morale report larger PUT shares, and respondents frequently cite employer payroll taxes, minimum wages, and compensation for extra hours as important reasons for the practice.

PUT is present in all six countries in our sample, but its prevalence differs sharply across them. The practice is most widespread in Argentina and Brazil, followed by Mexico and Peru, and is substantially less common in Chile and Colombia. These cross-country differences suggest that PUT reflects a common form of evasion within formal employment, but that its spread depends importantly on country-specific institutional and labor-market conditions.

A central challenge in studying PUT is measurement. Since it involves an illegal and sensitive practice, workers may be reluctant to disclose it directly. To address this issue, our survey combines direct questions with a list experiment and with less direct

questions about whether respondents know coworkers or acquaintances who receive PUT. Reassuringly, the prevalence estimated from the list experiment is close to the direct self-report estimate in the pooled sample, suggesting that direct responses are informative despite the sensitivity of the topic.

We then provide a simple aggregate calculation of the tax revenue implications of PUT. In a counterfactual exercise where under-the-table payments are fully brought onto the books, we estimate that the combined payroll tax and personal income tax revenue gain amounts to 0.63 percent of GDP across the six countries. This average masks substantial heterogeneity across countries. The implied gains are particularly large in Brazil, at 0.93 percent of GDP, Argentina, at 0.76 percent, and Mexico, at 0.55 percent. Peru shows a more moderate gain of 0.16 percent, while the implied gains are much smaller in Chile and Colombia, at 0.06 and 0.13 percent, respectively. These results suggest that PUT is not only an important form of labor-market noncompliance, but also a quantitatively meaningful source of forgone government revenue in several countries in the region.

This paper contributes to several strands of literature. First, we contribute to the literature that studies informality in labor markets in developing countries. There is a vast amount of research studying the spread and consequences of informality ([Williams and Lansky, 2013](#); [Bitran, 2014](#), see [La Porta and Shleifer, 2014](#) and [Ulyssea, 2020](#) for reviews on the literature). Most of these papers emphasize a binary distinction between formal and informal employment, where informal employment is defined as workers not registered with tax authorities or social security. This paper extends the definition of informal work arrangements by examining the extent of compliance by formal firms in reporting wages for formal workers.

The practice of paying wages for formal workers off-the-books has received far less attention, with only a few recent studies have found suggestive and indirect evidence of PUT. [Kumler et al. \(2020\)](#); [Franco \(2022\)](#) highlight discrepancies between administrative data and household surveys that can be interpreted as evidence of wage

underreporting. Additionally, (Bíró et al., 2022; Gavoille and Zasova, 2023) document cases where minimum wage policies act as a potential backstop on underreporting, indicating limits to firms’ ability to conceal wages.

Direct evidence of PUT is still relatively rare but growing. For example, (Bjørneby et al., 2021) show that an audit in Norway revealed collusive tax evasion between firms and workers. (Williams and Padmore, 2013) survey workers in developed countries where they explicitly ask questions related to “envelope wages”, they find that the practice is widespread in eastern European countries but are muted on the mechanisms that enable PUT. Meanwhile, (Feinmann et al., 2024) combine survey data and administrative records to provide clear evidence of this practice in Brazil. This paper builds on this emerging literature by providing direct evidence of PUT across multiple Latin American countries. It contributes to the understanding of the prevalence, mechanisms, and determinants of this practice, analyzing cross-sectional differences to uncover the incentives that drive firms and workers to engage in such arrangements.

The rest of the paper proceeds as follows. Section 2 discusses the broader labor-market context in Latin America. Section 3 describes the survey design, measurement strategy, and reweighting procedure. Section 4 presents pooled evidence on the prevalence and correlates of PUT. Section 5 examines how these patterns vary across countries. Section 6 concludes.

2 Context

Latin American countries differ in their institutional arrangements, policy histories, and political trajectories. Yet the region shares several structural features that shape its economic and social development.

A defining characteristic of labor markets across Latin America is the coexistence of formal and informal employment. Formal jobs are typically registered with the authorities and provide access to social security systems, including pensions, health insurance, and unemployment protection. Informal work, by contrast, falls outside

these systems. It includes unregistered wage employment and self-employment in low-productivity activities. While the share of informal employment varies across countries, informality remains widespread and shapes key aspects of labor market performance, including income security and access to basic protections. (See [Levy and Schady \(2013\)](#) for a discussion on informality and social protections across Latin America).

Across the region, expanding formal employment has been a longstanding policy objective—promoted both by national governments and multilateral institutions. The push for formalization is often framed not only as a strategy to improve job quality and extend social protections, but also as a means to strengthen fiscal capacity through broader tax and contribution bases. In this view, increasing formality is seen as integral to both inclusive growth and state-building.

This policy focus has generated a large body of research on the causes and consequences of labor market informality. Scholars have examined a wide range of questions, including the determinants of workers’ transitions between formal and informal jobs, the role of regulation and enforcement, and the implications of informality for productivity, inequality, and fiscal outcomes.

This institutional dualism has generated a set of incentives that shape the behavior of both workers and firms. The sharp divide between formal and informal employment—particularly in access to social insurance and the burden of labor taxes—creates pressures to circumvent formal obligations. As a result, it is common to observe practices such as paying part of a worker’s salary “under the table” or combining registered employment with unreported earnings. These hybrid arrangements allow firms to lower labor costs and workers to retain access to contributory benefits, while avoiding the full costs of formality. However, they also undermine compliance, distort the intended functioning of labor and social protection policies, and complicate efforts to strengthen state capacity.

3 Data

In this section, we describe the data used in the paper. We collected original survey data on formal employees in six Latin American countries: Brazil, Argentina, Mexico, Colombia, Chile, and Peru. The Brazil data come from the same survey wave used in [Feinmann et al. \(2024\)](#), and we extended that survey design to the other five countries. All fieldwork took place during 2023.² Our goal is to obtain estimates that are representative of each country’s formal sector.

3.1 Survey on PUT

To investigate the prevalence of payments under the table (PUT) in Latin America, we conducted a series of online surveys using vendor-provided panels in each country. The target population is formal-sector employees in their main job. Self-employed workers are excluded, public-sector workers are included, and part-time workers are excluded. Our final sample contains several thousands of formal-sector workers across the six countries.

A central challenge in measuring PUT is that it is a sensitive and illegal practice. Workers may therefore be reluctant to report it directly, implying that direct survey measures may understate its true prevalence. To address this concern, we follow the survey design in [Feinmann et al. \(2024\)](#) and use two complementary approaches.

First, at the beginning of the survey, we randomly assigned respondents to a list experiment. Respondents in both groups were shown a short list of general statements about workplace experiences and were asked only how many applied to them, not which ones. The treatment group received one additional sensitive statement indicating that part of the worker’s salary is paid formally through payroll and part informally outside payroll, so that taxes and social contributions are paid only on the reported portion. The wording of the statements varied slightly across countries to reflect local terminology, but the structure of the experiment was the same in all

²The Brazilian survey wave used in [Feinmann et al. \(2024\)](#) was fielded in March 2022.

cases.

Second, later in the survey we asked direct questions about PUT. Following [Feinmann et al. \(2024\)](#), we asked workers whether part of their wage in their main job is disbursed under the table. For respondents who reported receiving PUT, we then asked what share of their total labor earnings is paid in this way. This allows us to study both the extensive margin of PUT (whether the worker receives any off-the-books compensation) and the intensive margin (the fraction of earnings paid off the books, conditional on receiving PUT).

We also asked a sequence of increasingly direct questions around the topic. Before asking respondents about their own experience, we asked whether they knew anyone who received PUT and whether they knew of coworkers who received PUT. This progression helps introduce the topic gradually and may reduce reluctance to answer the direct self-report question.

Because labor-market institutions differ across countries, we defined formality in a way that captures how formal employment is understood in each setting. In practice, this typically means that the worker receives social security coverage through the job, such as having social security contributions deducted from pay or having access to employment-based social protection programs, including benefits such as unemployment insurance. In Brazil, this corresponds to the standard notion of registered employment captured by having a *Carteira de Trabalho*. In the other countries, the survey questions were adapted to local terminology, but always aimed to identify workers in jobs that are registered and covered by the relevant social security system.

Likewise, the wording used to describe PUT was adapted slightly across countries so that respondents would recognize the practice using familiar language. Depending on the country, questions referred to receiving part of compensation as an “informal payment,” a payment “under the table,” or the closest local equivalent. These wording changes were intended to improve comparability in meaning rather than to alter the concept being measured. Throughout the paper, we use PUT to refer to the same

underlying practice: a registered worker in a registered job receiving part of labor compensation off the books.

As is common in online survey data, the raw sample over-represents relatively educated and higher-income individuals. To address this issue, we reweight the observations so that the final estimates are representative of each country’s formal sector. Specifically, we construct weights using nationally representative household survey benchmarks and apply them throughout the analysis. Appendix A provides additional details on the construction of these weights and on the comparison between the survey sample and benchmark household-survey populations.

4 Prevalence of PUT in Latin America

In this section, we describe the main patterns of payments under the table (PUT) pooling all countries in our sample together. Figure 1 summarizes the key descriptive results. We focus on three complementary measures of PUT: the extensive margin, defined as whether a worker receives any part of labor compensation under the table; the intensive margin, defined as the share of earnings paid off the books conditional on receiving PUT; and the share of payroll disbursed as PUT, which combines both margins by assigning zero PUT to non-receivers.

Prevalence and magnitude of PUT. Panel (a) of Figure 1 shows that PUT is widespread among formal employees in our sample. About 17 percent of respondents report receiving at least some part of their compensation under the table. Among those who receive PUT, roughly 23 percent of total labor earnings are paid off the books. Once we assign zero PUT to workers who do not receive any such payments, the implied share of payroll disbursed under the table is about 3.9 percent. Taken together, these numbers suggest that PUT is far from a marginal phenomenon: a non-trivial fraction of formal-sector payroll in Latin America is paid outside the official reporting system.

Distribution of PUT among receivers. Panel (b) of Figure 1 shows that, among workers who receive PUT, the practice often represents a meaningful fraction of total compensation. Only about 12 percent of receivers report that less than 5 percent of their wage is paid under the table. Most receivers instead report shares above that threshold, indicating that PUT is usually not a negligible add-on. At the upper end of the distribution, about 29 percent of PUT receivers report that more than 30 percent of their wage is disbursed off the books. This distribution suggests that, for many workers, PUT is an important component of compensation rather than a small irregular payment.

PUT across income levels. Panel (c) relates PUT to workers' income levels using the World Bank poverty line of \$4.20 per day in PPP terms. We group workers according to multiples of that poverty line and compute the share of payroll disbursed as PUT within each group. Interestingly, PUT is more widespread among higher-income workers. Among workers with earnings at or below five times the poverty line, PUT accounts for 2.5 percent of payroll. This share rises across the income distribution, reaching 5.9 percent among workers earning 15–20 times the poverty line and remaining elevated, at 5.4 percent, among workers earning 20 times the poverty line or more. This pattern stands in sharp contrast with standard measures of labor informality, which are typically concentrated among lower-income workers, and suggests that PUT is not simply another manifestation of low-wage precarious employment.

PUT and tax morale. Panel (d) explores the relationship between PUT and tax morale. We use respondents' level of agreement with the statement that tax evasion is sometimes justified as a proxy for tax morale, and we relate this measure to the share of payroll disbursed as PUT. The results reveal a clear gradient: workers with higher tax morale receive a substantially smaller share of compensation under the table. This pattern is consistent with the view that PUT partly reflects workers' own

willingness to participate in tax and contribution evasion, rather than being driven solely by firms' unilateral decisions.

PUT by establishment size. Panel (e) shows how PUT varies across establishments of different sizes. A large literature has shown that traditional informality is concentrated among smaller firms, reflecting both lower productivity and weaker enforcement. We divide establishments into six categories: up to 4 workers, 5–9, 10–49, 50–99, 100–499, and 500 or more. PUT appears to be similarly widespread among establishments with fewer than 100 workers, while it becomes substantially less prevalent among larger firms. This suggests that, although PUT is observed throughout the formal sector, it is easier to sustain in smaller organizational settings where monitoring and payroll reporting may be less standardized.

Perceived reasons for PUT. Finally, Panel (f) reports workers' perceived reasons for why PUT occurs. The factors most commonly identified as important are minimum wages, employer payroll taxes, and compensation for extra hours. By contrast, other taxes, establishment audits, and residual “other” factors are much less frequently mentioned as central drivers. These responses suggest that workers perceive PUT primarily as a way of reducing labor costs or circumventing labor-market regulations linked directly to payroll, rather than as a response to general tax pressure alone.

Relationship with the employer and PUT. Table 1 examines whether PUT is more common in jobs where workers have closer personal ties to the employer. The dependent variable is the share of payroll disbursed as PUT, pooling all countries in our sample. The results show a clear pattern. Workers who are themselves managers report significantly higher PUT shares, by about 3.9 percentage points relative to other workers. PUT is also more prevalent in family businesses, where the share of payroll paid under the table is about 2.9 percentage points higher. Workers who

knew their employer before starting the job also report somewhat higher PUT, and this association remains marginally statistically significant once all three proxies are included jointly. In the combined specification, being a manager and working in a family business remain strongly associated with PUT, with coefficients of 3.5 and 2.6 percentage points, respectively. These patterns are consistent with the idea that PUT is easier to sustain in employment relationships characterized by trust, repeated interaction, or weaker internal monitoring.

Eliciting sensitive information. A central challenge in measuring payments under the table is that respondents may be reluctant to admit engaging in an illegal and sensitive practice. To address this concern, we complement the direct self-report question with two additional approaches. First, we use a list experiment designed to elicit PUT indirectly. Second, before asking respondents about their own experience, we ask whether they know any coworkers who receive PUT and whether they know of anyone who does. Figure 3 shows that these different measures line up in a reassuring way. In the pooled sample, the list experiment implies that about 18 percent of workers receive PUT, while 17 percent directly report receiving it in their main job. These estimates are quite close, suggesting that respondents are not dramatically understating PUT in the direct question. As expected, the less direct questions yield substantially higher values: about 31 percent report knowing a coworker who receives PUT, and about 51 percent report knowing someone who does. Taken together, these results suggest that although PUT is a sensitive topic, direct self-reports appear broadly informative and provide a credible measure of the practice in our data.

Overall, the pooled results show that PUT is quantitatively important, often sizable among those who receive it, and more common among workers with relatively high earnings. They also point to the importance of workers' attitudes toward compliance and to organizational features such as establishment size, while suggesting that payroll-related regulations are central to understanding why the practice arises

in the first place.

5 Results by country

We next examine how payments under the table (PUT) vary across countries in our sample. Figure 2 presents the same set of descriptive results shown in the pooled analysis, but separately for each country. A common pattern across all panels is that PUT is present in every country we study, but its prevalence differs sharply across settings. The practice appears to be most widespread in Argentina and Brazil, followed by Mexico and Peru, while it is substantially less common in Chile and Colombia.

Prevalence and magnitude of PUT. Panel (a) of Figure 2 shows large differences across countries in the spread of PUT. Argentina stands out with the highest share of workers reporting PUT, at about one quarter of formal employees, followed by Brazil at about one fifth. Mexico also displays meaningful levels of PUT, while Peru is lower and Chile and Colombia exhibit much lower extensive-margin prevalence. The intensive margin conditional on receiving PUT is somewhat more compressed across countries, but Mexico stands out with the highest share of salary paid under the table among receivers, while Argentina and Peru are also relatively high. Combining both margins, the implied share of payroll paid as PUT is highest in Argentina, followed by Mexico, Brazil, and Peru, and much lower in Chile and Colombia. Thus, the cross-country differences in the overall payroll share reflect both differences in how widespread PUT is and differences in the conditional intensive margin.

Distribution of PUT among receivers. Panel (b) shows that the composition of PUT also varies across countries. In Argentina and Brazil, the distribution is more centered in the middle and upper parts, with relatively large shares of PUT receivers reporting that 11–20 percent, 21–30 percent, or more than 31 percent of

wages are paid off the books. Mexico stands out in the upper tail: among Mexican PUT receivers, the fraction receiving more than 31 percent of wages under the table is particularly high. Peru also shows a relatively heavy upper tail compared with Chile and Colombia. Chile and Colombia, in turn, have lower prevalence overall and a somewhat flatter distribution among receivers, with fewer workers in the highest PUT categories. These patterns suggest that cross-country heterogeneity reflects not only how many workers receive PUT, but also how concentrated the practice is in large off-the-books wage shares.

PUT across income levels. Panel (c) reports the share of payroll paid as PUT by income groups defined relative to the World Bank \$4.20 per-day poverty line in PPP terms. A first striking feature is again the large country heterogeneity in levels: Argentina, Brazil, and Mexico are the high-PUT countries in this comparison, while Chile and Colombia remain low in all income groups and Peru lies in between. A second feature is that PUT tends to rise with income within countries, especially in Brazil and Mexico. In both cases, the payroll share paid as PUT is much higher among workers far above the poverty line than among those closer to it. Peru also shows an upward-sloping pattern from a lower level, while Argentina is high throughout the distribution and Chile and Colombia remain comparatively low. This reinforces the pooled result that PUT is not concentrated among the poorest workers and, if anything, becomes more relevant among higher-income formal employees.

PUT and tax morale. Panel (d) relates PUT to tax morale separately by country. In most countries, there is a positive gradient between weaker tax morale and a larger share of payroll paid as PUT. The slope appears particularly pronounced in Chile, Colombia, and Mexico, where workers more willing to justify tax evasion tend to report substantially higher PUT shares. Argentina and Peru also display a positive relationship, though somewhat less steep. Even though countries differ markedly in their average levels of PUT, the overall association between weaker tax morale

and more off-the-books compensation appears broadly common across settings. This suggests that workers' attitudes toward compliance may be one factor helping sustain PUT in a wide range of institutional environments.

PUT by establishment size. Panel (e) shows substantial cross-country heterogeneity in how PUT varies with establishment size. In Argentina, PUT is high across all small and medium-sized establishments and declines sharply only among firms with 100 or more workers. Mexico displays a somewhat similar pattern, with relatively high PUT shares among smaller establishments and much lower levels among larger firms. Peru also shows a decline with size, though from somewhat lower levels. Chile and Colombia have low PUT shares throughout the distribution, with only modest variation across firm sizes. Brazil is somewhat different in that PUT remains non-negligible even in larger establishments, although it is still more prevalent in smaller firms. Overall, the figure suggests that smaller establishments are more conducive to PUT in most countries, but the strength of that relationship varies substantially.

Perceived reasons for PUT. Panel (f) shows that workers' perceived reasons for PUT also differ across countries, although some themes recur. Minimum wages and employer payroll taxes are among the most frequently cited reasons in several countries, particularly Argentina and Peru. Extra hours are also mentioned relatively often, especially in Peru. Argentina stands out in assigning high importance to payroll taxes, minimum wages, and income taxes, consistent with the idea that PUT is perceived there as a way to circumvent a broad set of labor and tax regulations. Chile and Colombia tend to report lower prevalence overall, and the stated reasons appear weaker and more diffuse. Mexico lies in between, with minimum wages standing out more clearly than other factors. Taken together, these responses suggest that while PUT exists throughout the region, its perceived drivers may differ across institutional settings, even if payroll-related regulations emerge repeatedly as central explanations.

Eliciting sensitive information across countries. The same concern about truthful reporting arises in the country-level analysis, where differences in institutions and survey context could in principle affect respondents’ willingness to disclose PUT. Figure 3 therefore compares, for each country, the prevalence of PUT estimated from the list experiment, the direct self-report measure, and the two less direct questions about coworkers and acquaintances. The broad pattern mirrors the pooled evidence. In most countries, the list-experiment estimate is reasonably close to the direct self-report measure, suggesting that respondents are generally willing to report PUT in a direct question despite the sensitivity of the topic. At the same time, the shares reporting that they know a coworker or know someone who receives PUT are systematically higher, as one would expect from less direct elicitation methods. This pattern is especially useful because it suggests that cross-country differences in PUT are unlikely to be driven solely by differential reluctance to answer the direct question. Instead, the country-level variation appears to reflect genuine differences in the prevalence of the practice.

Relationship with the employer and PUT across countries. Table 2 shows that, across countries, working in a family business is the job characteristic most consistently associated with higher PUT. The coefficient on family business is positive in every country and statistically significant in Argentina, Brazil, and Mexico, suggesting that PUT is more prevalent in employment relationships embedded in closer family or ownership ties. Being a job manager also appears to be an important predictor, with positive coefficients in most countries and a large, precisely estimated effect in Brazil, although the country-by-country estimates are often imprecise, likely reflecting reduced statistical power once the sample is split across countries. By contrast, having known the employer before starting the job does not appear to be as systematically predictive of PUT. Its coefficient is generally small and statistically insignificant, and this question was not asked in the original Brazil survey. Overall, the

country-level results reinforce the idea that PUT is more common in jobs with closer personal or organizational ties between workers and employers, with the strongest and most consistent evidence coming from family businesses.

Overall, the country-level evidence highlights two facts. First, PUT is not confined to a single national context: it is present in all countries in our sample. Second, the practice is much more widespread in Argentina and Brazil, followed by Mexico and Peru, while it is substantially less prevalent in Chile and Colombia. This heterogeneity suggests that although PUT reflects a common underlying form of firm-worker collusion, its prevalence depends importantly on country-specific institutional and labor-market conditions.

6 Aggregate implications

6.1 Revenue implications

We now provide a simple back-of-the-envelope calculation of the potential tax revenue gain from eliminating payments under the table. We consider a hypothetical scenario in which all PUT are fully reported, so that taxable earnings equal true earnings. We examine two sources of forgone revenue: payroll taxes (social security contributions) and personal income taxes (PIT).

Payroll taxes. For payroll taxes, we apply each country’s statutory social security contribution schedule—including employer and employee rates, taxable base ceilings, and any deductions—to both reported and true earnings at the individual level.³ The

³The specific schedules used are: Argentina’s combined employer (18%, no ceiling, with *detracción* of ARS 7,003.68) and employee (17%, ceiling $\approx$ ARS 800,000/month in mid-2023) contributions; Brazil’s progressive employee INSS brackets (7.5%–14%, ceiling R\$ 7,087.22) plus employer contributions (27.8%, no ceiling); Chile’s AFP, health, and unemployment insurance (employee 17.6% + employer 4.88%, ceiling 81.6 UF $\approx$ CLP 2,933,520); Colombia’s pension, health, and family compensation fund (employee 8% + employer 24.5%, ceiling 25 SMMLV = COP 29,000,000); Mexico’s IMSS contributions including the *cuota fija* (combined $\approx$ 21.7% on capped earnings at 25 UMA $\approx$ MXN 78,843, plus fixed employer component); and Peru’s ONP and EsSalud (employee 13% + employer 9%, no ceiling). In each case, we use the schedule corresponding to the survey year.

payroll tax revenue gain from eliminating PUT is then

$$\frac{\sum_i \left[S(y_i^{\text{true}}) - S(y_i^{\text{reported}}) \right] \cdot w_i}{\sum_i S(y_i^{\text{reported}}) \cdot w_i},$$

where $S(\cdot)$ denotes the country’s total social security contribution function (employer plus employee), y_i denotes worker i ’s earnings, and w_i are survey weights. Because several countries impose ceilings on the taxable base, the revenue gain is smaller than it would be under a simple proportional-rate assumption: hidden earnings that push workers above the ceiling do not generate additional contributions.

Personal income taxes. For personal income taxes, the calculation follows a similar approach. We apply each country’s statutory PIT schedule to both reported and true earnings at the individual level, accounting for standard deductions and tax-free thresholds.⁴ The PIT revenue gain is computed analogously, replacing $S(\cdot)$ with the PIT function $T(\cdot)$. Because hidden earnings face higher marginal rates under progressive PIT schedules, the PIT revenue gain as a share of current PIT revenue substantially exceeds the payroll tax gain.

Revenue gains as a share of GDP. To express these gains in comparable units across countries, we convert them to percentages of GDP. We multiply each country’s revenue gain (as a share of current tax revenue) by the corresponding tax-revenue-to-GDP ratio from the OECD Global Revenue Statistics Database (OECD, 2025).⁵

⁴The specific schedules used are: Argentina’s *Impuesto a las Ganancias* (January–September 2023, pre-Decree 473/2023); Brazil’s IRPF (2022 monthly table); Chile’s *Impuesto Único de Segunda Categoría* (July 2023, UTM = CLP 63,326); Colombia’s *Impuesto sobre la Renta* (2023, UVT = COP 42,412); Mexico’s ISR (2023, Article 96 monthly tariff); and Peru’s *Impuesto a la Renta de Quinta Categoría* (2023, UIT = PEN 4,950). In each case, we use the schedule corresponding to the survey year.

⁵Social security contributions and PIT revenue as a percentage of GDP are from the OECD/ECLAC/CIAT/IDB *Revenue Statistics in Latin America and the Caribbean 2025*. We use 2023 ratios for Argentina, Chile, Colombia, Mexico, and Peru, and 2022 ratios for Brazil to match each country’s survey year. Chile’s and Colombia’s social security contribution figures understate total mandatory contributions, as both countries have large privatized pension systems whose con-

The pooled estimate is computed as the sum of dollar-valued revenue gains across all six countries divided by their combined GDP.⁶ Earnings are winsorized at the 99th percentile within each country to limit the influence of extreme observations.

Cross-country variation. The implied revenue gains vary sharply across countries, mirroring the differences in the prevalence of PUT documented above. Brazil stands out with the largest combined gain at 0.93 percent of GDP, followed by Argentina (0.76 percent) and Mexico (0.55 percent). Peru displays a more modest combined gain of 0.16 percent of GDP. By contrast, the implied revenue gains are very limited in Chile and Colombia, at 0.06 and 0.13 percent of GDP, respectively. Across the six countries, the pooled revenue gain amounts to 0.63 percent of combined GDP. These differences reinforce the broader message of the paper: while PUT is present throughout the region, its fiscal relevance is highly uneven across countries. In higher-prevalence settings such as Argentina, Brazil, and Mexico, bringing under-the-table payments into the formal payroll could meaningfully expand both the payroll tax contribution base and income tax revenues. In lower-prevalence settings such as Chile and Colombia, the direct tax gains from eliminating PUT appear much smaller.

7 Conclusion

This paper documents that payments under the table (PUT) are an important and previously undermeasured feature of labor markets in Latin America. Using original survey data on formal employees in Brazil, Argentina, Mexico, Colombia, Chile, and Peru, we provide the first multi-country evidence on the prevalence of this practice among workers in registered jobs. Pooling all countries together, we find that about 17 percent of formal employees report receiving at least some part of their compensation

tributions are not classified as tax revenue under the OECD framework.

⁶Nominal GDP in current US dollars is from the World Bank (indicator NY.GDP.MKTP.CD), using 2023 values for all countries except Brazil (2022).

under the table. Among those who do, roughly 23 percent of earnings are paid off the books, implying that about 3.9 percent of formal-sector payroll is disbursed outside the official reporting system.

Our results also show that PUT does not simply mirror standard patterns of worker informality. In particular, PUT is not concentrated among the poorest workers. If anything, the share of payroll paid under the table tends to rise with workers' income. This suggests that informality in developing countries is not only a margin of exclusion from the formal sector, but also a margin of partial evasion within formal employment relationships. Looking only at whether a worker or a firm is formally registered therefore misses an economically meaningful dimension of noncompliance.

The evidence further points to the importance of collusion and organizational structure in sustaining PUT. The practice is more prevalent in smaller establishments, is strongly associated with working in family businesses, and is higher among workers who are themselves managers. Workers with lower tax morale also report higher PUT shares, and respondents frequently cite minimum wages, employer payroll taxes, and compensation for extra hours as important reasons for the practice. Taken together, these patterns are consistent with the view that PUT reflects an equilibrium in which both firms and workers have incentives to conceal part of compensation from the state.

We also show that PUT may have meaningful fiscal consequences. In a simple counterfactual exercise where under-the-table payments are fully brought onto the books, the combined payroll tax and personal income tax revenue gain amounts to 0.63 percent of GDP across the six countries. This average masks substantial heterogeneity: the implied gains are especially large in Brazil (0.93 percent of GDP), Argentina (0.76 percent), and Mexico (0.55 percent), while they are negligible in Chile and Colombia (0.06 and 0.13 percent, respectively). These results suggest that PUT is not only a form of labor-market noncompliance, but also a potentially important source of forgone government revenue in several countries in the region.

At the same time, PUT varies sharply across countries. It is most prevalent in Argentina and Brazil, followed by Mexico and Peru, and substantially less common in Chile and Colombia. These differences suggest that although PUT is present throughout the region, its spread depends importantly on country-specific labor-market institutions, enforcement environments, and the costs and benefits of formal compliance.

More broadly, our findings point to a simple lesson: formality should not be understood as a binary status. Even among workers in registered jobs, a substantial share of compensation may remain hidden from tax and social security authorities. This has important implications for how researchers measure informality and for how policymakers think about labor regulation, payroll taxation, and the financing of social protection systems. A full understanding of informality in developing countries requires going beyond whether workers are formally employed and examining whether their earnings are fully reported.

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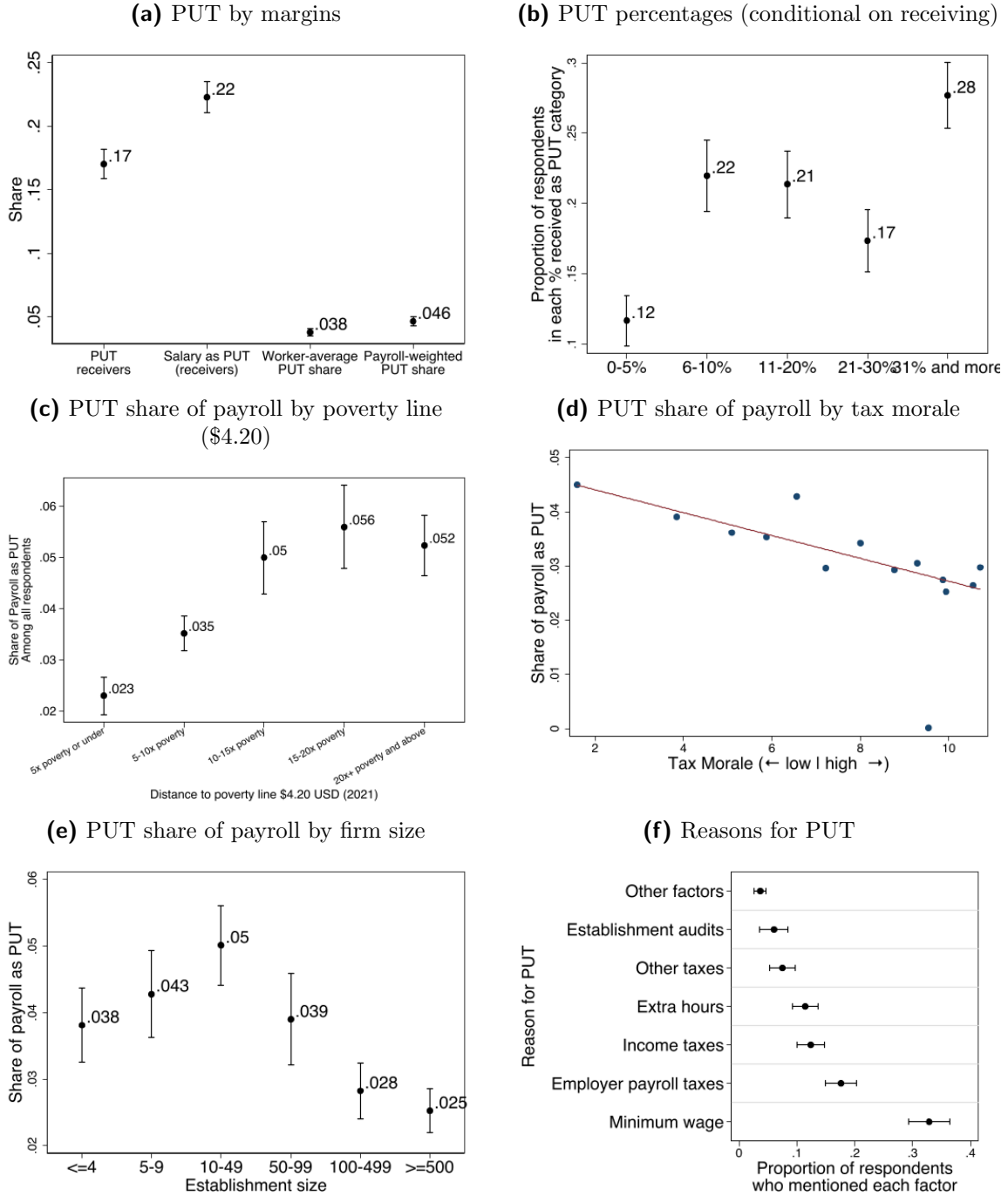
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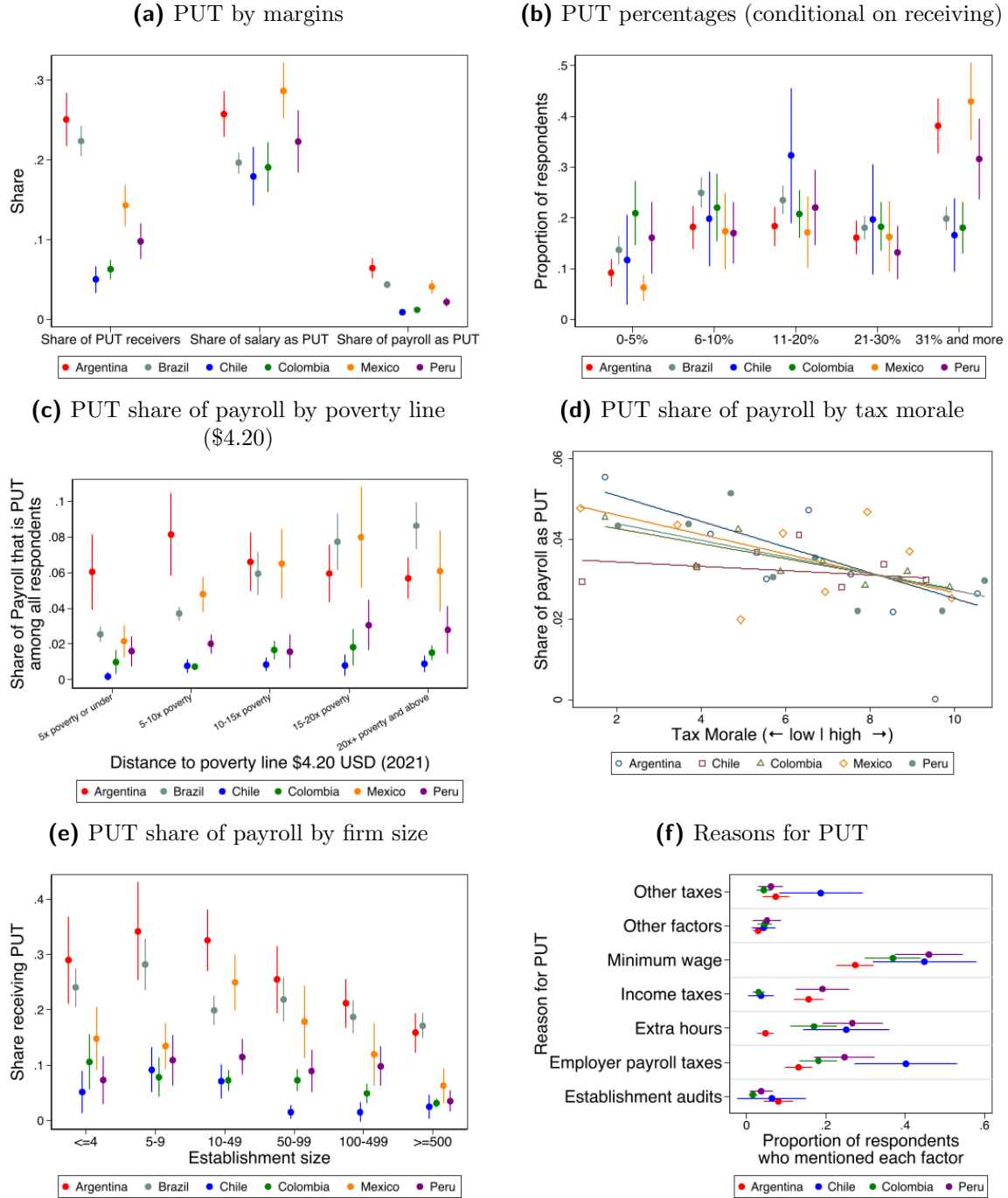
Figures and tables

Figure 1: Summary of pooled PUT Results



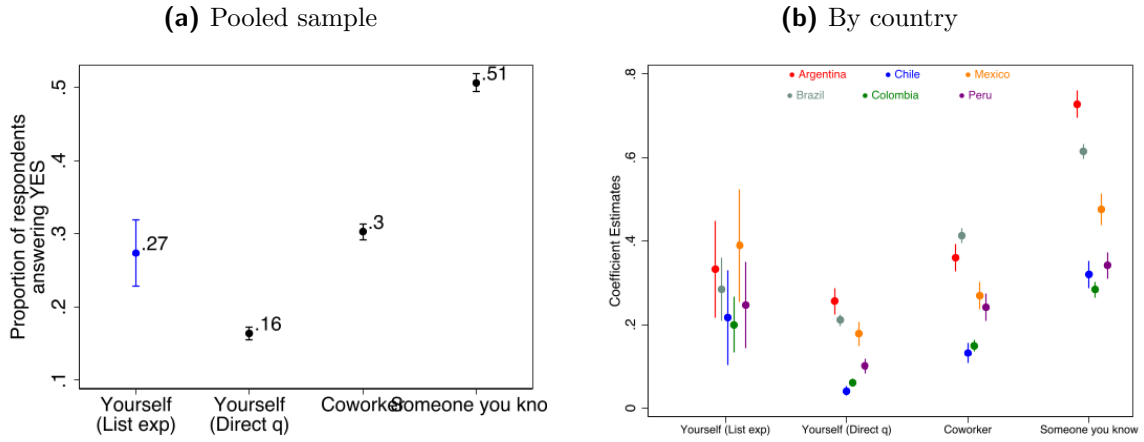
Notes: This figure reports pooled survey evidence on payments under the table (PUT) across all countries in our sample. Panel (a) shows the extensive margin, the intensive margin conditional on receiving PUT, and the implied payroll share paid as PUT in the full sample. Panel (b) reports the distribution of the intensive margin among PUT receivers. Panel (c) shows the payroll share paid as PUT by income groups defined relative to the World Bank \$4.20 per-day poverty line (2021 PPP). Panel (d) relates PUT to respondents' tax morale. Panel (e) shows PUT by establishment size. Panel (f) reports the share of respondents citing each factor as an important reason for PUT. All estimates use survey weights so that the sample is representative of each country's formal sector. Vertical bars denote 95 percent confidence intervals.

Figure 2: Summary of PUT Results by country



Notes: This figure reports survey evidence on payments under the table (PUT) separately by country. Panel (a) shows, for each country, the extensive margin, the intensive margin conditional on receiving PUT, and the implied payroll share paid as PUT in the full sample. Panel (b) reports the distribution of the intensive margin among PUT receivers. Panel (c) shows the payroll share paid as PUT by income groups defined relative to the World Bank \$4.20 per-day poverty line (2021 PPP). Panel (d) relates PUT to respondents' tax morale by country. Panel (e) shows PUT by establishment size. Panel (f) reports the share of respondents in each country citing each factor as an important reason for PUT. All estimates use survey weights so that each country sample is representative of that country's formal sector. Vertical bars denote 95 percent confidence intervals.

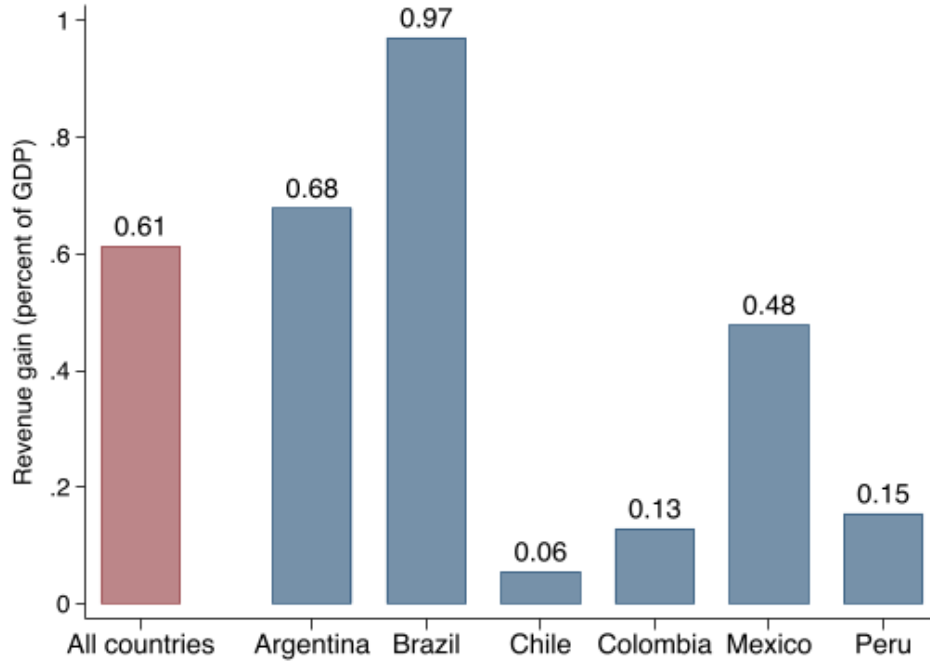
Figure 3: PUT receivers and list experiment



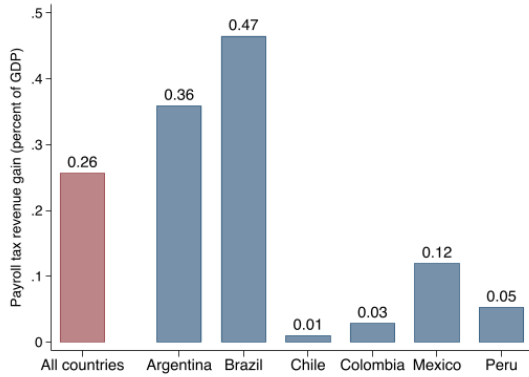
Notes: This figure reports alternative measures of the prevalence of payments under the table (PUT). Panel (a) shows pooled estimates for the full sample. The first point reports the prevalence of PUT estimated using the list experiment, while the second reports the share of respondents who directly state that they themselves receive PUT in their main job. The third and fourth points report, respectively, the share of respondents who say they know a coworker who receives PUT and the share who say they know anyone who receives PUT. Panel (b) reports the same four measures separately by country. All estimates use survey weights so that each country sample is representative of that country's formal sector. Vertical bars denote 95 percent confidence intervals.

Figure 4: Revenue gains from eliminating PUT

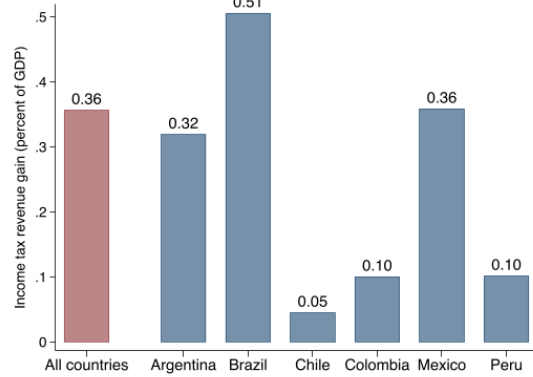
(a) Combined (payroll tax + income tax)



(b) Payroll tax



(c) Income tax



Notes: This figure reports the potential tax revenue gain from eliminating PUT, expressed as a percentage of GDP. Panel (a) shows the combined gain from payroll taxes and personal income taxes (PIT); panels (b) and (c) show each component separately. For both components, we apply each country's statutory tax schedule (including contribution ceilings, progressive brackets, and standard deductions) to reported and true earnings at the individual level. Revenue gains are converted to percentages of GDP using tax-revenue-to-GDP ratios from the OECD/ECLAC/CIAT/IDB *Revenue Statistics in Latin America and the Caribbean 2025*. Earnings are winsorized at the 99th percentile. All calculations use survey weights representative of each country's formal sector.

Table 1: PUT and closeness to employer

	Share of payroll as PUT			
	(1)	(2)	(3)	(4)
Job manager	0.036*** (0.008)			0.033*** (0.008)
Family business		0.030*** (0.006)		0.028*** (0.006)
Knew employer before			0.012** (0.005)	0.006 (0.005)
Constant	0.035*** (0.002)	0.031*** (0.002)	0.035*** (0.002)	0.027*** (0.003)
Observations	12610	12610	12610	12610

Notes: This table reports OLS estimates of the relationship between payments under the table (PUT) and proxies for workers' closeness to the employer in the pooled sample. The dependent variable is the share of payroll paid as PUT, assigning zero to workers who do not report receiving PUT. "Job manager" is an indicator for whether the respondent is the manager of the establishment, "Family business" indicates that the respondent works in a family business, and "Knew employer before" indicates that the respondent knew the employer prior to the start of the employment relationship. Columns (1)–(3) include each proxy separately; column (4) includes all three jointly. All regressions use survey weights so that the sample is representative of each country's formal sector. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table 2: PUT and closeness to employer by country

	Share of payroll as PUT					
	(1)	(2)	(3)	(4)	(5)	(6)
Job manager	0.028 (0.024)	0.051*** (0.004)	0.000 (.)	0.000 (.)	0.018* (0.011)	0.002 (0.008)
Family business	0.068*** (0.015)	0.011*** (0.003)	0.003 (0.003)	0.004 (0.003)	0.028** (0.011)	0.004 (0.006)
Knew employer before	0.009 (0.016)		0.004* (0.003)	0.004 (0.003)	0.007 (0.010)	0.012* (0.007)
Constant	0.042*** (0.005)	0.022*** (0.002)	0.006*** (0.002)	0.009*** (0.001)	0.042*** (0.005)	0.021*** (0.003)
Country	<i>Argentina</i>	<i>Brazil</i>	<i>Chile</i>	<i>Colombia</i>	<i>Mexico</i>	<i>Peru</i>
Observations	1883	6325	1943	4341	2747	1696

Notes: This table reports country-specific OLS estimates of the relationship between payments under the table (PUT) and proxies for workers' closeness to the employer. The dependent variable is the share of payroll paid as PUT, assigning zero to workers who do not report receiving PUT. "Job manager" is an indicator for whether the respondent is the manager of the establishment, "Family business" indicates that the respondent works in a family business, and "Knew employer before" indicates that the respondent knew the employer prior to the start of the employment relationship. Each column reports estimates for one country. All regressions use survey weights so that each country sample is representative of that country's formal sector. Variables that do not appear in a given column were not asked in that country's survey. Robust standard errors are reported in parentheses. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A Reweighting Procedure

The online PUT survey over-represents workers with relatively high education and earnings. To recover estimates that are representative of each country’s formal-sector employee population, we reweight the final PUT analysis sample using nationally representative household surveys benchmarked to formal full-time employees. The benchmark surveys are EPH 2023 Q3 for Argentina, PNAD Contínua 2022 for Brazil, ESI 2022 for Chile, GEIH 2023 for Colombia, ENOE 2023 Q2–Q3 for Mexico, and ENAHO 2023 for Peru.

The current weights are built separately by country on the final analysis sample, defined by `sample_formal_dur_att = 1`. We harmonize a common set of balancing variables that are observed both in the PUT survey and in the benchmark household surveys: sex, age bins, education bins, and income bins. Let c denote a post-stratification cell and let k index countries. For each cell, we compute the benchmark household-survey mass

$$M_{ck}^{HHS} = \sum_{j \in c} \omega_{jk}^{HHS},$$

where ω_{jk}^{HHS} is the household-survey sampling weight. If N_{ck}^{PUT} denotes the number of PUT respondents in the same cell, the cell-level weight assigned to respondent i in cell c is

$$w_{ik}^0 = \frac{M_{ck}^{HHS}}{N_{ck}^{PUT}}.$$

In practice, some fine cells are too sparse to be used directly. The weighting routine therefore applies a deterministic fallback hierarchy. It first attempts to match respondents on sex $\times$ age $\times$ education $\times$ income; if a cell has no positive benchmark mass or no PUT respondent support, it falls back successively to sex $\times$ age $\times$ education, then sex $\times$ age, and finally sex only. Each respondent is assigned the finest supported cell in that hierarchy. The resulting weights are then normalized so that total PUT weight matches the total benchmark household-survey mass:

$$w_{ik} = w_{ik}^0 \times \frac{\sum_{j \in HHS_k} \omega_{jk}^{HHS}}{\sum_{i \in PUT_k} w_{ik}^0}.$$

These normalized weights correspond to the variable `weight_formal_v3`, which is the default weight used throughout the analysis.

An important feature of the current `v3` procedure is that sector and establishment size are not imposed as balancing margins. We exclude them from the weighting cells because they are more prone to sparsity and comparability problems across data sources. The appendix balance tables therefore report private-sector status and establishment size as diagnostics rather than as moments matched by construction. By contrast, sex, age, education, and income are the targeted margins, so the weighted PUT sample is expected to track the benchmark population closely along those di-

mensions.

B Reweighting Balance Tables

Table A1: Argentina: Survey Sample and Benchmark Population

	PUT (1)	PUT Reweight w1 (2)	HHS (3)
Female	0.480	0.389	0.371
Private sector	0.639	0.669	0.688
Age			
18-30	0.144	0.211	0.220
31-45	0.498	0.481	0.455
46-55	0.200	0.217	0.225
56+	0.159	0.090	0.100
Education			
Less than high school	0.058	0.147	0.195
High school	0.198	0.330	0.328
More than high school	0.743	0.523	0.477
Establishment size			
1 to 5	0.091	0.096	0.094
6 to 10	0.082	0.088	0.108
11+	0.827	0.816	0.798
Income			
Less than 1x minimum wage	0.124	0.078	0.082
1 to 2x minimum wage	0.272	0.438	0.478
2 to 3x minimum wage	0.274	0.254	0.247
More than 3x minimum wage	0.292	0.214	0.186
N	2947	2947	6190
Target mean abs. gap	0.086	0.019	.
Target max abs. gap	0.266	0.048	.

Notes: Column (1) reports unweighted means in the PUT survey. Column (2) reports means in the PUT survey weighted with the preferred `weight_formal_v3` weights. Column (3) reports benchmark means from Argentina’s EPH 2023 Q3 household survey. The targeted balancing margins are sex, age, education, and income. Private-sector status and establishment size are included as diagnostics only.

Table A2: Brazil: Survey Sample and Benchmark Population

	PUT (1)	PUT Reweight w1 (2)	HHS (3)
Female	0.482	0.416	0.425
Private sector	0.819	0.793	0.828
Age			
18-30	0.388	0.323	0.315
31-45	0.500	0.445	0.428
46-55	0.089	0.174	0.175
56+	0.022	0.058	0.082
Education			
Less than high school	0.072	0.186	0.182
High school	0.277	0.485	0.475
More than high school	0.651	0.329	0.342
Establishment size			
1 to 5	0.129	0.132	0.124
6 to 10	0.089	0.116	0.128
11 to 50	0.227	0.227	0.207
50+	0.556	0.524	0.540
Income			
Less than 3000 BRL	0.594	0.767	0.737
3000 to 6000 BRL	0.252	0.167	0.179
More than 6000 BRL	0.154	0.067	0.084
N	7735	7725	72812
Target mean abs. gap	0.089	0.013	.
Target max abs. gap	0.309	0.030	.

Notes: Column (1) reports unweighted means in the PUT survey. Column (2) reports means in the PUT survey weighted with the preferred `weight_formal_v3` weights. Column (3) reports benchmark means from Brazil's PNAD Contínua 2022 household survey. The targeted balancing margins are sex, age, education, and income. Private-sector status and establishment size are included as diagnostics only.

Table A3: Chile: Survey Sample and Benchmark Population

	PUT (1)	PUT Reweight w1 (2)	HHS (3)
Female	0.601	0.434	0.424
Private sector	0.668	0.787	0.899
Age			
18-30	0.094	0.240	0.237
31-45	0.483	0.452	0.435
46-55	0.279	0.209	0.210
56+	0.145	0.099	0.118
Education			
Less than high school	0.037	0.064	0.081
High school	0.188	0.377	0.390
More than high school	0.775	0.559	0.529
Establishment size			
1 to 5	0.095	0.086	0.044
6 to 10	0.106	0.084	0.061
11 to 50	0.287	0.229	0.225
50+	0.512	0.601	0.670
Income			
Less than 1x minimum wage	0.089	0.223	0.245
1 to 2x minimum wage	0.434	0.458	0.438
2 to 3x minimum wage	0.233	0.138	0.133
More than 3x minimum wage	0.226	0.168	0.152
N	3270	3270	11600
Target mean abs. gap	0.101	0.020	.
Target max abs. gap	0.247	0.069	.

Notes: Column (1) reports unweighted means in the PUT survey. Column (2) reports means in the PUT survey weighted with the preferred `weight_formal_v3` weights. Column (3) reports benchmark means from Chile's ESI 2022 household survey. The targeted balancing margins are sex, age, education, and income. Private-sector status and establishment size are included as diagnostics only.

Table A4: Colombia: Survey Sample and Benchmark Population

	PUT (1)	PUT Reweight w1 (2)	HHS (3)
Female	0.542	0.443	0.436
Private sector	0.801	0.861	0.898
Age			
18-30	0.244	0.316	0.309
31-45	0.508	0.448	0.448
46-55	0.185	0.171	0.170
56+	0.064	0.065	0.074
Education			
Less than high school	0.007	0.028	0.056
High school	0.149	0.394	0.380
More than high school	0.844	0.578	0.564
Establishment size			
1 to 5	0.075	0.067	0.060
6 to 10	0.074	0.073	0.063
11 to 50	0.205	0.181	0.184
50+	0.647	0.679	0.693
Income			
Less than 1x minimum wage	0.183	0.435	0.442
1 to 2x minimum wage	0.401	0.321	0.329
2 to 3x minimum wage	0.166	0.095	0.096
More than 3x minimum wage	0.229	0.132	0.133
N	6397	6397	29568
Target mean abs. gap	0.088	0.008	.
Target max abs. gap	0.281	0.029	.

Notes: Column (1) reports unweighted means in the PUT survey. Column (2) reports means in the PUT survey weighted with the preferred `weight_formal_v3` weights. Column (3) reports benchmark means from Colombia's GEIH 2023 household survey. The targeted balancing margins are sex, age, education, and income. Private-sector status and establishment size are included as diagnostics only.

Table A5: Mexico: Survey Sample and Benchmark Population

	PUT (1)	PUT Reweight w1 (2)	HHS (3)
Female	0.431	0.417	0.407
Private sector	0.722	0.773	0.785
Age			
18-30	0.189	0.333	0.323
31-45	0.453	0.396	0.386
46-55	0.268	0.207	0.209
56+	0.090	0.064	0.082
Education			
Less than high school	0.011	0.046	0.075
High school	0.180	0.549	0.520
More than high school	0.809	0.406	0.405
Establishment size			
1 to 5	0.101	0.065	0.059
6 to 10	0.111	0.085	0.081
11 to 50	0.287	0.269	0.280
50+	0.501	0.581	0.580
Income			
Less than 1x minimum wage	0.145	0.187	0.213
1 to 2x minimum wage	0.401	0.551	0.550
2 to 3x minimum wage	0.206	0.149	0.153
More than 3x minimum wage	0.221	0.087	0.084
N	3806	3806	69842
Target mean abs. gap	0.104	0.010	.
Target max abs. gap	0.403	0.029	.

Notes: Column (1) reports unweighted means in the PUT survey. Column (2) reports means in the PUT survey weighted with the preferred `weight_formal_v3` weights. Column (3) reports benchmark means from Mexico's ENOE 2023 Q2–Q3 household survey. The targeted balancing margins are sex, age, education, and income. Private-sector status and establishment size are included as diagnostics only.

Table A6: Peru: Survey Sample and Benchmark Population

	PUT (1)	PUT Reweight w1 (2)	HHS (3)
Female	0.350	0.284	0.357
Private sector	0.761	0.733	0.785
Age			
18-30	0.265	0.353	0.318
31-45	0.384	0.394	0.422
46-55	0.219	0.168	0.167
56+	0.132	0.085	0.092
Education			
Less than high school	0.012	0.026	0.100
High school	0.145	0.276	0.297
More than high school	0.843	0.698	0.603
Establishment size			
1 to 5	0.083	0.107	0.137
6 to 10	0.102	0.088	0.084
11 to 50	0.257	0.241	0.177
50+	0.559	0.565	0.602
Income			
Less than 1x minimum wage	0.114	0.141	0.194
1 to 2x minimum wage	0.417	0.498	0.509
2 to 3x minimum wage	0.181	0.191	0.191
More than 3x minimum wage	0.270	0.145	0.106
N	2229	2229	9107
Target mean abs. gap	0.076	0.036	.
Target max abs. gap	0.240	0.095	.

Notes: Column (1) reports unweighted means in the PUT survey. Column (2) reports means in the PUT survey weighted with the preferred `weight_formal_v3` weights. Column (3) reports benchmark means from Peru's ENAHO 2023 household survey. The targeted balancing margins are sex, age, education, and income. Private-sector status and establishment size are included as diagnostics only.