Labor Lawsuits and Firms' Tax Compliance Evidence from an RCT in the Dominican Republic *

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Abstract

This paper evaluates how deterrence messages highlighting labor lawsuit risk reduce informality and payments under the table (PUT) within registered establishments. In partnership with the Dominican Republic's tax authority (DGII), we run a nationwide randomized information experiment covering the universe of 67,570 registered private-sector firms. We leverage tax and social security data to evaluate the effects on total payroll, withheld income taxes, formal employment, and other tax bases. We find that small firms increase total payroll by about 2%, with no difference across treatment arms, and the effects persist for at least 10 months. Employment responses follow a similar pattern but do not explain the overall effects, suggesting that firms correct both margins. Heterogeneous responses suggest that compliers to the experiment may not be those in which informal labor market practices are more pronounced, but rather those for whom the information has been more relevant or who take communication with the tax authority more seriously.

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1 Introduction

Reducing informal employment is central to achieving inclusive growth in developing countries. High levels of informality affect revenue collection, weaken social security systems, and also distort competition among firms, dampening long-term productivity (La Porta and Shleifer 2014). While it is often introduced as a binary concept, informal employment is complex. First, non-registered establishments operate entirely outside the formal system; thus, their workers are hired informally. Second, registered establishments can also hire some workers *off-the-books* (Ulyssea 2020), who will not be covered by the social security system or basic regulations such as the minimum wage. Finally, registered establishments can pay part of registered employees' wages under the table (Feinmann et al. 2022), avoiding part of contributions, income taxes, and other wage-related taxes.

There is a long-standing literature on the first group, arising from firms' decisions on whether to register, face taxes and regulations, and avoid evasion risks. We know significantly less about *informality within registered firms*. In particular, we know little about the relative sizes of *off-the-books* employees and payments under the table to formal employees (PUT from now on). In addition, evidence on how to reduce informality within registered firms remains scarce. This margin is of special interest, given that registered firms appear in administrative records, allowing us to learn about their responses to different policies by leveraging social security and tax data. Therefore, this paper focuses on how registered establishments adjust along both informality margins, PUTs and *off-the-books* hiring.

We provide direct evidence on how registered establishments respond along different informality margins using a randomized controlled trial that covers the universe of firms in the Dominican Republic. In collaboration with the tax authority, we randomize novel deterrence messages that highlight the role of labor lawsuits—workers suing employers in labor courts—as the primary enforcement mechanism for labor rights. Leveraging linked administrative data, we quantify changes in total payroll, withheld income taxes, formal employment, and other tax bases.

Our intervention comprises five treatment arms that differ in message content. Two arms target PUTs: one highlights that payments under the table erode employees' social security benefits, and firms can be sued in labor courts by their workers. The other adds that information revealed in lawsuits can be used by the tax authority to trigger tax audits.[1] Two arms target *off-the-books* hiring. These interventions mirror those on PUTs but highlight that *off-the-books* hiring (rather than PUTs) can lead to labor lawsuits. A fifth arm also emphasizes that employees can sue their employers if they underreport profits. This is due to the legal obligation to distribute 10% of profits to workers. Finally, a neutral filing deadline reminder serves as a control.

First, we show that small firms that receive any treatment message increase total payroll by

[1]The message including that the tax authority is authorized to use labor lawsuit information to trigger a tax audit was initially thought of as a *stronger* message in the sense of stressing that one employee suing could propagate to a tax audit.

about 2% and that the effect persists for at least 10 months. Consistent with the experimental literature on deterrence messages, large firms do not respond to the intervention whatsoever. When looking at total employment, we find response patterns consistent with those for total payroll but with significantly smaller magnitudes, suggesting that PUTs play a larger role than informality in explaining the effect on total payroll. Additionally, we find that the total withheld income tax at the firm level increases even more than the total payroll. This also points to PUT as the key adjustment margin, as PUT tends to be more concentrated among high-wage workers (Feinmann et al. 2022, Franco 2025), and low-wage earners are exempted from income tax.

Second, we find no difference across treatment arms relative to the control. The most likely explanation is that the messages were similar enough for the employers not to react to the slight differences. This is especially true in the treatment arms, which differ on the topic (*PUTs*, *informality*, *profits*), as they all primarily emphasize the risk of labor lawsuits. For arms that differ in the intensity of the message (*Strong*, *Soft*), our results are consistent with prior literature, showing that firms do not react to differences in the audit rate (Bergolo et al. 2023). As a result, we present most results with all treatment arms pooled, and we interpret the different messages as reflecting shifts in awareness of labor lawsuits.

Third, we exploit the heterogeneity in our data to study which firms have larger effects. As it is common in information experiments, larger effects are expected in two cases: for firms for which the information was more relevant,[2] and for those with more prevalent illegal labor market practices (and, therefore, a larger margin of response). We conduct our heterogeneity analysis in two ways. First, we estimate effects separately for the pre-specified group. Second, we conduct a data-driven approach based on Athey and Wager (2019). Both methods yield similar results and show that groups with more frequent interaction with the tax authority and those unlikely to have experience with labor lawsuits respond more, even when they are less suspicious of prevalent illegal labor market practices. This result highlights that compliers to information experiments may not be those in which PUT and informality are more widespread.

Most policy and related work focuses on the first type of informality: Bringing unregistered firms into formality. High informality is linked to weak fiscal capacity and distorted competition (Perry et al. 2007, La Porta and Shleifer 2014, Gordon and Li 2009, Besley and Persson 2009; 2010). Theory highlights selection and size constraints that keep informal firms small and capital-constrained (de Paula and Scheinkman 2011, Günther and Launov 2012). Field evidence shows limited impacts from lowering registration frictions alone (de Mel et al. 2013, Bruhn 2013, Kaplan et al. 2011), while inspections and credible enforcement generate modest but persistent increases in formalization (de Andrade et al. 2016, De Giorgi et al. 2018). Broader surveys on tax systems and capacity in low and middle-income settings align with these patterns (Bachas et al. 2024, Kleven et al. 2016).

By contrast, much less is known about informality within formal firms, as existing evidence

[2]Both in terms of changing priors and regarding information processing.

is indirect but suggestive, indicating that both margins are quantitatively relevant and policy-sensitive. First, linking future benefits to reported wages reduced under-reporting in Mexico (Kumler et al. 2020). Second, an expansion of dependent health coverage in Uruguay increased registered employment while raising under-reporting among small firms, suggesting substitution between margins (Bergolo and Cruces 2014). Third, minimum wage spikes in Eastern Europe revealed envelope wages and muted compliance among evading firms (Tonin 2013, Gavoille and Zasova 2023). Fourth, in Argentina, inspections increase subsequent wage reporting and compliance with labor regulations (Ronconi 2010). Additionally, theory embeds these choices in unified equilibrium frameworks and surveys their determinants and consequences (Ulyssea 2018; 2020), while survey evidence documents substantial PUTs among registered workers (Feinmann et al. 2022).

Our design also relates to research on tax compliance and deterrence that emphasizes verifiable trails and third-party reporting. In VAT systems, cross-checks deter evasion, and audit salience raises compliance (Pomeranz 2015), whereas weaker trails allow for selective misreporting (Carrillo et al. 2017). Giving consumers a stake in receipts turns buyers into monitors (Naritomi 2019). Deterrence letters that stress audits and penalties generally outperform moral suasion (Bergolo et al. 2023, Dörrenberg et al. 2023), and in the Dominican Republic, messages that made incarceration salient generated significant revenue gains (Holz et al. 2020, Gil et al. 2024). We build on these insights, redirecting the objective to labor-market compliance within registered firms. We test whether lawsuit-based deterrence and audit-referral salience reallocate adjustments between the intensive (PUTs) and internal extensive (*off-the-books* workers) margins, as observable in linked tax and social security data.

2 Context

The Dominican Republic is a Caribbean nation with approximately 11.5 million inhabitants. In 2024, its GDP per capita (PPP) was US$27,541, which sat above the world average of US$24,248 and higher than Mexico, Brazil, and Colombia. Over the past decade, real GDP grew at an average annual rate of 5.5%, positioning the country as a developing economy.

In many middle-income "transition" settings with intermediate state capacity, enforcement gaps allow illegal practices to persist inside otherwise legal firms. The mechanism is well documented: when third-party reporting and withholding are present, evasion is tightly constrained, but in domains that rely on self-reports or cash transactions, misreporting remains feasible (Kleven et al. 2011). In these developing economies, economic growth outpaces the governmental efforts of enforcement. Thus, limited audit resources and fragmented information systems can create an environment where illegal labor market practices in registered firms can expand (Gordon and Li 2009, Besley and Persson 2010).

The Dominican Republic records one of the lowest revenue-to-GDP ratios in the LAC region.

According to OECD estimates, the tax-to-GDP ratio in 2022 was 13.9%, compared with 21.5% for LAC and 34.0% for the OECD. Income taxes represented 26% of total tax revenues in the Dominican Republic, versus 28% in LAC and 34% in the OECD. These low levels of revenue collection can be attributed to high levels of informality, as only 45.3% of workers are formally employed[3]. Moreover, there are no official sources of the share of informal workers employed by registered firms, nor of the share of formally registered employees who maintain informal arrangements with their employers.

2.1 Wage-related Taxes

On the employer side, statutory labor obligations include contributions to the social security system that include pensions (AFP), family health insurance (SFS), and occupational risk insurance (ARL), plus the 1% payroll levy to INFOTEP for vocational training. These liabilities are assessed on a contributory basis and remitted monthly via the TSS. On the employee side, workers contribute a share of their wages to AFP and SFS and pay through payroll withholding, while the personal income tax (ISR) applies progressively to labor income net of mandatory employee contributions. Employers compute and withhold ISR each month against the annual scale and remit it with the payroll return, applying the standard treatment to complementary pay (bonuses, commissions, overtime). Additionally, employees pay a 0.5% INFOTEP levy on annual income.

Table 6 and Table 7 report the marginal income tax schedule for employees and the social security contribution rates, respectively.

The National Salary Committee (CNS) sets minimum-wage floors by firm size and sector. Firms are assigned to tiers primarily based on the number of registered employees and gross income. Crossing either the sales or employment threshold in year t reclassifies the firm in year $t+1$ and adjusts the applicable floor for all workers. When firms report wages below the floor without a just cause (e.g., part-time employment), authorities impute the floor for contribution and withholding purposes, so wage-linked taxes and social-security contributions are calculated as if the wage equaled the floor. See Appendix E for details.

2.2 Legal Framework

Dominican labor relations are governed by the Labor Code (Law 16–92), the Social Security Law (Law 87–01), and the Tax Code (Law 11-92), with enforcement shared by the Ministry of Labor and its inspectorate, the social-security treasury (TSS), and the tax authority (DGII). In practical terms, firms must register workers, report the true contributory base, respect the minimum wage set by the CNS, withhold and remit ISR when due, and retain auditable payroll records.

When firms understate wages or keep workers off the books, they violate both labor and tax

[3]Estimates given by the International Labor Organization (ILO) in 2024.

law. Under the Tax Code, employers act as withholding agents for personal income tax on wages and must withhold, document, and pay over those amounts to the tax authority. Failure to enter withheld sums within legal deadlines constitutes tax fraud under Articles 236 and 237 and carries penalties of two to ten times the unpaid amount and, in aggravated cases, criminal sanctions. Furthermore, Articles 720 and 721 of the Labor Code classify omissions in social-security contributions as a serious offense, punishable by fines of up to twelve minimum wages and, in aggravated cases, sanctions under the Penal Code. Law 87-01 further deems any omission or falsification of earnings declarations, or delays in employer contributions, a breach of statutory obligations.

By contrast, for workers, participating in informal arrangements primarily constitutes non-compliance with tax obligations under Articles 253 and 254 of the Tax Code, with joint responsibility with their employers. Moreover, employees have the right to bring claims in specialized labor courts for non-registration, sub-minimum pay, or under-declared contributory bases. Judges routinely privilege the reality of the employment relationship over the paperwork, so bank transfers, rosters, and testimony can establish the true wage. Moreover, remedies include retroactive registration, back pay up to the legal minimum, recalculation of bonuses and severance based on the actual wage, and payment of missed social security contributions with surcharges and interest.

3 Data

We construct a linked firm-month and firm-year panel by merging tax records from the *Dirección General de Impuestos Internos* (DGII) with payroll records from the Social Security Treasury (TSS or CNSS). The linkage is deterministic via the tax ID (RNC) and the official RNC-to-TSS employer crosswalk provided by the agencies[4]. Sources are non-overlapping by design: DGII files contain tax outcomes, and TSS records contain social-security outcomes. More precisely, our data sources are the following:

TSS payroll records (monthly). For firm i and month t we observe registered headcount and the contributory base used to compute pension and health contributions.

DGII payroll and corporate tax fillings (monthly and annual). Monthly IR-3 returns report payroll taxable salary and ISR withheld on wages. Annual IR-2 returns report firm-level data, such as the firm's industry and location, gross income, costs, and assets, among others.

Our study includes all firms with a valid RNC that received one of our messages in November 2024, which coincides with the universe of firms that filed an IR-2 in 2023: 67,570. We define two analysis samples mirroring the design: (i) firms with reported employees at baseline; and (ii) firms without reported employees at baseline. Monetary variables are expressed in current pesos.

As annual corporate returns (IR-2) for a given year are filed in April of the following year,

[4]The tax authority linked firm- and employee-level administrative records using official identifiers. We received the de-identified panel and used it to design and implement the experiment.

whereas payroll information from TSS records and IR-3 withholdings is available in month $t+1$ for wages paid in month t, there is a slight lag in the firm-level data usable for descriptive statistics and results. At present, we have monthly data from January 2024 to July 2025, and annual filings for 2023 and 2024 (filed in 2024 and 2025, respectively).

The working panel for the results is the union over months of firms observed in either source. First, a firm is considered active in a given month if it appears in TSS or files an IR-3. Second, when an outcome requires monthly data (e.g., payroll or headcount), we use IR-3 and TSS, while relying on pre-experiment annual firm data as controls. Finally, outcomes that require firm-level information, such as profits, gross income, and costs, are computed from IR-2 returns. Hence, post-treatment firm-level results based on annual accounts will be available in 2026, once 2025 filings are received, though some results can already be obtained using 2024 firm-level data.

3.1 Descriptive Statistics

Our experimental frame is the universe of registered private–sector firms that filed for fiscal year 2023 (67,570 firms). Baseline characteristics use the linked DGII–TSS panel: 50,396 firms with at least one reported employee in 2023 and 17,123 firms without employees (Tables 9–15, Figures 19–21). Throughout, firm-level outcomes refer to fiscal year 2023 (filed April 2024), while worker-level outcomes use October 2024 to reflect the last fully pre-treatment month.

Registered firms reporting zero employees are concentrated in consumer–facing activities and the capital region, and most report positive profits (Tables 9-10 and 11). At the same time, tax exemptions are rare in this group (Table 13). The joint observation of sales and profits with no registered workers is consistent with a mix of owner–only operations and off–the–books hiring in short–duration tasks. Because the asset–based tax is common in this segment (Table 14), raising reported payroll need not increase contemporaneous profit–tax liability, which makes transitions from zero to positive TSS headcount a particularly informative and policy–relevant response margin for our informality treatments.

Firms reporting employees in the last fiscal year have a heavily skewed firm size distribution toward small establishments. By headcount, roughly seven in ten firms with employees are considered micro and nearly one-quarter are small, according to the CNS firm size classification, with very few medium or large units (Table 15). Sectoral and geographic composition is dominated by consumer-facing activities and the capital region: commerce and services together account for about two-thirds of establishments, and 62.1% of firms with employees (73.8% without employees) are in Distrito Nacional (Table 9, Table 10).

Minimum-wage floors bind for a nontrivial share of registered workers. In the non-sectorized private sector, 21.45% of workers report a contributory base below the applicable floor, and 36.9% of firms have at least one worker below the floor (Table 16 and Figures 19–21). These patterns are consistent with underreporting of the contributory base.

Non-compliance with the minimum wage has been an issue that the government has sought to deter. In 2019, the *Resolution 471-02 Against Payments Below the Minimum Wage* was issued, requiring firms either to justify any sub-minimum-wage payment to the tax authority or to accept an automatic adjustment to the sectoral floor. Prior to that year, the share of workers earning below the minimum wage reached as high as 40% among firms classified as *large* by the labor ministry (see Figure 3a).

Profits are right-skewed with a substantial minority of losses. Among firms with employees, 79.4% report positive profits and 20.6% losses, while for firms without employees the corresponding shares are 84.4% and 15.6% (Table 11 and Figure 18). About a quarter of firms with employees pay the asset-based minimum instead of the profit tax (Table 14), weakening contemporaneous incentives for payroll formalization because wage deductibility does not reduce liability on the asset branch. Exposure to personal income tax on wages is limited at baseline: only 37.9% of firms with employees have any ISR-paying worker over 2024–2025 (Table 12).

As small firms dominate the frame and shape the margins we study, we also present the statistics of firms of at most six registered workers (the median by headcount). In this subsample of firms, only 21.5% have any ISR–paying employee over 2024–2025, nearly 30% pay the asset–based minimum instead of the profit tax, and more than two–thirds are classified as micro by CNS (Tables 22–25).

Overall, the prevalence of small firms, the binding minimum-wage floor with limited bunching, the sizable loss share, the importance of the asset-tax floor, and the narrow ISR base jointly indicate ample scope for changes in reported bases and registrations, which are the margins that motivate our experiment.

4 Experimental Design and Empirical Strategy

4.1 Experimental Design

We implement a randomized information experiment that communicates the risk of labor-court lawsuits when firms hire informal workers or make PUTs, and the possibility that such cases might trigger tax audits. The unit of randomization is the firm, and the sampling frame is the universe of registered private-sector firms that filed for fiscal year 2023 with the DGII. The assignment was conducted at the firm level within two populations: firms with employees and firms without employees.

Messages were delivered on November 14, 2024, as pop-up notices inside firms' online DGII accounts. Because firms view the notice only upon their next login, exposure is effectively staggered at the firm level. As a result, the effective treatment date may differ across firms, potentially slowing or attenuating short-run treatment effects. In addition, employers reading the notice are not required for inclusion: accountants may receive the message on behalf of the firm, which

remains in its assigned arm. This may help explain why below-median firms exhibit stronger responses, as shown in the sections that follow.

All the messages rely on labor lawsuits against informality within registered firms. Within this same topic, we develop different sub-topics. We designed five deterrence messages that differ only in the informality margin they target and in whether they simply state legal exposure in labor courts or also note that a court case can prompt checks at DGII. Two arms address PUTs: one explains that off-the-books payments erodes contributory benefits and can lead to lawsuits in labor courts, the other adds that information revealed in such cases may be used by the tax authority to initiate audits.[5] Two arms target unregistered employment inside registered firms, using analogous language that substitutes informal employment for PUTs. A fifth arm reminds firms of the statutory 10% profit-sharing obligation and notes that employees may report suspected underreporting, which can trigger verification and audits. A neutral filing deadline reminder serves as the control.

Firms with employees are eligible for all five messages as well as the neutral reminder, while firms without employees are eligible for the unregistered employment variants and the neutral reminder. All texts were jointly prepared with DGII in Spanish and system-delivered to assigned accounts under DGII branding.

Figures 6 and 7 report arm sizes for the two populations we study, and Figure 5 documents the timeline motivating our pre- and post-intervention windows. Balance by arm is presented in Tables 1 and 2. Appendix C reproduces the exact message wording.

4.2 Empirical Strategy

Our randomized DGII account notices generate clean arm indicators that we follow at monthly (payroll, headcount, ISR-withholding) and annual (profits, tax regime) frequencies. The backbone is a two-by-many difference-in-differences with firm and time fixed effects. We then implement estimators tailored to the outcomes' support and the design.

4.2.1 Main DiD estimand and event-time decomposition

Let i index firms, t months (or years), and $g \in \mathcal{G}$ treatment arms, with one omitted baseline. With D_{ig} the arm indicator and Post_t the common post period, the DiD backbone is

$$Y_{it} = \alpha_i + \lambda_t + \sum_{g \in \mathcal{G}} \beta_g \left(D_{ig} \cdot \text{Post}_t \right) + \theta' X_i + \varepsilon_{it}, \tag{1}$$

where α_i and λ_t absorb time-invariant firm factors and common shocks, and baseline X_i enter only for precision. Each β_g is the arm's intent-to-treat effect relative to baseline. To probe dynamics

[5] This version increases the salience of audit propagation by stating that information disclosed in litigation may be shared with DGII/TSS under existing rules.

and parallel trends, we replace Post_t with event-time indicators,

$$Y_{it} = \alpha_i + \lambda_t + \sum_{k \neq -1} \sum_{g \in \mathcal{G}} \beta_{gk} D_{ig} \cdot \mathbb{1}\{t - T_0 = k\} + \theta' X_i + \varepsilon_{it}, \tag{2}$$

taking $k = -1$ as the reference month before the first mailing T_0.

The estimand throughout is the intent-to-treat (ITT): the average effect of assignment to a message arm on outcomes, regardless of whether the notice was actually opened or read. In (1)–(2), each coefficient $(e^{\beta_g} - 1)$ is therefore an ITT semi-elasticity relative to the omitted arm. We emphasize ITT as the policy-relevant estimand because exposure at the employer level is unobserved, and notices may be read by accountants or not at all. ITT is point-identified by randomization and is the relevant policy estimand for send-at-scale interventions. In addition, it is conservative when spillovers are positive, as such interference attenuates effects toward zero. It is important to understand that we will not necessarily be recovering the ATE or the LATE of the experiment.

Conceptually, the ITT is the effect of assignment regardless of exposure, $\text{ITT} = \mathbb{E}[Y \mid Z = 1] - \mathbb{E}[Y \mid Z = 0]$, where Z is the random assignment indicator (to a given arm versus baseline). Instead, the ATE is the mean effect of actual exposure in the population, $\text{ATE} = \mathbb{E}[Y(1) - Y(0)]$. To interpret ITT as the ATE of exposure, we need either perfect compliance (everyone assigned is exposed and no one else is) or a design that randomizes exposure directly (e.g., enforced delivery with acknowledgment). Absent that, point identification of the ATE follows under selection on observables for exposure, $D \perp (Y(1), Y(0)) \mid X$, together with overlap and SUTVA (no spillovers). In our case, where we expect that compliance is imperfect and there is the possibility of spillovers[6], then $\text{ITT} \neq \text{ATE}$.

Moreover, the local average treatment effect (LATE) is the average effect only for the units whose behavior is actually moved by the instrument, the compliers: $\text{LATE} = \mathbb{E}[Y(1) - Y(0) \mid D(1) > D(0)]$. Under independence of Z, exclusion (assignment affects Y only through exposure D), monotonicity $D(1) \geq D(0)$, and a nonzero first stage $\pi = \mathbb{E}[D \mid Z = 1] - \mathbb{E}[D \mid Z = 0] > 0$, the Wald relation yields $\text{LATE} = \text{ITT}/\pi$. In general, $\text{LATE} \neq \text{ATE}$ because compliers need not be representative of the population. Furthermore, π equals the share of compliers only under one-sided noncompliance. These statements also rely on SUTVA (no interference/externalities). Thus, if messages to other firms can affect a firm's outcome (e.g., via shared accountants), exclusion may fail.

4.2.2 Main specification: PPML with high-dimensional fixed effects

Outcomes in our setting are non-negative and frequently equal to zero (payroll, headcount, ISR). Log-like fixes such as $\log(1 + Y)$ or $\text{arcsinh}(Y)$ yield estimands that are not unit-invariant and can be arbitrarily sensitive to the extensive margin, so the usual "percent-effect" interpretation breaks

[6] Messages sent to two different firms can be received by the same accountant, especially in larger firms.

down when treatment moves observations from zero to positive values. As argued by (Chen and Roth 2023), generalized linear models with a log link, Poisson Pseudo Maximum Likelihood (PPML) in particular, retain zeros, deliver scale-invariant proportional effects, and map naturally into event-study plots. This motivates our choice of PPML as the main specification.

A large methodological literature further supports PPML in contexts like ours. Log-linear OLS is inconsistent under multiplicative heteroskedasticity and discards zero outcomes, whereas PPML consistently estimates the conditional mean without requiring Poisson variance and naturally accommodates zeros (Santos Silva and Tenreyro 2006). Simulations further show markedly lower finite-sample bias for PPML relative to log-OLS in typical applications (Santos Silva and Tenreyro 2011). In high-dimensional panels, PPML integrates cleanly with many fixed effects and respects structural constraints behind common empirical models, aiding interpretation and reducing functional-form misspecification (Fally 2015, Head and Mayer 2014). Applied handbooks and policy guides also recommend PPML as the default for non-negative outcomes with zeros and heteroskedasticity (Yotov et al. 2016, Head and Mayer 2014). Finally, fast and numerically stable routines exist for PPML with multi-way fixed effects and built-in separation diagnostics, which we use in all specifications (Correia et al. 2020).

Thus, the specification goes as follows: Let i index firms, t periods, and $g \in \mathcal{G}$ treatment arms (one omitted). With D_{ig} arm indicators, Post_t a post-treatment indicator, α_i firm fixed effects, λ_t time fixed effects, and X_i baseline covariates included for precision, the conditional mean is

$$\mathbb{E}[Y_{it} \mid D_{i\cdot}, \text{Post}_t, X_i, \alpha_i, \lambda_t] = \exp\Big(\alpha_i + \lambda_t + \sum_{g \in \mathcal{G}} \beta_g D_{ig} \cdot \text{Post}_t + \theta' X_i\Big).$$

Fixed effects absorb time-invariant firm heterogeneity and common time shocks, so identification comes from within-firm changes after assignment relative to the pre-period. For arm g, $\hat{\beta}_g$ is the post-period ITT log-point semi-elasticity effect of each treatment with respect to the baseline arm. When we stratify by firm size or other pre-specified bins, we estimate the same specification with interactions. In event-time graphs, points for $k \neq -1$ plot $\hat{\beta}_{gk}$ relative to the month before mailing, so flat pre-period estimates and a discrete post jump indicate a clean treatment onset.

Observations with larger fitted means receive more weight, which is desirable if the interest includes effects on aggregates. Because PPML is a generalized linear model with a log link, zeros remain in the sample, and percent effects are scale-invariant even when treatment moves firms from zero to positive outcomes. In contrast, ad hoc log fixes (e.g., $\log(1+Y)$) change the estimand and confound the percent interpretation at the extensive margin. We cluster standard errors at the firm level to allow arbitrary serial correlation within firms.

With many fixed effects, separation can occur. Hence, we implement the separation diagnostics from high-dimensional PPML and drop separated cells to ensure existence and convergence of the MLE, following Correia et al. (2020).

4.2.3 Design-based robustness: ANCOVA

We complement PPML with a design-based ANCOVA to verify that conclusions do not depend on a log-link/multiplicative mean structure. In randomized designs, ANCOVA with baseline outcomes is consistent and typically more efficient than unadjusted comparisons, especially when implemented with robust standard errors (Lin 2013, Imbens and Rubin 2015, Wang et al. 2019). Using PPML for our primary specification keeps zeros, yields scale-invariant semi-elasticities, and matches the non-negative support of our outcomes, while ANCOVA provides a transparent robustness check (Santos Silva and Tenreyro 2006, Rosenblum and van der Laan 2010).[7]

For outcomes observed once after the intervention, our ANCOVA specification is

$$\mathbb{E}[Y_i \mid D_i, B_i] = \exp\big(\alpha_i + \sum_{g \in \mathcal{G}} \tau_g D_{ig} + \gamma' B_i\big),$$

where B_i denotes pre-period outcomes (the last three months before treatment, plus the 2023 firm-level outcome). In a randomized experiment, τ_g identifies the arm mean difference, and $\gamma' B_i$ improves precision. The estimate $\widehat{\tau}_g$ can be interpreted as the post-period ITT log-point semi-elasticity effect of each treatment with respect to the baseline arm. This allows direct comparison of the ANCOVA results with our main PPML estimates.

4.2.4 Heterogeneity: CATE via causal forests

The institutional setting suggests strong nonlinearity by firm size tiers and distance to minimum-wage thresholds, profitability, and the binding asset-tax floor, special regimes, sectoral turnover, payroll digitalization, and litigation exposure. To study where deterrence is more or less powerful, we estimate conditional average treatment effects with causal forests, which deliver nonparametric CATEs with valid inference by combining sample splitting with "honest" tree growth (Wager and Athey 2018). We treat forests as a complement to pre-specified parametric interactions, not a replacement.

We work in a potential outcomes framework. For a binary contrast $W_i \in \{0, 1\}$ (e.g., any awareness versus baseline, or propagation versus awareness), with covariates X_i and outcomes Y_i, the estimand is the conditional average treatment effect

$$\tau(x) \equiv \mathbb{E}[Y_i(1) - Y_i(0) \mid X_i = x].$$

Under unconfoundedness, given X and known assignment probabilities from our randomization, causal forests estimate $\tau(x)$ through local moment equations. Following the Robinson orthogonalization (Chernozhukov et al. 2018), define the nuisance functions $m(x) = \mathbb{E}[Y \mid X = x]$ and

[7] To our knowledge, the only study where both ANCOVA and PPML are both used as specifications to show the results is Ali et al. (2025).

$e(x) = \mathbb{P}(W = 1 \mid X = x)$ (here $e(x)$ is known by design, but we still residualize to improve efficiency). Form residuals

$$\tilde{Y}_i \equiv Y_i - \hat{m}(X_i), \qquad \tilde{W}_i \equiv W_i - \hat{e}(X_i),$$

and observe that $\tau(x)$ solves the orthogonal moment condition

$$\mathbb{E}\big[\psi\big(Y_i, W_i, X_i; \tau(x)\big) \,\big|\, X_i = x\big] = 0, \quad \text{with} \quad \psi(y, w, x; \tau) \equiv \big(y - \hat{m}(x) - \tau\,(w - \hat{e}(x))\big)\,(w - \hat{e}(x)).$$

A causal forest estimates $\tau(x)$ by growing many honest trees that form adaptive neighborhoods around x and then solving the localized sample analogue of the moment equation,

$$\sum_{i=1}^{n} \alpha_i(x)\,\big(\tilde{Y}_i - \tau(x)\,\tilde{W}_i\big)\,\tilde{W}_i \;=\; 0,$$

where $\alpha_i(x)$ are the forest weights that concentrate on observations in leaves that frequently co-occur with x across trees (Wager and Athey 2018, Athey et al. 2019). The solution has a closed form

$$\hat{\tau}(x) \;=\; \frac{\sum_i \alpha_i(x)\,\tilde{Y}_i\,\tilde{W}_i}{\sum_i \alpha_i(x)\,\tilde{W}_i^2},$$

and honesty (sample splitting between leaf formation and leaf estimation) makes $\hat{\tau}(x)$ approximately unbiased with valid asymptotic variance. We report out-of-bag $\hat{\tau}(X_i)$ with pointwise confidence intervals and global tests of heterogeneity based on the dispersion of $\hat{\tau}(X)$ (Wager and Athey 2018).

Interpretation proceeds in three steps. First, we visualize where effects concentrate by plotting $\hat{\tau}(X_i)$ against interpretable summaries such as deciles of distance to the floor or bins of profitability. Second, we assess calibration with a best-linear-predictor regression that projects realized transformed outcomes on W_i interacted with $\hat{\tau}(X_i)$; if the slope is near one, the forest's ranking is informative (Athey and Wager 2019). Third, we conduct a simple targeting simulation that ranks firms by $\hat{\tau}(X)$ to gauge potential gains from focusing messages on high-CATE firms, while discussing operational and fairness constraints. Throughout, we cross-check patterns discovered by the forest with a small set of pre-specified interactions inside PPML to ensure that the main claims do not depend on the machine-learning choice.

5 Results

We begin by showing that firms do not respond in the extensive margin. This is critical in studies like ours, where the intervention occurs several periods after baseline characteristics are measured (see Figure 5). This is a feature of the setting, where the main tax form is filed annually in April of the following year. Thus, some firms may have closed before the intervention. Figure 9 shows

that as we move forward in time, a larger share of firms disappear from Social Security data. For monthly VAT records, the share is larger in levels (firms may report VAT payments in one period and not in others), but it jumps discretely as the new calendar year begins. Importantly, we don't see significant differences between the pooled treatment arms with respect to the control around due to the intervention. This is especially important for small firms (Panels 9c and 9d) to ensure that extensive margin responses do not drive our results.

5.1 Pooled Treatments

Figure 10 shows the effect of our intervention on total payroll from our baseline *dif-in-dif* specification, captured by β_k in Equation 2. We group consecutive months in pairs. This means that β_4 should be interpreted as the percentage difference in total payroll between the treatment and control groups 9-10 months after the intervention, relative to the difference one period before the intervention. We find a positive and statistically significant effect for firms below the median firm size (5 employees) and a precise null effect for larger firms. For small firms, we find that the effect persists for up to 10 months after the intervention, the latest period for which data are available.

The null effect for large firms is consistent with most papers in the literature, which find that deterrence messages are effective primarily with small firms. One possible explanation is that illegal labor market practices are rare in these firms. While to a lesser extent, there is still some evidence that PUTs and informality exist in larger firms. We think the null effect for large firms is primarily driven by the relevance of the information and who receives it. The probability that a firm has been sued grows exponentially with the number of employees,[8] meaning that medium and large firms are likely to be aware of lawsuit risks due to their own experience. Second, in small firms, the person who fills out the tax forms and the social security information is likely to be the same person who decides how to pay wages. Therefore, when targeting smaller firms, the messages may be more likely to reach those with decision-making power over wage payments.

Looking at the total number of employees in each firm, we find response patterns consistent with those for total payroll but with significantly smaller magnitudes (Figure 11). Although the coefficient is not statistically significant, we suspect that employment may be playing a role in explaining the effects on total payroll. However, the evidence suggests that this role is rather small, and PUT seems to be the key margin of adjustment.

As explained in Section 2, firms withhold employees' income taxes. In our monthly Social Security data, we can see the amount withheld from each employee. Figure 12 shows the β_k coefficients from Equation 2 using total withheld income tax as the outcome variable. While noisier, the point estimate is twice as large as the one for total payroll and statistically significant at the 10% level. As shown in 18, only the top 22.6% of employees pay income taxes, as the others earn below the exemption threshold. This has two main implications for the standard errors. First, firm

[8] See Feinmann et al. (2022) for evidence in the Brazilian context using administrative data on labor lawsuits.

FE absorbs firms that did not have any employees above the threshold during the whole period. Second, the exemption threshold induces a larger variance in this variable relative to total payroll. Finally, the relatively larger response in withheld income tax indicates that wage payment adjustments are more common for high-income earners than for low-income earners. For instance, if only low-income earners reduced their PUTs, we should not expect any effect on withheld income taxes, since they are exempt.

5.2 Treatment Arms

Before the experiment, we pre-registered differences across treatment arms. First, for a given level of treatment intensity (*strong* vs. *soft*), we expected differences between the PUTs, the informality, and the profit intervention. We hypothesized that the message explicitly mentioning *off-the-books* employees would have a larger effect on employment. In contrast, the message on lawsuits for profit under-reporting should have a minor impact on payroll. Second, we pre-registered heterogeneous effects for the *strong* and *soft* message depending on firm size. The underlying theory (Kleven et al. 2016) is that highlighting the possibility that a lawsuit triggers a tax audit should affect large firms relatively more, given that the probability that at least one employee reports grows exponentially with the number of workers.

Table 3 shows that there are no differences between the treatment arms on PUTs, informality, and profits. Moreover, Table 3 finds no difference between the *strong* and the *soft* messages. This lack of heterogeneity is consistent across all outcomes. We do not interpret this as a failure of the theory highlighted by Kleven et al. (2016). Instead, these results align with most papers in the information-provision and deterrence message literature, suggesting that letter recipients may not distinguish the details of the wording, or that the message may function as a scarecrow (Bergolo et al. 2023).

Relative to our pre-registration plan, these results suggest an explicit limitation in our setting for teasing apart the mechanisms highlighted in Kleven et al. (2016), as well as for leveraging credible variation in awareness of lawsuits to prevent *specific* illegal labor practices. Therefore, we poll our treatment arms and interpret them as an awareness shifter regarding labor lawsuits in general. In what follows, we study who responds to this general treatment based on a pre-specified and a data-driven heterogeneity analysis.

5.3 Pre-specified Heterogeneity

We present the payroll and employment responses by industry in Table 4. For small firms (Panel 14a and 14b), we find that manufacturing and finance have the largest responses (although standard errors are large for manufacturing). Still, the point estimate for construction is 2pp, roughly the same as the overall effect. This heterogeneity is hardly explained by manufacturing and finance being sectors with relatively high shares of informal payments. Other papers have shown

that restaurants, construction, services, and cash-intensive sectors have more prevalent PUTs and informality (Feinmann et al. 2022, Franco 2025, Bérgolo et al. 2024, Ulyssea 2020). Instead, we consider the possibility that the heterogeneity is primarily driven by which firm found the information more relevant in terms of receiving it, processing it, and changing priors. As highlighted in Section 4.2, our estimates are ITT coefficients, meaning that they are affected by whether the information really reached firm owners.

We use our *Risk Score* variable to measure good and bad tax behavior. This is not a variable that captures tax compliance. The DGII has built this variable based on tax debts, responses to DGII's messages, and the frequency of interaction with the tax authority, among other things. Therefore, we interpret this variable as whether a firm is more or less responsive to messages from the DGII. Figure 14 shows a positive gradient in the point estimate as firms have a better "tax behavior". Note that the effects are very close to zero for firms that typically do not respond DGII's messages, and have accumulated significant tax debt. Together with the industry heterogeneity, we interpret these findings as evidence that higher ITT coefficients are not necessarily driven by firms that have a larger share of informal payments, but by those for whom the information was more relevant or salient.

6 Conclusions

This paper examines informality within registered establishments, a margin that is difficult to monitor because both PUTs and unregistered workers are often sustained by tacit collusion between employers and employees. In partnership with the Dominican tax authority, we implemented a nationwide firm-level experiment that delivered labor-lawsuit salience messages through the official DGII online accounts and tracked administrative outcomes at monthly (payroll, headcount, withheld income tax) frequencies.

The intervention increased reported payroll among small firms. For establishments below the median by headcount, intent-to-treat effects on total payroll are approximately 2 percentage points relative to the pre-treatment mean and persist for at least ten months. Employment moves in the same direction but with smaller magnitudes, while firm-level withholding on personal income tax rises by more than payroll withholding. Together, these patterns point to an adjustment dominated by correcting under-reported contributory bases rather than large changes in headcount, consistent with a reduction in PUTs on the intensive margin. These findings align with models in which credible third-party verification tightens reporting incentives (Kleven et al. 2011) and echo evidence that enforcement salience and verifiable trails raise compliance in other tax domains (Pomeranz 2015, Carrillo et al. 2017, Naritomi 2019).

We detect no response among larger firms and no meaningful differences across message variants that emphasized PUTs, off-the-books hiring, or profit-sharing lawsuits, nor between stronger and softer formulations. A potential interpretation is that credible lawsuit reminders, rather than

wording nuances, shifted perceived detection enough to change reporting among smaller establishments, whereas larger firms either already internalized these risks or routed messages to personnel without wage-setting authority. This pattern is consistent with field evidence where deterrence content acts as scarecrows independently of the contents of the message (e.g., Bergolo et al. 2023).

From a policy perspective, low-cost digital communication can raise tax bases in the near term among smaller firms without relying on resource-intensive inspections. Our estimates are intent-to-treat and therefore conservative in the presence of positive spillovers. The main limitations are imperfect measurement of exposure (open/click behavior), staggered viewing tied to platform logins, pooled arms that constrain mechanism separation, and the lagged availability of some annual outcomes.

7 Next Steps

In the coming weeks we will extend the empirical analysis with data–driven heterogeneity. Using honest causal forests, we will estimate CATEs as laid out in Subsection 4.2.4. This will provide out–of–sample, design–consistent heterogeneity estimates that complement our pre–specified moderators (size tiers, distance to the minimum–wage floor, profit vs. asset branch). We will report forest–based CATE distributions and targeted ITTs for policy–relevant subgroups, while cross–validating key patterns inside the PPML framework with a small set of pre–registered interactions.

We will then incorporate annual outcomes from DGII to study profit–related margins and tax–regime transitions. Our next data refresh will add fiscal year 2024 (filed in April 2025), where we expect transitional movements consistent with the monthly patterns. The primary policy bite is expected in fiscal year 2025, when adjustments to reported bases and headcount translate into the corporate tax base and minimum asset–tax incidence; those returns are filed in April 2026 and will be integrated as soon as they become available. Figure **??** outlines this timeline and deliverables.

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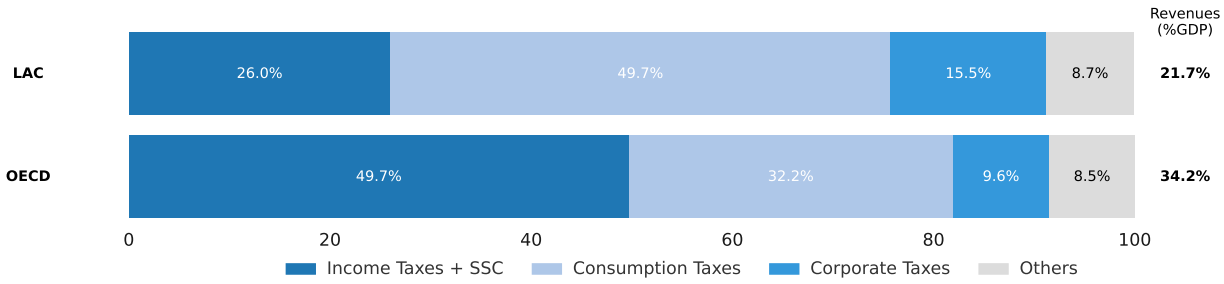
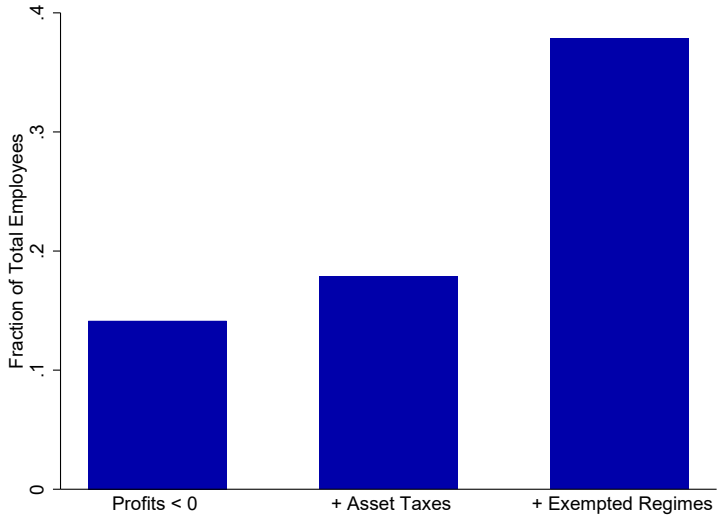
A Figures

Figure 1: Tax Collection in 2021 - Latin American and Caribbean vs. OECD countries



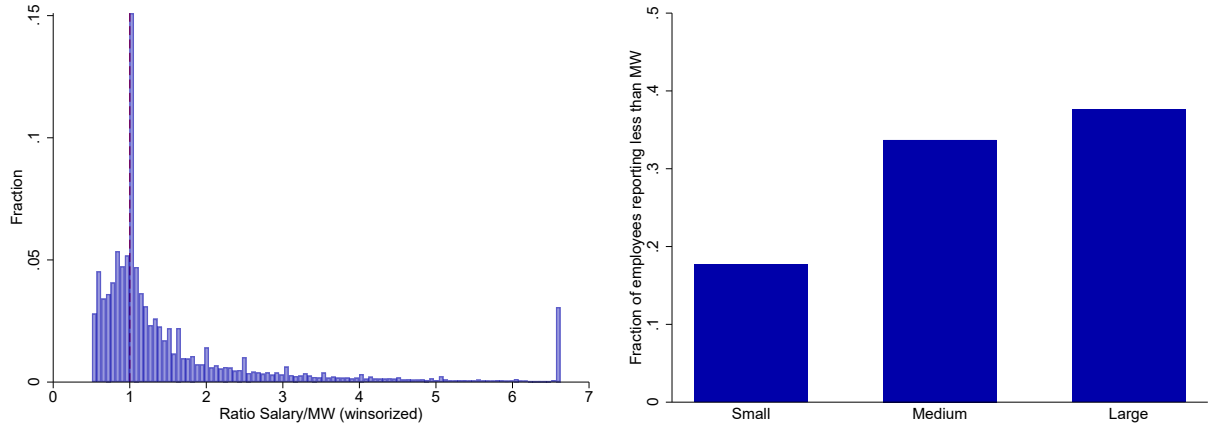
Source: OECD "Revenue Statistics in Latin America and the Caribbean", through Tax Foundation

Figure 2: Share of employees in Firms with no gains from wage reporting



Notes: This figure shows the share of employees that work in firms where the marginal wage reported is not deducted from the profit taxes. The left bar considers employees in firms that make negative profits. The second bar includes those firms for whom the asset tax is binding. The third bar adds the firms in the exempted tax regime, which means they do not pay corporate income tax.

Figure 3: Minimum Wage (2012)

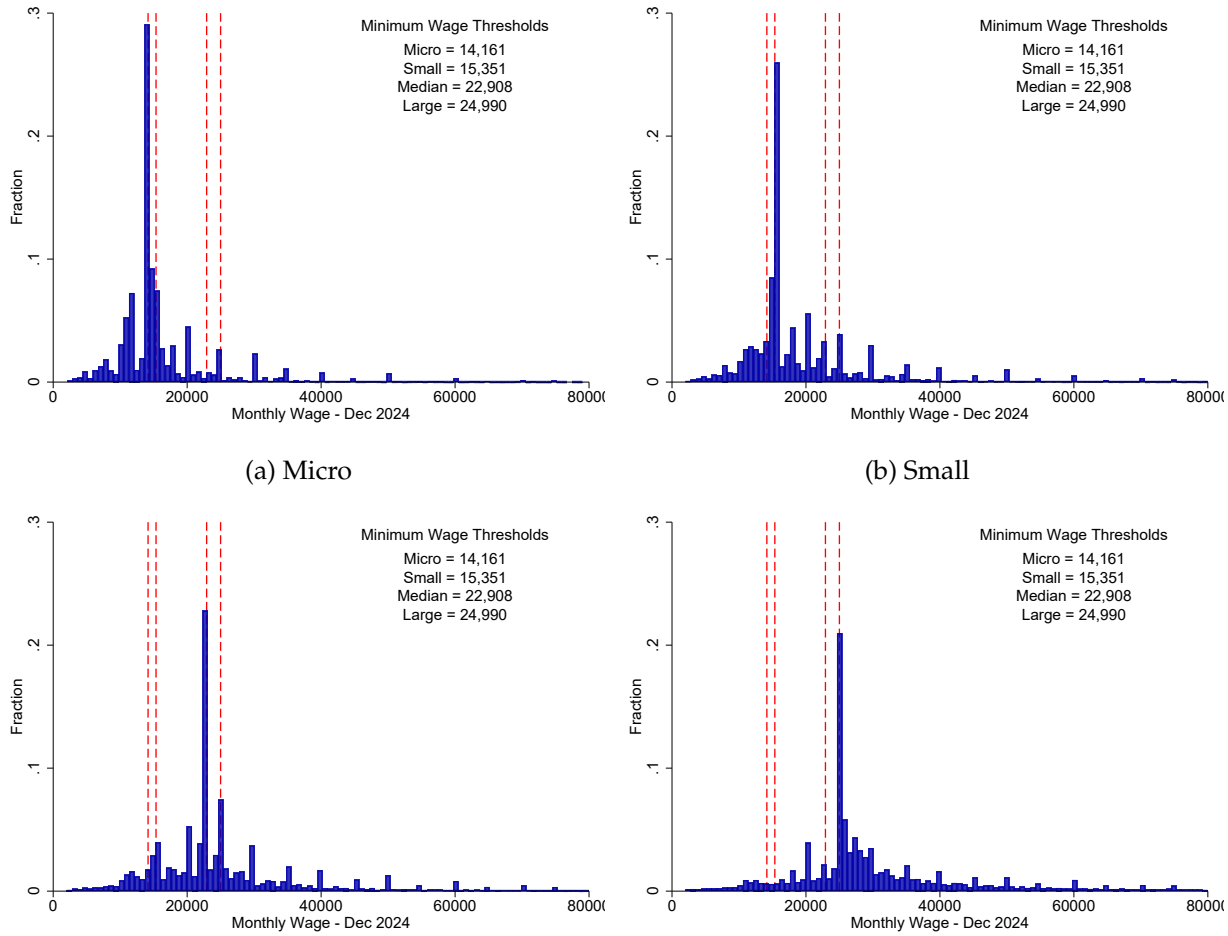


(a) All Firms

(b) By Firm Size

Notes: Figure (a) shows the distribution of wages over minimum wage in 2012 (the year with worker-level data available at the moment). The minimum wage varies with firm size and assets, forming three groups. We calculated the corresponding group for each firm and applied the corresponding minimum wage. Panel (b) shows the fraction of employees in each firm size category who report below the corresponding minimum wage.

Figure 4: Minimum Wage by Firm Size



(a) Micro

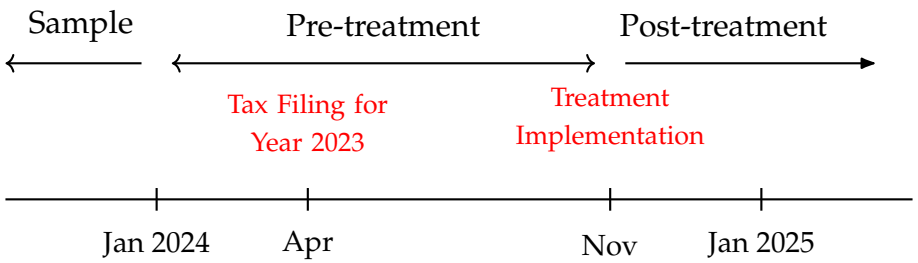
(b) Small

(c) Median

(d) Large

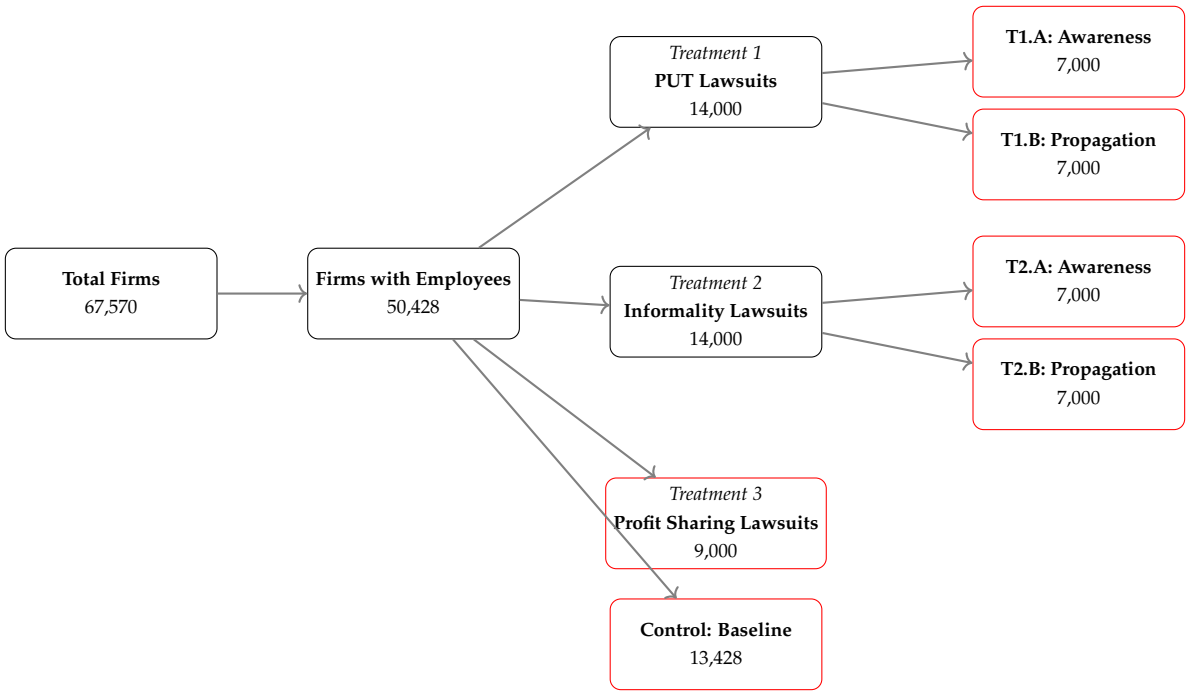
Notes: This figures splits the wage distribution by firm size, making explicit the different minimum wages that apply to each firm size. Panel (a) shows the wage distribution of employees in micro establishment. Panel (b) for those working in small establishments. Panel (c) and (d) plot the wage distribution in medium and large firms, respectively.

Figure 5: RCT Timeline



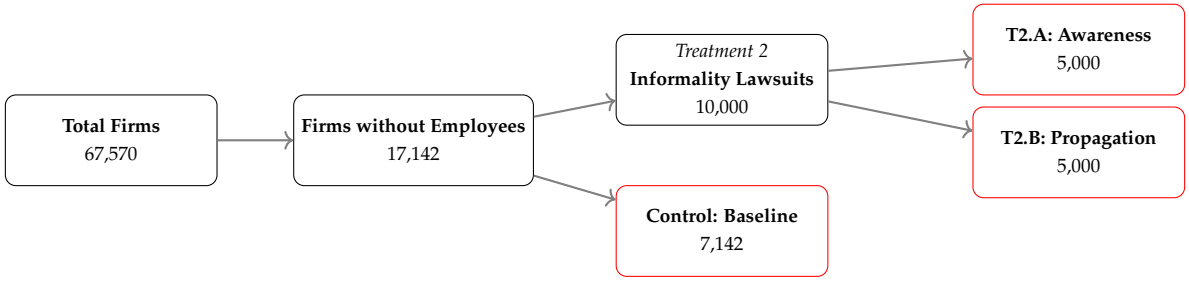
Notes: This figure shows the timeline of the experiment. The sample used in the randomization comes from the universe of private firms filing taxes in April 2024, which corresponds to the economic activity performed in 2023. We then use data from January 2024 to October 2024 as pre-treatment outcomes. The DGII sent the messages on November 2024, since then we can measure outcomes post-treatment. Currently, August 2025 is the last available month in social security data.

Figure 6: Treatment Arms - Firms with Employees



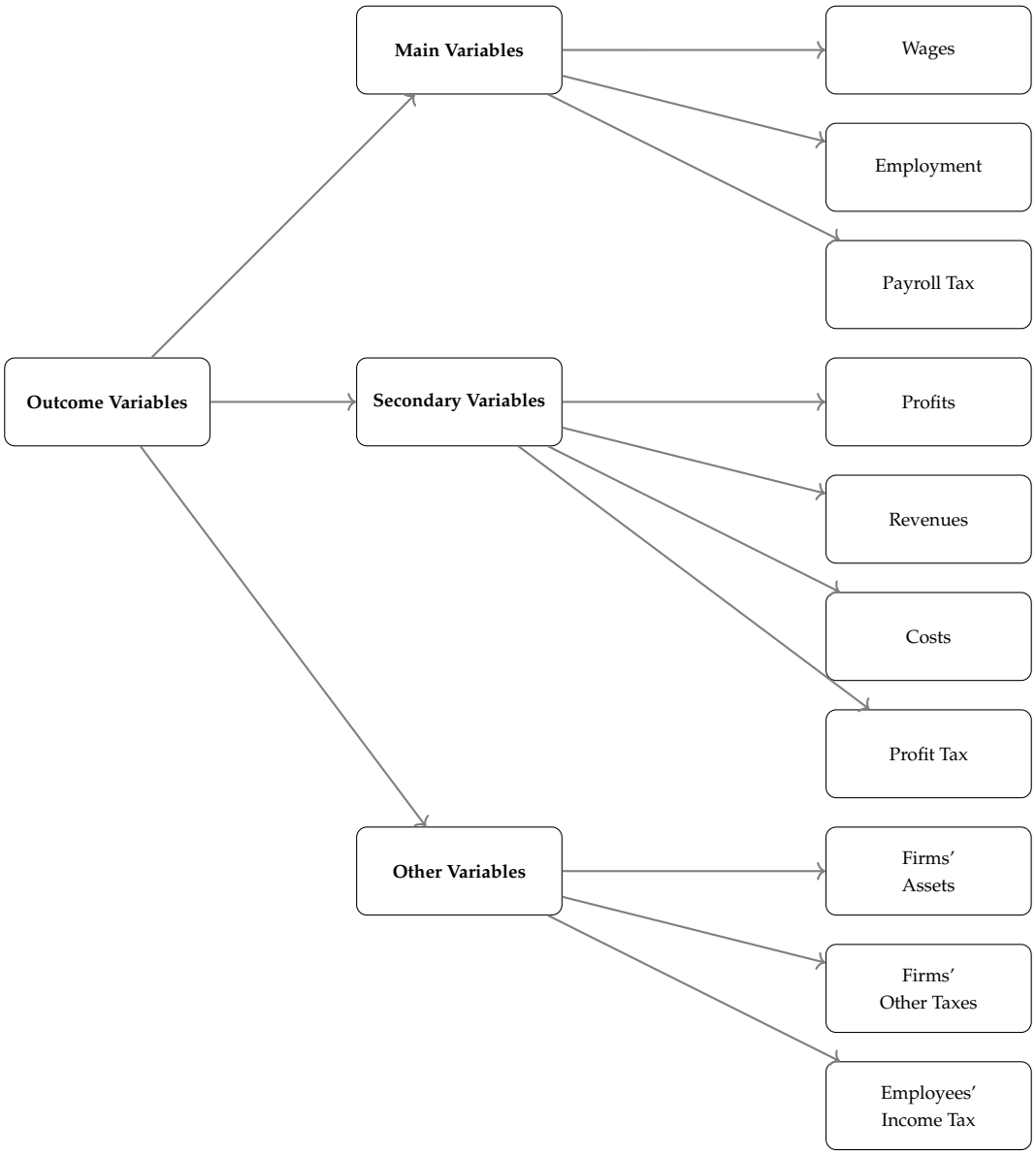
Notes: This figure shows the treatment arms for firms with employees. We had three main treatment arms and one control. The first arm received a message highlighting the risks associated with labor lawsuits if the firm pays employees under the table. The second arm received a message highlighting the risks associated with labor lawsuits if the firm hires employees off the books. The third arm received a message highlighting the risks associated with labor lawsuits if the firm does not accurately report profits. Finally, the control received a standard remainder message. Within the first two main treatment arms, we also included an *Awarness* and *Propagation* messages. The difference between the two is that the second includes an additional paragraph emphasizing that labor lawsuits may also trigger tax audits, as the tax authority is entitled to use information from lawsuits.

Figure 7: Treatment Arms - Firms without Employees



Notes: This figure shows the treatment arms for firms without employees. In this case, we only conduct the informality treatment, since they do not have formal employees who may receive PUTs. Within the main treatment arms, we also included an *Awarness* and *Propagation* messages. The difference between the two is that the second includes an additional paragraph emphasizing that labor lawsuits may also trigger tax audits, as the tax authority is entitled to use information from lawsuits. Finally, the control received a standard remainder message.

Figure 8: Outcome Variables



A.1 Results

Figure 9: Firm Exit in Administrative Records

(a) Social Security Data (All)

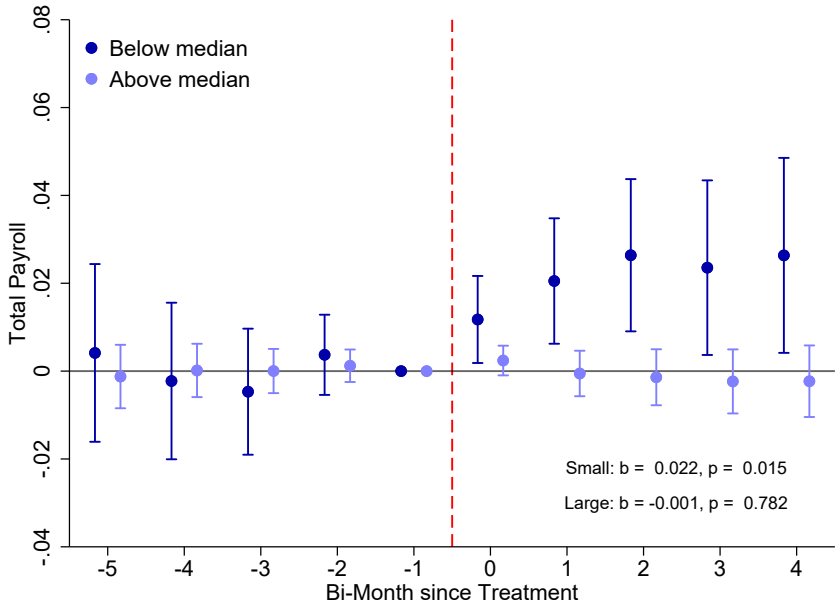
(b) Monthly VAT Tax Form (All)

(c) Social Security Data (Small Firms)

(d) Monthly VAT Tax Form (Small Firms)

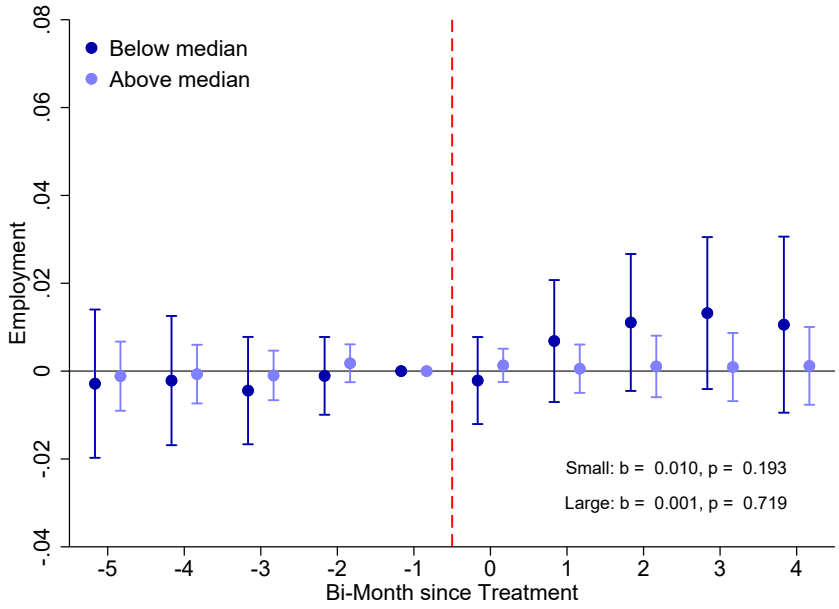
Notes: This figure shows the attrition in administrative records. Since the experimental sample comprises firms that had economic activity in 2023, some may cease their activity before the experiment or as a result of the intervention. We present attrition in both social security data and VAT tax forms, separately for all and small firms. Panel (a) shows the fraction of firms not found in the Social Security data in each month, split by treatment and control. The treatment group pools all treatment arms. Panel (b) shows the fraction of firms not found in the VAT data in each month, split by treatment and control. The treatment group pools all treatment arms. Panel (c) and (d) replicate the previous panels but focusing only on small firms, the ones that increase the reproted payroll as a result of the intervention. The vertical red line shows the time of the intervention.

Figure 10: Effects on Total Payroll - All Treatment Arms



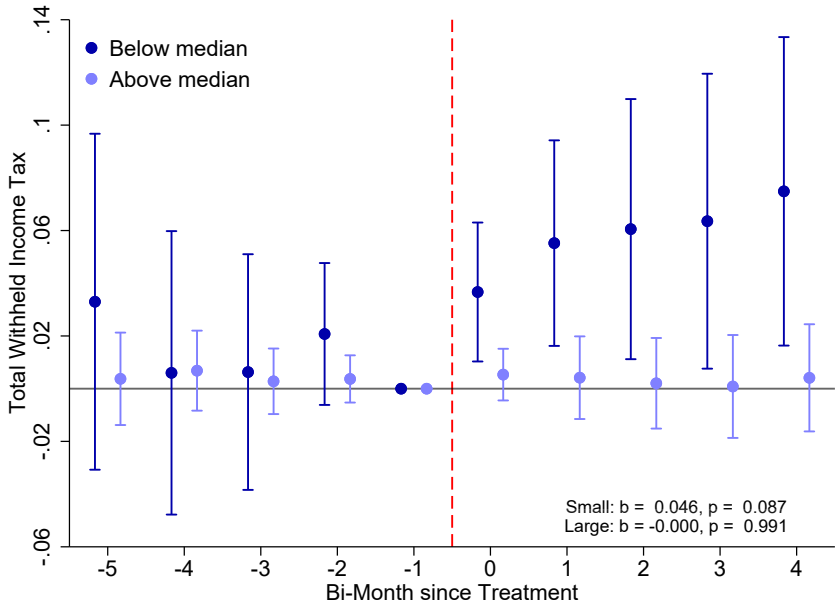
Notes: This figure shows the dif-in-dif coefficients (β_k) from equation 2, evaluating the effect on total payroll. We use the Poisson model, which is the preferred specification, and we pool all treatment arms together. The x-axis indicates the period relative to the treatment event, grouping months in pairs (e.g., x-axis = 4 means 9 to 10 months after the treatment). We split the regression by firm size. The dark blue plots the coefficients for firms below the median size (six employees), and the light blue for those above the median. Total payroll includes zeros and is winsorized at the 95th percentile. Standard errors are clustered at the firm level, and confidence intervals at the 95% confidence level are reported. The vertical red line indicated the treatment event.

Figure 11: Effects on Total Number of Workers - All Treatment Arms



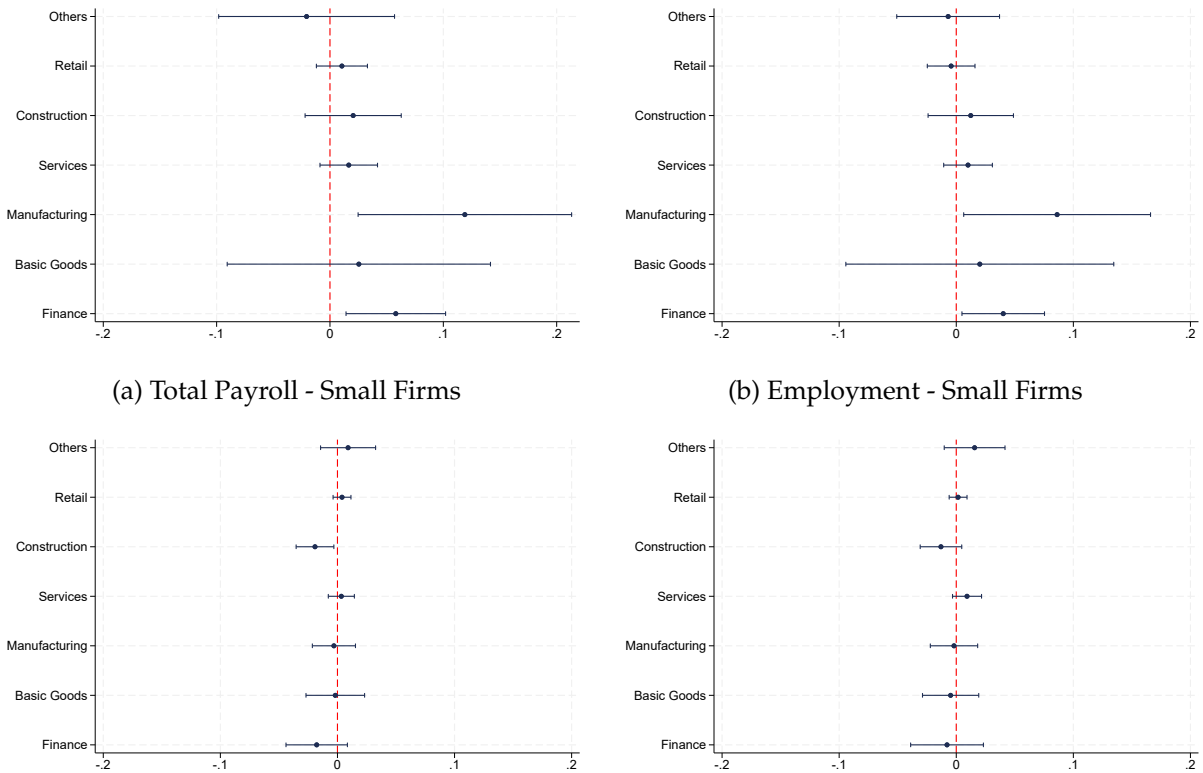
Notes: This figure shows the dif-in-dif coefficients (β_k) from equation 2, evaluating the effect on total employment. We use the Poisson model, which is the preferred specification, and we pool all treatment arms together. The x-axis indicates the period relative to the treatment event, grouping months in pairs (e.g., x-axis = 4 means 9 to 10 months after the treatment). We split the regression by firm size. The dark blue plots the coefficients for firms below the median size (six employees), and the light blue for those above the median. Total employment includes zeros and is winsorized at the 95th percentile. Standard errors are clustered at the firm level, and confidence intervals at the 95% confidence level are reported.The vertical red line indicated the treatment event.

Figure 12: Effects on Total Withheld Income Tax - All Treatment Arms



Notes: This figure shows the dif-in-dif coefficients (β_k) from equation 2, evaluating the effect on total withheld income tax. We use the Poisson model, which is the preferred specification, and we pool all treatment arms together. The x-axis indicates the period relative to the treatment event, grouping months in pairs (e.g., x-axis = 4 means 9 to 10 months after the treatment). We split the regression by firm size. The dark blue plots the coefficients for firms below the median size (six employees), and the light blue for those above the median. Total withheld income tax includes zeros and is winsorized at the 95th percentile. Standard errors are clustered at the firm level, and confidence intervals at the 95% confidence level are reported.The vertical red line indicated the treatment event.

Figure 13: Payroll and Employment Effects by Industry



(a) Total Payroll - Small Firms

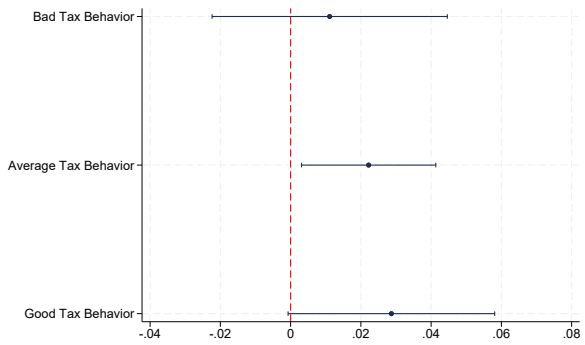
(b) Employment - Small Firms

(c) Total Payroll - Large Firms

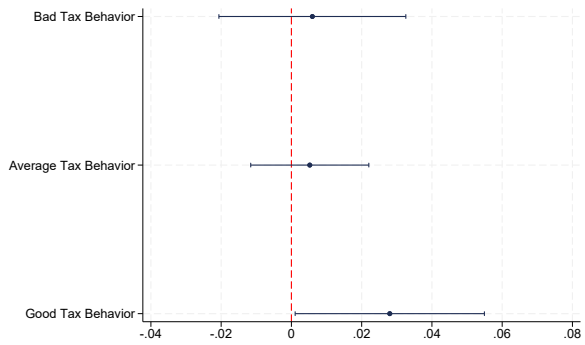
(d) Employment - Large Firms

Notes: This figure shows the dif-in-dif coefficients (β) from equation 1, evaluating the effect on total payroll and employment by industry. We use the Poisson model, which is the preferred specification, and we pool all treatment arms together. Panels (a) and (b) present results for small firms (fewer than six employees), while (c) and (d) do the same for large firms. We split the regression by firm size. Total payroll includes zeros and is winsorized at the 95th percentile. Standard errors are clustered at the firm level, and confidence intervals at the 95% confidence level are reported.

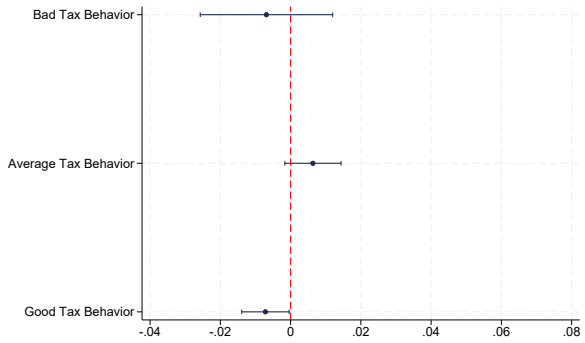
Figure 14: Payroll and Employment Effects by Risk Score



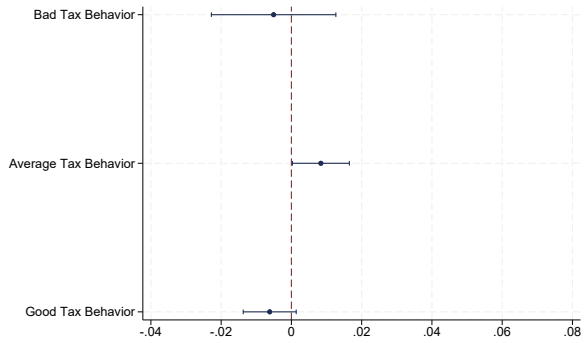
(a) Total Payroll - Small Firms



(b) Employment - Small Firms



(c) Total Payroll - Large Firms



(d) Employment - Large Firms

Notes: This figure shows the dif-in-dif coefficients (β) from equation 1, evaluating the effect on total payroll and employment by "Tax Behavior" or risk score group. We use the Poisson model, which is the preferred specification, and we pool all treatment arms together. Panels (a) and (b) present results for small firms (fewer than six employees), while (c) and (d) do the same for large firms. We split the regression by firm size. Total payroll includes zeros and is winsorized at the 95th percentile. Standard errors are clustered at the firm level, and confidence intervals at the 95% confidence level are reported.

B Tables

B.1 Balance Tables

Table 1: Balance Table for Firms with Employees

	Control	PUT-Soft	PUT-Strong	Formality-Soft	Formality-Strong	Profits
Panel A: Employment and Wages						
Employees	16.68	17.11	16.98	16.67	16.15	16.99
	(0.34)	(0.48)	(0.48)	(0.46)	(0.45)	(0.42)
Log Av. Wages	12.27	12.27	12.28	12.27	12.26	12.26
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Log Total Payroll	14.06	14.08	14.06	14.06	14.05	14.08
	(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Panel B: Firms' Balance Sheet						
Log Revenues	16.10	16.09	16.09	16.10	16.06	16.08
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.02)
Log Costs	15.85	15.85	15.84	15.85	15.83	15.84
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Log Assets	15.82	15.87	15.83	15.82	15.79	15.82
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Assets > 0	0.11	0.11	0.11	0.11	0.11	0.11
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Panel C: Region and Industry						
Special Tax Regime	0.03	0.03	0.03	0.03	0.03	0.03
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Distrito Nacional	0.43	0.44	0.44	0.44	0.44	0.43
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Santo Domingo	0.18	0.18	0.19	0.18	0.18	0.19
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Retail	0.37	0.38	0.37	0.37	0.37	0.38
	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Construction	0.09	0.09	0.09	0.09	0.09	0.09
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Hotels	0.04	0.04	0.04	0.04	0.05	0.04
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Observations	13,428	7,000	7,000	7,000	7,000	9,000

Notes: This table report pre-intervention statistics comparing treatment and control groups for firms with employees. Panel A comprises information on employment and wages from the tax form filed in April 2024. Panel B shows statistics on firms' balance sheets, while Panel C compares regional and industry information. Standard errors are reported in parenthesis.

Table 2: Balance Table for Firms without Employees

	Control	Formality-Soft	Formality-Strong
Panel A: Firms' Balance Sheet			
Log Revenues	14.14	14.15	14.13
	(0.03)	(0.03)	(0.03)
Log Costs	14.09	14.13	14.11
	(0.03)	(0.04)	(0.04)
Log Assets	14.61	14.56	14.58
	(0.04)	(0.04)	(0.04)
Assets > 0	0.27	0.26	0.26
	(0.01)	(0.01)	(0.01)
Panel B: Region and Industry			
Special Tax Regime	0.01	0.01	0.01
	(0.00)	(0.00)	(0.00)
Distrito Nacional	0.55	0.54	0.53
	(0.01)	(0.01)	(0.01)
Santo Domingo	0.19	0.19	0.20
	(0.00)	(0.01)	(0.01)
Retail	0.29	0.28	0.29
	(0.01)	(0.01)	(0.01)
Construction	0.12	0.13	0.13
	(0.00)	(0.00)	(0.00)
Hotels	0.02	0.03	0.02
	(0.00)	(0.00)	(0.00)
Observations	7,142	5,000	5,000

Notes: This table report pre-intervention statistics comparing treatment and control groups for firms without employees. Panel A shows statistics on firms' balance sheets, while Panel B compares regional and industry information. Standard errors are reported in parenthesis.

B.2 Results

Table 3: Effects by Treatment Arm - Poisson Specification

	Total Payroll		**Employment**		**Total Income Tax**	
	Small	Large	Small	Large	Small	Large
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: All treatments polled (37,000 firms) versus baseline (13,428)						
Post × Treated	0.023***	-0.002	0.009	0.005	0.060**	-0.002
	(0.008)	(0.003)	(0.008)	(0.004)	(0.024)	(0.008)
Panel B: Soft treatment (14,000 firms) versus baseline (13,428)						
Post × Treated	0.023**	0.002	0.013	0.005	0.063**	0.005
	(0.009)	(0.004)	(0.011)	(0.005)	(0.031)	(0.010)
Panel C: Strong treatment (14,000 firms) versus baseline (13,428)						
Post × Treated	0.021**	-0.004	0.007	0.006	0.059**	-0.006
	(0.009)	(0.004)	(0.008)	(0.005)	(0.027)	(0.010)
Panel D: Profits treatment (9,000 firms) versus baseline (13,428)						
Post × Treated	0.026**	-0.004	0.006	0.003	0.055*	-0.005
	(0.011)	(0.004)	(0.009)	(0.005)	(0.029)	(0.011)

Notes: This table reports the β_k coefficients from Equation 1, where each k is reported in a separate panel. Panel A reports all treatments pooled; Panel B includes the soft treatment (excluding tax audit paragraph), pooling PUT and informality; Panel C shows the strong treatment (including tax audit paragraph), pooling PUT and informality; and Panel D has only the profit treatment. Columns refer to the outcome and the sample selection. We include the effects on total payroll, employment and total withheld income tax for small and large firms separately. Standard errors are clustered at the firm level.

Table 4: Effects by Industry - Poisson Specification

	Total Payroll		**Employment**		**Income Tax**	
	Small	Large	Small	Large	Small	Large
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Hotels and Restaurants						
Post × Treated	-0.014	-0.000	-0.094	0.004	-0.839**	0.073
	(0.074)	(0.012)	(0.127)	(0.012)	(0.345)	(0.053)
Panel B: Retail						
Post × Treated	0.011	0.005	0.000	0.005	0.051	0.021
	(0.012)	(0.005)	(0.011)	(0.005)	(0.039)	(0.015)
Panel C: Construction						
Post × Treated	0.025	-0.020**	0.011	0.001	0.106*	-0.066***
	(0.022)	(0.010)	(0.018)	(0.013)	(0.054)	(0.021)
Panel D: Other Services						
Post × Treated	0.032*	-0.004	0.015	0.013	0.075	0.016
	(0.017)	(0.009)	(0.013)	(0.012)	(0.053)	(0.020)
Panel E: Manufacturing						
Post × Treated	0.112**	-0.007	0.062	-0.003	0.442**	-0.019
	(0.050)	(0.011)	(0.039)	(0.013)	(0.190)	(0.023)
Panel F: Finance						
Post × Treated	0.053**	-0.024	0.021	-0.010	0.031	-0.053*
	(0.026)	(0.016)	(0.018)	(0.016)	(0.047)	(0.029)

Notes: This table reports the β coefficients from Equation 1, where we pool all treatment arms together. Panels show the effects for different industries, including *Hotels and Restaurants*, *Retail*, *Construction*, *Other Services*, *Manufacturing*, and *Finance*. Columns refer to the outcome and the sample selection. We include the effects on total payroll, employment and total withheld income tax for small and large firms separately. Standard errors are clustered at the firm level.

Table 5: Effects by Interaction with Tax Authority - Poisson Specification

	Total Payroll		**Employment**		**Income Tax**	
	Small	Large	Small	Large	Small	Large
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: High Tax Compliance						
Post × Treated	0.036**	-0.009**	0.041**	-0.005	0.076***	-0.006
	(0.015)	(0.004)	(0.019)	(0.005)	(0.026)	(0.010)
Panel B: Medium Tax Compliance						
Post × Treated	0.021**	0.005	-0.002	0.010*	0.028	0.003
	(0.010)	(0.005)	(0.011)	(0.005)	(0.039)	(0.014)
Panel C: Low Tax Compliance						
Post × Treated	0.010	-0.003	-0.002	0.002	0.117	0.009
	(0.018)	(0.012)	(0.013)	(0.011)	(0.099)	(0.045)

Notes: This table reports the β coefficients from Equation 1, where we pool all treatment arms together. Panels show the effects for "Tax Behavior" groups, based on the risk score measure provided by the tax authority. Columns refer to the outcome and the sample selection. We include the effects on total payroll, employment and total withheld income tax for small and large firms separately. Standard errors are clustered at the firm level.

C Messages

Control: Baseline

We remind you that the tax payment must be made before the XXX day of the current year. On the DGII website (dgii.gov.do), you can find all the necessary information to complete the tax payment process.

Treatment 1: PUT Lawsuits
DID YOU KNOW THAT YOUR EMPLOYEES CAN REPORT YOU IN LABOR COURTS?

Payments not reported in the payroll constitute a violation of Articles 62 and 202 of Law 87-01 on Social Security and Articles 253 and 254 of the Tax Code. These laws protect workers in legal proceedings, implying severe penalties and significant monetary sums for the employer.

Labor justice has reported an increase in labor cases by 56.2% between 2022 and 2023, showing that more workers are aware of their rights and willing to pursue a lawsuit. **This trend indicates a clear change: today it is much more likely that employees use labor courts if their employers pay them under the table. The government is committed to strength this labor protection tool.**

To avoid labor lawsuits: register all off-payroll payments carried out in your company, regardless of their nature.

[Propagation Effect] The DGII is fully authorized to use information from labor lawsuits to initiate a **TAX AUDIT** of your company, as off-the-books payments constitute a violation of your role as a Withholding Agent. This is considered tax fraud, framed within the Tax Code and Law 155-17 against money laundering and terrorism financing.

We remind you that the tax payment must be made before the XXX day of the current year. On the DGII website (*dgii.gov.do*), you can find all the necessary information to complete the tax payment process.

Treatment 2: Informality Lawsuits
DID YOU KNOW THAT YOUR EMPLOYEES CAN REPORT YOU IN LABOR COURTS?

Having unregistered employees in your company constitutes a violation of Articles 62 and 202 of Law 87-01 on Social Security, and Articles 253 and 254 of the Tax Code. These laws protect workers in legal proceedings, implying severe penalties and significant monetary sums for the employer.

Labor justice has reported an increase in labor cases by 56.2% between 2022 and 2023, showing that more workers are aware of their rights and willing to pursue a lawsuit. **This trend indicates a clear change: today it is much more likely that employees use labor courts if they are hired informally. The government is committed to strength this labor protection tool.**

To avoid labor lawsuits: formalize all employees who are not properly registered on the payroll.

[Propagation Effect] The DGII is fully authorized to use information from labor lawsuits to initiate a **TAX AUDIT** of your company, as failing to register employees constitutes a violation of its role as a Withholding Agent. This is considered tax fraud, framed within the Tax Code and Law 155-17 against money laundering and terrorism financing.

We remind you that the tax payment must be made before the XXX day of the current year. On the DGII website (*dgii.gov.do*), you can find all the necessary information to complete the tax payment process.

Treatment 3: Profit Sharing Lawsuits
DID YOU KNOW THAT YOUR EMPLOYEES CAN REPORT YOU IN LABOR COURTS?

Employers are obligated to distribute 10% of the company's net income among all employees with more than three years of continuous service *(Article 223 of the Labor Code).*

Underreporting firms' profits undermines employees' right to receive the corresponding bonus. To this end, **Article 225 of the Labor Code allows employees to REPORT employers to the Ministry of Labor in cases of suspected income underreporting.**

Labor justice has reported an increase in labor cases by 56.2% between 2022 and 2023, showing that more workers are aware of their rights and willing to pursue a lawsuit. **This trend indicates a clear change: today, it is much more likely that employees use labor courts if they are aware of their employers underreporting profits, affecting their bonus. The government is committed to strength this labor protection tool.**

To avoid labor lawsuits: report firms' profits accurately and fulfill the obligation to share 10% with the employees.

The same Article 225 establishes that the Ministry of Labor can request **the DGII to conduct a TAX AUDIT to verify the complaint and determine the corresponding penalties**. These penalties are not only for the unpaid bonus to employees; underreporting income also constitutes a violation of the Tax Code and Law 155-17 against money laundering and terrorism financing.

We remind you that the tax payment must be made before the XXX day of the current year. On the DGII website (*dgii.gov.do*), you can find all the necessary information to complete the tax payment process.

D Tax and Labor Code Laws

D.1 Tax Code Laws

D.1.1 Income Tax

The Dominican Republic's Income Tax is divided into two levels. First, the Individual Income Tax (ISRPF) is an income tax charged to any individual, national or foreign resident, who generates a Dominican source of income or financial benefits from foreign income of residents in the country. These benefits may be non-monetary. The ISRPF depends mostly on the collection made to employees through the *pay as you earn* (PAYE) method, which is based on a system of withholding and payments on account by the employer that frees them to make the annual tax return.

Table 6: Marginal income tax rate for individuals

Segment	% MTR
0 - 416,220	0%
416,221 - 624,329	15%
624,330 - 867,123	20%
$>$ 867,124	25%

In December 2023, 73.5% of all workers who filed declarations to the DGII were exempted from paying Income Tax. Then, 12.7% were placed in the first tax segment, 5.9% in the second tax segment, and 7.9% in the third. In addition, the dual taxation regime establishes that financial income is taxed at a fixed rate according to its type. Income derived from dividends and interest is taxed at a rate of 10%, while royalties, capital gains, and other financial income are taxed at a rate of 27%.

Second, the Corporate Income Tax (ISRPJ) establishes a tax rate for the income of companies or legal entities of 27%, which is applied to the net taxable income after making the allowed deductions from the gross income. The deductions to determine the taxable income include current expenses, as well as the payment of other taxes, fees, and insurance premiums, interest, depreciation deductions, donations, research expenses, among others.

Specifically, companies pay the ISRPJ on an annual basis, where the fiscal year can coincide with the calendar year or end on the last day of the months of March, June, or September. However, they are subject to a regime of monthly advance payments which are then settled at the end of the fiscal year. Companies with an effective tax rate less than or equal to 1.5% must pay their advances based on twelve equal monthly installments, resulting from applying 1.5% to the gross income declared in the previous fiscal year. If the company has an effective tax rate greater than 1.5%, it must pay monthly as an advance one-twelfth of the tax settled in its previous declaration.

The Simplified Taxation Regime (RST) based on purchases is also considered as part of the

reference tax system for legal entities in the wholesale and retail supply sector and small industries, whose purchases are up to $RD\$42,220,000$ annually, aiming to jointly collect the Income and Consumption Taxes (ISR and ITBIS), whether it is a legal entity or an individual. The same treatment applies to individuals or single-owner businesses without organized accounting that are covered by the RST based on income, which should not exceed $RD\$9,182,850$ annually.

It was estimated by the DGII that in 2024, almost 115 million dollars were lost from exemptions in the payment of Personal Income Tax, and another 830 million dollars were not collected due to exemptions in the payment of Corporate Income Tax. This corresponds to about 0.75% of the year's expected GDP. Exemptions from paying the Income Tax are listed below:

- Personal Income Tax (ISRPF):
  - "Christmas Salary" is exempted from paying ISRPF. It is a thirteenth salary paid before December 20th and is equal to a twelfth part of the annual salary.
  - Residents who invest and promote touristic or R&D activities inside the country for 15 years are exempted from paying the ISRPF.
  - Compensations for work accidents, pre-notice compensations and severance payments, travel allowances and transfer allowances do not pay ISRPF.
  - Dividends paid in cash, coming from a capital company to its shareholders, provided that ten percent of the taxable income is withheld and paid to the Tax Administration, as a single and definitive payment.
  - A tax credit is granted for three years up to 40% of the investment cost in equipment, as a one-time credit against the income tax, to the owners or tenants of family homes, commercial, or industrial buildings that switch to or expand with renewable energy systems for their private energy self-consumption, and whose projects have been approved by the competent authorities.
  - Deduction from income tax of sums or goods donated during the tax declaration period.
- Corporate Income Tax (ISRPJ)
  - Full exemption from payment of ISRPJ tax for stock companies.
  - Profits and/or reinvestments declared as net taxable income in free zones will be exempt from income tax if the annual deduction does not exceed 50% of the annual income.
  - Companies established in the border provinces will be exempt from paying income tax.
  - Companies in the sectors belonging to the textile chain are exempt from income tax: clothing and accessories, furs, footwear, and leather goods.
  - Cinema productions and movie theaters are also exempted from paying the ISRPJ.

- State income, income from chambers of commerce and production, income from religious or sporting institutions, and civil charities are exempt from income tax.
- Exemption from the obligation to withhold and remit to the Tax Administration payments for foreign services of technological information required by the projects exclusively during the construction and operation phases.

D.1.2 ITBIS (Value Added Tax)

The Tax on the Transfer of Industrialized Goods and Services (ITBIS) applies to the transfer and import of goods and to the provision of services. Taxpayers charge ITBIS on sales, credit input ITBIS on purchases as allowed, and remit the net amount through periodic returns. Selected items are exempt or taxed at reduced rates under specific schedules. Large buyers may have withholding obligations on ITBIS paid to certain suppliers. Electronic tax receipts (see below) record the transaction trail that DGII uses for cross checks.

D.1.3 Selective Consumption Tax (ISC)

A selective consumption tax applies to specific goods and services, including alcohol, tobacco, fuels, some telecommunications and luxury items. The base and rates are defined in special schedules. The ISC is separate from ITBIS and is usually not creditable against it.

D.1.4 Asset Tax (ISA)

The asset tax functions as an alternative minimum corporate levy. Taxpayers compute both the corporate income tax and the ISA. If the income tax liability is lower than the ISA, the taxpayer pays the ISA; otherwise the ISA can be credited against the income tax. Exclusions exist for specific assets and sectors according to the code and subsequent amendments; however, in the majority of cases, firms pay the maximum amount, which is either 1% of their assets or 27% of their taxable profits.

D.1.5 Profit Sharing

It is mandatory for every company to annually grant its staff a share in the net profits or benefits obtained during the last fiscal year if any, equivalent to 10% of these benefits. However, this share cannot exceed the equivalent of 45 days of salary for those workers who have served for less than three years and 60 days of salary for those employees with more than three years. The payment to employees for this concept must be made within a period of 90 to 120 days after the end of the company's fiscal year.

Exempt from paying this share are:

- Agricultural, industrial, forestry, and mining companies during their first three years of operation.
- Agricultural companies whose capital does not exceed *RD*$1,000,000.
- Companies in free trade zones.

From a fiscal perspective, this payment will not be considered a deductible expense if it is made after the deadline for filing the tax return; in any case, the deduction may be made in the fiscal year in which such participation is effectively paid. When there are discrepancies between the company and the workers regarding the amount of such participation, the latter may request the Ministry of Labor to have the DGII conduct the necessary verifications. The calculation must be made on the net profits before determining the net taxable income and the bonuses corresponding to directors and managers. Profit sharing is not part of the base for severance, notice, or economic assistance calculations, but it is subject to Income Tax if the exemption is exceeded. For social security, profit sharing is not contributable to old age, disability and survivorship insurance, family health insurance, or occupational risk insurance.

D.1.6 Employee Wage Withholdings

Employees are withheld a fraction of their wages due to the following taxes and contributions:

- Personal Income Tax, if their wage exceeds the exemption threshold.
- Social Security Contributions.
- INFOTEP contribution for vocational training finance.
- A tax on supplementary compensation (IRC) at the standard rate, applied to non-cash or complementary benefits according to the code.

The INFOTEP contribution is paid by employer and employee. The employer contributes 1% of the monthly payroll; the employee contributes 0.5% of salary. Social security contributions are computed on the contributable base as in Table 7.

Table 7: Social security contribution rates (excluding INFOTEP). Note: Occupational risk insurance may increase up to 1.60% for riskier jobs.

Program	% of Gross Wage	Employer	Employee
Old-age, disability, and survivorship	9.97%	7.10%	2.87%
Family health insurance	10.13%	7.09%	3.04%
Occupational risk insurance	1.20%	1.20%	0.00%
Total	21.30%	15.39%	5.91%

D.2 Penalties and Enforcement

D.2.1 Tax Fraud (Law 11–92, Arts. 236–239)

The Code defines tax fraud as simulation, concealment, or any other deceptive conduct intended to mislead the administration in determining taxes with the purpose of facilitating evasion. Enumerated cases include, among others, materially false or omitted declarations and the failure to pay within the statutory period the amounts withheld or collected from third parties. Sanctions include a fine of two to ten times the evaded tax; when the evaded amount cannot be determined, the fine ranges from five to thirty monthly minimum wages. For withholding or collecting agents who hold overdue amounts, the pecuniary penalty is two to ten times the withheld or collected sum that was not remitted, without prejudice to accessory sanctions (forfeiture, temporary closure, cancellation of licenses) and, in certain aggravated cases, criminal liability.

D.2.2 Noncompliance with Formal Duties (Law 11–92, Arts. 253–257)

Breaches of formal obligations—such as failure to register, to issue and keep proper invoices or vouchers, to file required returns, or to submit requested information—constitute infringements independent of the underlying tax liability. These infringements are sanctioned with fines from five to thirty monthly minimum wages, alongside possible accessory sanctions including suspension of authorizations, temporary closure of premises, or restrictions on the issuance of fiscal documents, scaled by severity and recidivism.

D.2.3 Surcharges and Interest (Law 11–92, Art. 252)

Late payment of tax debts accrues a fixed surcharge of 10% for the first month or fraction thereof, additional monthly surcharges for each subsequent month or fraction, and indemnity interest calculated on a monthly basis. These accessories apply to principal tax liabilities, to withholdings and collections, and to turnover-related taxes, and they may cumulate with sanctions for material or formal infringements when applicable.

D.2.4 Administrative Collection and Sanctions

Once an assessment becomes due and payable, the administration may pursue coactive collection through measures that include seizure and execution against assets and bank accounts. Monetary fines apply to failures to register, file, report, or remit, including failures to withhold or to pay over withholdings. In cases of repeated noncompliance, the administration may suspend invoicing authorization or the issuance of fiscal receipt numbers. Coactive collection follows the sequence and safeguards established in the Code and its implementing regulations.

D.2.5 Criminal Provisions and Anti Money Laundering Interface

Aggravated tax fraud can be prosecuted under the Penal Code. In addition, Law 155-17 on Anti Money Laundering and Terrorist Financing lists tax crimes among predicate offenses, which enables criminal investigation, precautionary measures on assets, and coordination across agencies in serious evasion cases.

D.3 Labor and Social Security Laws

D.3.1 Social Security Law (Law 87-01)

Employers must register workers before the start of employment, declare the true contributable base, and remit monthly contributions for pensions, family health insurance, and occupational risk insurance. The social security treasury (TSS) and the National Council for Social Security (CNSS) regulate timing, ceilings, and enforcement. Non enrollment, underreporting, and nonpayment can result in fines, surcharges, coactive collection, and, where applicable, embargoes on accounts.

D.3.2 Labor Code Sanctions (Law 16-92, Articles 720–724)

The Labor Code classifies as a serious offense the omission of social security contributions and related payroll obligations. Articles 720 and 721 provide for fines measured in legal minimum wages for each affected worker and allow application of Penal Code sanctions in aggravated cases. Articles 722 to 724 address personal responsibility of managers and statutes of limitation. Labor courts can order retroactive registration, back pay up to the legal floor, recalculation of bonuses and severance on the actual wage, and payment of missed contributions with surcharges and indexation.

D.3.3 Resolution 471-02 Against Sub-minimum Reporting

In 2019, the government operationalized a procedure under Resolution 471-02 that restricts reporting wages below the applicable minimum to pre-authorized cases. Employers who cannot justify sub-minimum filings face adjustments to the floor for contribution purposes and are required to regularize differences with surcharges where due. Communication with employers occurs through the TSS platform, and cross-checks with DGII returns are used for risk selection.

E Minimum Wage Firm Categorization

The CNS sets annual minimum-wage thresholds for private-sector firms. Although certain exemptions apply—principally for firms in Free Trade Zones and in the hotel, bar, and restaurant sector—the majority of private firms fall under the non-sectorized private-sector regime. In this regime, the minimum wage a firm must observe is determined by the previous year's reported number of employees and gross income, but before 2021, the firm's assets were used for the calculation.

E.1 Original Categorization (2004-2021):

Resolution CNS05-2004 issued by the CNS established the following criterion for setting the minimum wage rate through the definition of companies in the non-sectorized private sector[9].

Large companies: Entities that have assets of more than $RD\$4,000,000.01$.

Medium-sized companies: Entities that have assets between $RD\$2,000,001.00$ and $RD\$2,000,000.00$.

Small and Micro-enterprises: Entities that have assets of up to $RD\$2,000,000.00$.

E.2 Law Reform (2021-2024):

In July 2021, Resolution CNS01-2021 was issued, establishing the National Minimum Wage for workers in the Non-Sectorized Private Sector and establishing the following classification parameters:

Large companies: Entities that have 151 workers or more, or annual gross sales of more than $RD\$202,000,000.00$.

Medium-sized companies: Entities that have 51 to 150 workers or annual gross sales between $RD\$54,000,001.00$ and $RD\$202,000,000.00$.

Small companies: Entities that have between 11 and 50 workers and annual gross sales between $RD\$8,000,001.00$ and $RD\$54,000,000.00$.

Micro-enterprises: Entities that have up to 10 workers or annual gross sales of up to $RD\$8,000,000.00$.

The law clarified that, if a firm met two criteria from different scales, i.e., the number of workers from one classification and gross sales from another classification, the higher scale will be considered predominant for the purpose of determining its classification and the consequent applicable minimum wage. However, to be defined as medium-sized, firms must comply with both criteria.

In 2023, a new reform was approved, where firms only had to comply with one of the criteria

[9] It is important to note that no changes nor updates were made to this law until 2021.

to be classified as medium-sized or large-sized firms.

E.3 Minimum Wages by Category

Firm Category	2011	2012	2013	2014	2015	2016	2017	2018
Large	RD$9,905.00	RD$9,905.00	RD$11,292.00	RD$11,292.00	RD$12,873.00	RD$12,873.00	RD$15,447.60	RD$15,447.60
Medium	RD$6,810.00	RD$6,810.00	RD$7,763.00	RD$7,763.00	RD$8,850.00	RD$8,850.00	RD$10,662.00	RD$10,662.00
Small	RD$6,035.00	RD$6,035.00	RD$6,880.00	RD$6,880.00	RD$7,843.00	RD$7,843.00	RD$9,411.60	RD$9,411.60
Micro	RD$6,035.00	RD$6,035.00	RD$6,880.00	RD$6,880.00	RD$7,843.00	RD$7,843.00	RD$9,411.60	RD$9,411.60
Firm Category	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026†**
Large	RD$17,610.00	RD$17,610.00	RD$20,000.00	RD$21,000.00	RD$24,150.00	RD$24,990.00	RD$27,988.80	RD$29,988.00
Medium	RD$12,107.00	RD$12,107.00	RD$18,500.00	RD$19,250.00	RD$22,138.00	RD$22,908.00	RD$25,656.96	RD$27,489.60
Small	RD$10,730.00	RD$10,730.00	RD$12,400.00	RD$12,900.00	RD$14,835.00	RD$15,351.00	RD$17,193.12	RD$18,421.20
Micro	RD$10,730.00	RD$10,730.00	RD$11,500.00	RD$11,900.00	RD$13,685.00	RD$14,161.00	RD$15,860.32	RD$16,993.20

Table 8: Minimum wage rates by firm category for Non-Sectorized Private Firms, 2011–2026. In 2021, the firm-size classification changed with the creation of the Micro-enterprises category; before 2021, Small and Micro shared the same minimum wage. † 2026 values are expected.

F Descriptive Statistics

Table 9: Distribution of Firms by Industry:

	With employees		Without employees	
Industry	Freq.	Percent (%)	Freq.	Percent (%)
Public Administration	8	0.02	3	0.02
Insurance and Pensions	76	0.15	10	0.06
Finance	2,568	5.10	1,884	11.00
Basic Goods	1,776	3.52	425	2.48
Manufactured Goods	2,852	5.66	676	3.95
Services	13,482	26.75	5,070	29.61
Construction, Transport and Storage	7,177	14.24	2,950	17.23
Commerce, Hotels, Bars and Restaurants	20,864	41.40	5,314	31.03
Others	1,593	3.16	791	4.62
Total	50,396	100.00	17,123	100.00

Table 10: Distribution of Firms by Region:

	With employees		Without employees	
Region	Freq.	Percent (%)	Freq.	Percent (%)
Cibao Este	657	1.30	81	0.47
El Valle	281	0.56	86	0.50
Enriquillo	279	0.55	101	0.59
Cibao Norte	8,198	16.27	1,506	8.80
Cibao Sur	2,130	4.23	375	2.19
Valdesia	1,871	3.71	479	2.79
Cibao Noroeste	1,450	2.88	289	1.69
Distrito Nacional	31,296	62.10	12,631	73.77
Higuamo	986	1.96	250	1.46
Yuma	3,248	6.44	1,327	7.75
Total	50,396	100.00	17,123	100.00

Figure 15: Dominican Republic Regions

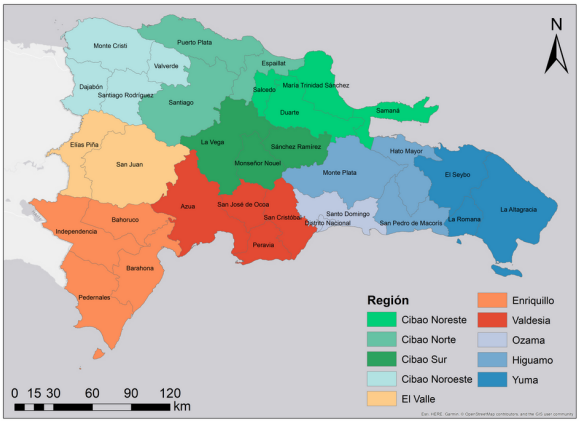


Table 11: Number of Firms with Positive and Negative Profits. *Note: In the "without employees" group, 38 firms reporting zero profits are counted as positive.*

	With employees		Without employees	
Profits	Freq.	Percent (%)	Freq.	Percent (%)
Negative	10,388	20.61	2,669	15.59
Positive	40,008	79.39	14,454	84.41
Total	50,396	100.00	17,123	100.00

Table 12: Number of Firms where at least 1 employee paid Income Tax between January 2024 and July 2025.

At least 1 Employee Paid Income Tax	Freq.	Percent (%)
No	31,274	62.06
Yes	19,122	37.94
Total	50,396	100.00

Table 13: Profit-Tax Exemption Status.

	With employees		Without employees	
Exemption	Freq.	Percent (%)	Freq.	Percent (%)
No Exemption	49,208	97.64	16,971	99.11
Full Exemption	328	0.65	110	0.64
Partial Exemption	860	1.71	42	0.25
Total	50,396	100.00	17,123	100.00

Table 14: Firms Paying Asset Tax Instead of Income Tax. *Note: Profit-tax-exempt firms are counted under "No" for asset tax.*

	With employees		Without employees	
Pays Asset Tax	Freq.	Percent (%)	Freq.	Percent (%)
No	38,114	75.63	12,728	74.33
Yes	12,282	24.37	4,395	25.67
Total	50,396	100.00	17,123	100.00

Table 15: Firm Size Distribution by Classification for Firms with Employees. More Info about the Classification in Appendix E.

	Number of Workers		Gross Income		CNS Classification	
Size	Freq.	Percent (%)	Freq.	Percent (%)	Freq.	Percent (%)
Micro Firms	35,321	70.09	23,076	45.79	23,696	47.02
Small Firms	11,835	23.48	17,264	34.26	23,761	47.15
Medium Firms	2,097	4.16	6,281	12.46	748	1.48
Large Firms	1,143	2.27	3,775	7.49	2,191	4.35
Total	50,396	100.00	50,396	100.00	50,396	100.00

Figure 16: Number of Workers per Firm conditional to having employees in that firm (Winsorized at 50 Workers).

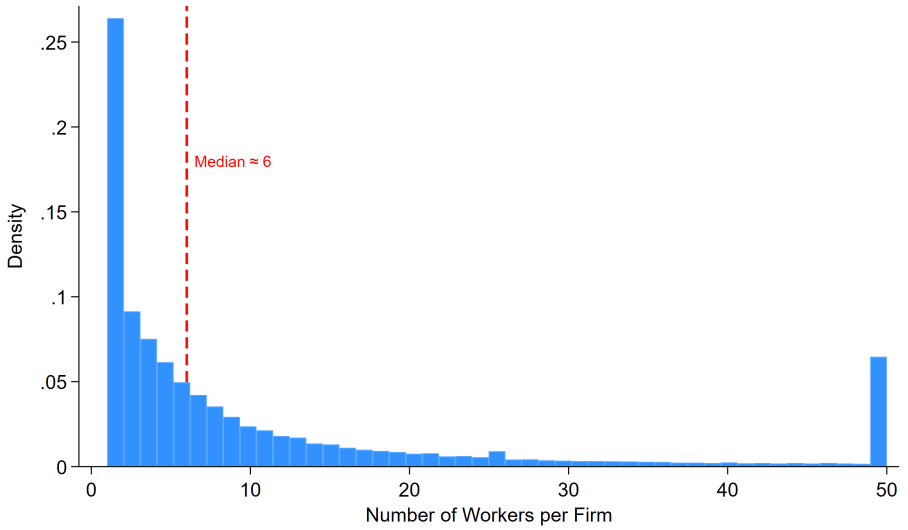


Figure 17: Histogram of firms' net profits conditional ontional on Not Having Employees Having Employees (RD$ million), trimmed at 2% and 98% to reduce tail influence.

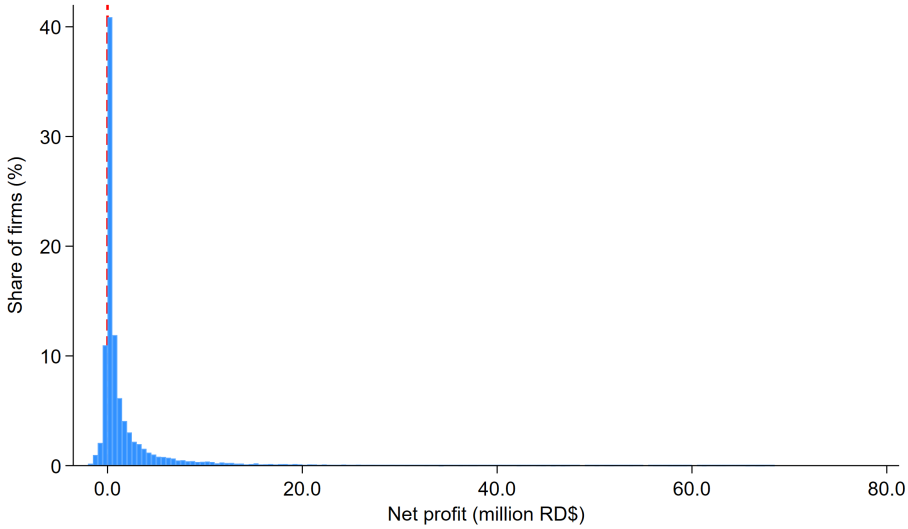


Figure 18: Histogram of firms' net profits condi (RD$ million), trimmed at 5% and 95% to reduce tail influence.

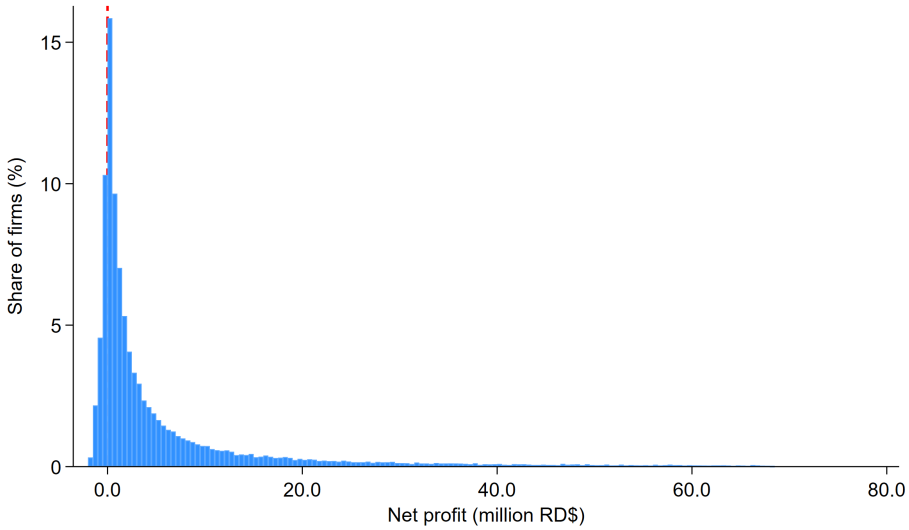


Figure 19: Wage Histogram for the Non-Sectorized Private Sector.

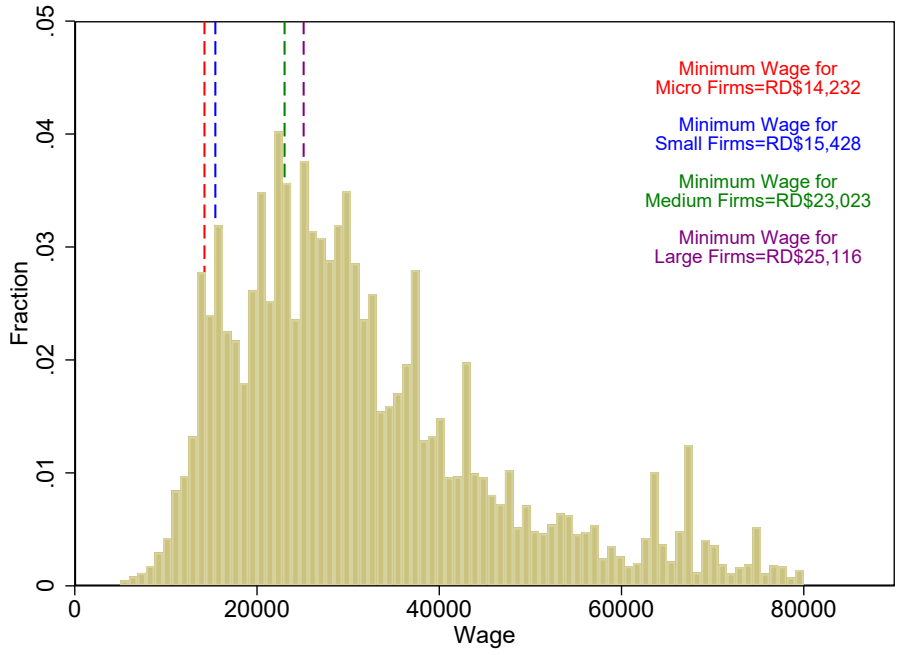
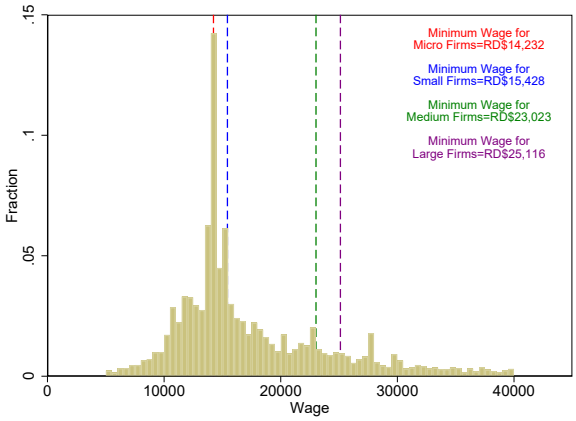
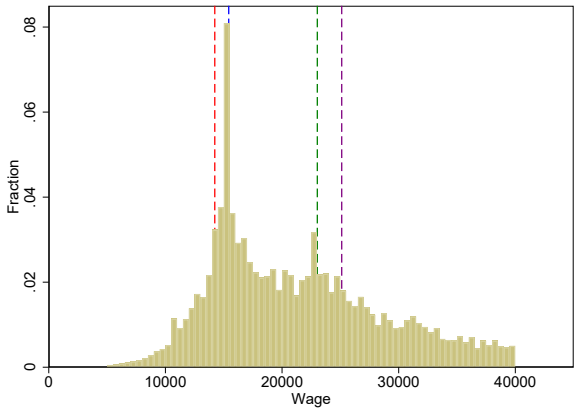


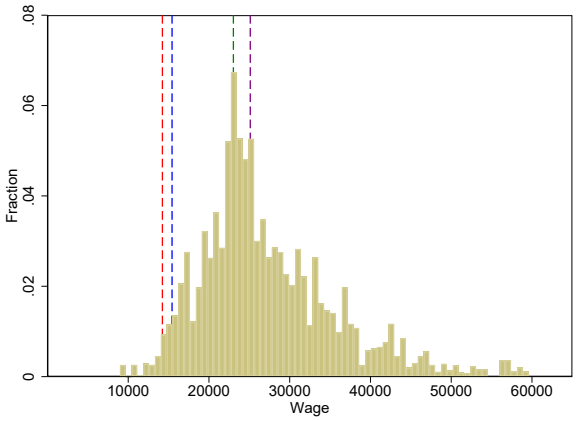
Figure 20: Wage histograms by firm size for Non-Sectorized Private Firms (October 2024).



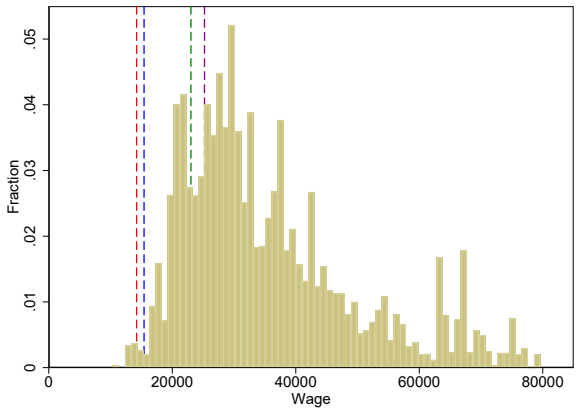
(a) Micro firms



(b) Small firms

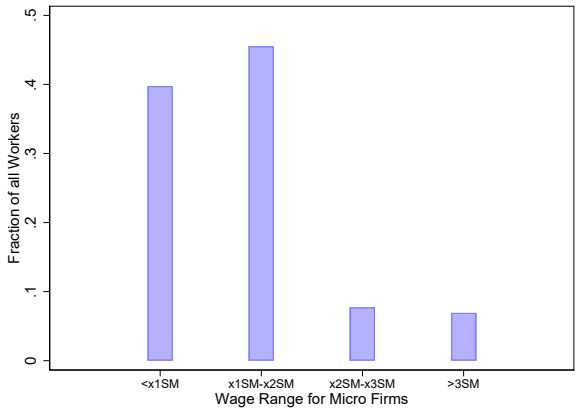


(c) Medium firms

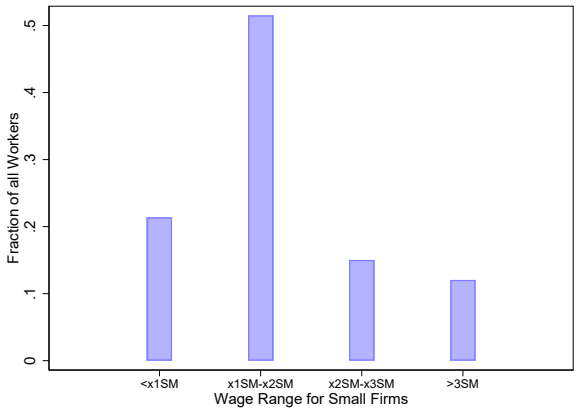


(d) Large firms

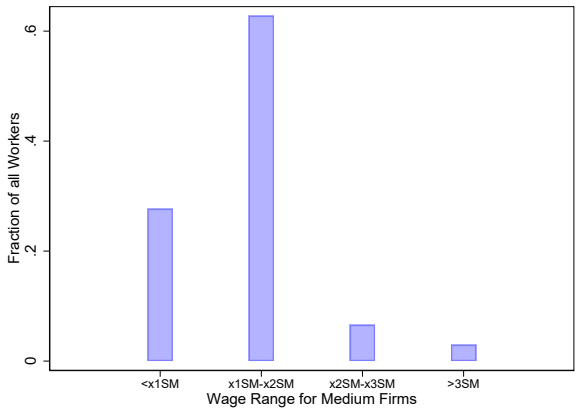
Figure 21: Wage ranges by firm size for Non-Sectorized Private Firms (October 2024).



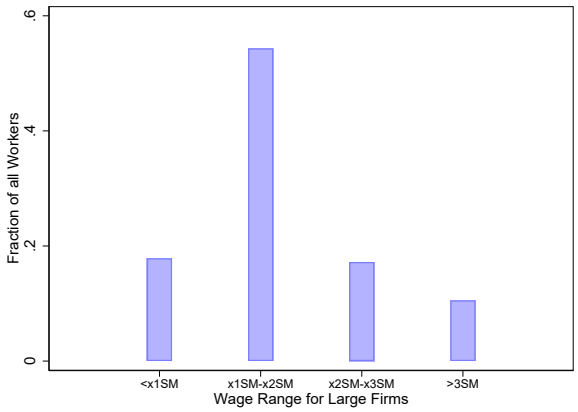
(a) Micro firms



(b) Small firms



(c) Medium firms



(d) Large firms

Figure 22: Wage Range for All Firms

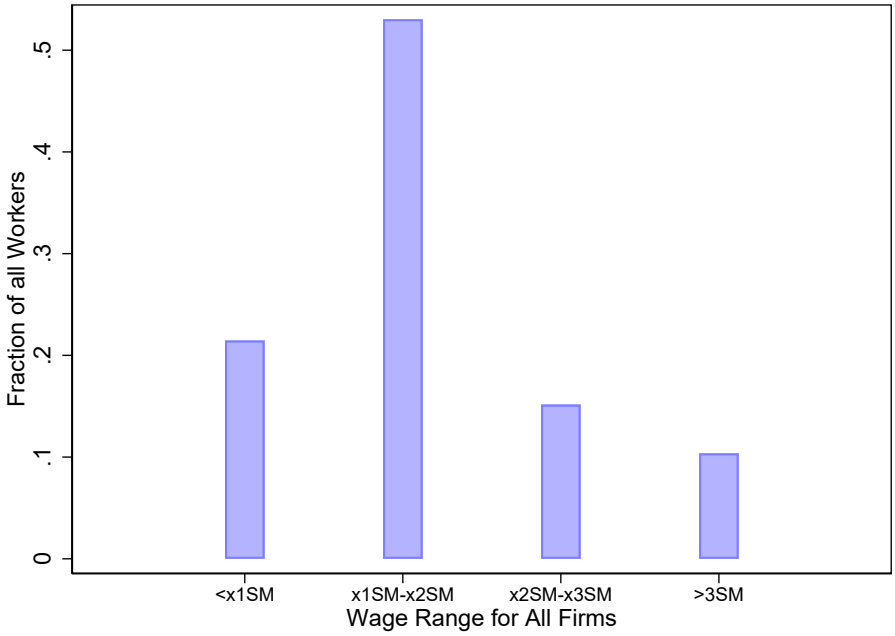


Table 16: Employees below the minimum wage in the Non-Sectorized Private Sector (By Workers and Firms).

	Freq.	Percent (%)
Workers		
Above	662,007	78.55
Below	180,753	21.45
Total	**842,760**	**100.00**
Firms		
Above	24,463	63.08
Below	14,315	36.92
Total	**38,778**	**100.00**

Table 17: Employees at or within RD$200 of the minimum wage in the Non-Sectorized Private Sector (By Workers and Firms).

	Freq.	Percent (%)
Workers		
0	832,573	98.79
1	10,187	1.21
Total	**842,760**	**100.00**
Firms		
0	37,910	97.76
1	868	2.24
Total	**38,778**	**100.00**

Table 18: Number of Employees that paid Income Tax in October 2024.

Employee Paid Income Tax	Freq.	Percent (%)
No	985,140	77.39
Yes	287,870	22.61
Total	1,273,010	100.00

F.1 Below Median Firms (≤ 6 Workers)

Table 19: Distribution of Firms with $n \leq 6$ by Industry

Industry	Freq.	Percent (%)
Public Administration	5	0.02
Insurance and Pensions	16	0.06
Finance	1,752	6.16
Basic Goods	791	2.78
Manufactured Goods	1,128	3.96
Services	8,154	28.65
Construction, Transport and Storage	4,323	15.19
Commerce, Hotels, Bars and Restaurants	11,330	39.80
Others	965	3.39
Total	28,464	100.00

Table 20: Distribution of Firms with $n \leq 6$ by Region

Region	Freq.	Percent (%)
Cibao Este	268	0.94
El Valle	145	0.51
Enriquillo	156	0.55
Cibao Norte	3,966	13.93
Cibao Sur	965	3.39
Valdesia	1,015	3.57
Cibao Noroeste	704	2.47
Distrito Nacional	18,982	66.69
Higuamo	494	1.74
Yuma	1,769	6.21
Total	28,464	100.00

Table 21: Number of Firms with Positive and Negative Profits ($n \leq 6$)

Profits	Freq.	Percent (%)
Negative	7,037	24.72
Positive	21,427	75.28
Total	28,464	100.00

Table 22: Firms with at least one employee paying Income Tax (Jan 2024–Jul 2025), $n \leq 6$

At least 1 Employee Paid Income Tax	Freq.	Percent (%)
No	22,338	78.48
Yes	6,126	21.52
Total	28,464	100.00

Table 23: Firms Exempted from Paying Income (Profit) Taxes, $n \leq 6$

Exemption	Freq.	Percent (%)
No Exemption	28,286	99.37
Total Exemption	79	0.28
Partial Exemption	99	0.35
Total	28,464	100.00

Table 24: Firms that Pay Asset Taxes Instead of Income Taxes, $n \leq 6$

Pays Asset Taxes	Freq.	Percent (%)
No	20,042	70.41
Yes	8,422	29.59
Total	28,464	100.00

Table 25: Firm Size Distribution by Classification ($n \leq 6$). See Appendix E for definitions.

	Number of Workers		Gross Income		CNS Classification	
Size	Freq.	Percent (%)	Freq.	Percent (%)	Freq.	Percent (%)
Micro Firms	28,464	100.00	18,919	66.47	20,198	70.96
Small Firms	0	0.00	8,266	29.04	8,266	29.04
Medium Firms	0	0.00	1,100	3.86	0	0.00
Large Firms	0	0.00	179	0.63	0	0.00
Total	28,464	100.00	28,464	100.00	28,464	100.00