When Workers Don't Know Their Contract: Evidence from French Working Time Regulations

Thomas Breda*, Vladimir Pecheu†, Baptiste Roux‡

Abstract

This paper examines workers' awareness of their contractual working time arrangements and its consequences for labor market outcomes. Combining administrative and survey data at the individual level, we construct a new and unique data set which shows that 20% of the workforce mistakenly think that they work under day contracts, with no monitoring of hours, while they are actually paid through a standard hours contract. This reveals that many workers with various profiles do not know the legal environment governing something as fundamental as their working time. We show that these "ignorant" workers differ from classic workers in terms of working conditions: they perform more unpaid overtime hours but have a higher wage rate per contractual hour, so that their total compensation is similar. Complementary results on job satisfaction also suggest that firms do not take advantage of their workers' ignorance of labor contracts to extract rents. Rather, "ignorant" workers appear to benefit from an intermediate status between standard hours contracts and day contracts with more flexibility. Leveraging the panel dimension of our data, we further show that these workers are more likely to sign actual day contracts over time, but with smaller effects on their earnings' trajectories.

Keywords: Compliance, Working Time Regulations, Working Conditions

JEL Classification: J32, J33, J41, M50.

*Paris School of Economics, CNRS, and Institut des Politiques Publiques. Email: thomas.breda@ens.fr.

†Paris School of Economics, and Institut des Politiques Publiques. Email: vladimir.pecheu@psemail.eu.

‡Centre Maurice Halbwachs (CNRS-EHESS-ENS-PSL), and Paris School of Economics. Email: baptiste.roux@psemail.eu

1 Introduction

Regulations are a ubiquitous feature of modern societies, implemented in various domains, from land use to food quality. The ambition of regulators is to correct for market failures, i.e. to intervene and adopt rules when unregulated market allocations are inefficient. In the case of labor regulations, their role is to frame the relationship between workers and employers, typically to protect workers from potential risks of abuse. Common rules that aim to limit those risks include minimum wages, right to strike and maximum working time duration.

To achieve their goal, labor laws need to be respected. While compliance with such laws is the focus of much research in developing countries (see Bhorat and Ravi Stanwix (2019) for a survey), it is nowadays often taken for granted in developed countries (see e.g. Gourio and Roys (2014); Garicano et al. (2016) for the effect of size-dependent firm regulations). However, there remains example of widespread non-compliance (see Askenazy et al. (2022) on the same example, or Boeri et al. (2024)). Achieving compliance requires either a strong supervisory or control body (see Roncioni (2019) on the role of enforcement), or workers who are informed about their rights and capable of enforcing them through collective bargaining or legal proceedings.

This paper focuses on this latter aspect and examines to what extent workers are aware of a fundamental aspect of their working contract: the legal regime covering their working time. While most existing evidence on workers' awareness of their rights relies directly on survey responses (e.g., CSA (2016); Humanis (2024); Van Rooij (2020)), our study is among the first ones to combine self-reported information from a detailed survey conducted by the French Ministry of Labor, with administrative data on workers' contractual arrangements.

This unique data allows us to identify misreporters unambiguously and to carry the analysis further, that is to study the consequences of workers' ignorance of their contractual arrangement on their actual working hours, hourly wages, and earnings. Relating workers' awareness of their contractual arrangement to their actual working conditions is the main contribution of this paper. To the best of our knowledge, there is no prior work focusing precisely on this question.

What are the theoretical risks workers face when they are unaware of their contractual working time arrangements? A first risk is legal: from a strictly legal standpoint, if actual hours worked exceed those stipulated in the contract, workers are performing unpaid overtime and the employer

is in violation of labor law. When workers are unaware of such discrepancies, these violations may persist over time without being challenged. Beyond this legal dimension, a broader concern stems from informational asymmetries between employers and employees. Firms typically have dedicated HR departments with the expertise and resources to design and manage labor contracts, whereas workers often lack the time or knowledge to fully understand the regulations governing their employment. Employers may exploit this informational advantage to circumvent legal obligations and extract economic rents. Such mechanisms are likely to be more effective in imperfect labor markets, where workers have limited bargaining power and face obstacles in seeking alternative employment or renegotiating their compensation.

Under a "regulationist view", strict adherence to labor regulations is essential to protect workers against the consequences of asymmetric information with employers, and legal authorities should adopt strict policies of practice control within workplaces. However, if regulation failures are compensated by market mechanisms, workers and firms may deviate from regulations when market mechanisms allow them to reach better outcomes than under regulation. According to this "market view", rigid adherence to regulations (and the regulations themselves) may not always be necessary. Our work sheds light on these perspectives.

France provides an ideal setting for studying these mechanisms, as it represents a prominent example of a strongly regulationist system characterized by an extensive and complex Labor Code. The complexity of such labor regulations creates conditions where employers are likely to have superior understanding compared to workers, thereby amplifying the informational asymmetry between the two parties.

More specifically, we focus on a particular French flexible work arrangement known as *forfait jours* (or day contract hereafter), which officially covers about 10% of all salaried workers in 2017, almost exclusively in white-collar sectors. For workers subject to these contracts, working time is measured in terms of annual working days rather than in weekly hours, which implies almost no regulation on hours worked. Importantly, the employer is not required to monitor nor control the hours worked of these workers, while this is a central legal requirement for workers on hours contracts, who must be paid overtime hours if their working time exceeds their contractual working load. We uncover a striking empirical finding: approximately 20% of the salaried workforce believe that they are working under this flexible arrangement when, in fact, they are not, according

to the administrative source stemming from labor contracts. We provide additional evidence that clearly supports the fact that this mismatch across data sources represents a limited knowledge by workers of their working time regime rather than measurement error.

This large amount of misreporting — a third of the workforce thinks it holds a day contract while only 10% actually does — appears widespread across workers' and firms' characteristics and motivates analyzing the implications of such ignorance for workers. We proceed in two steps for our main argument. First, we inquire if workers' ignorance is indeed related to more non-compliance with their working contract. To do so, we combine official information on their total paid working hours with survey information on their total weekly hours (paid or unpaid). Results show that workers who report holding a day contract while they are paid by the hours also indicate working longer hours and more unpaid overtime hours than similar workers who are aware of their contract. This suggests imperfect compliance with labor regulations from employers, even though we cannot fully reject that workers who are unaware of their contractual arrangement also misperceive their total weekly hours as compared to more aware — and perhaps more attentive — workers.

Second, we study more broadly if employers take advantage of workers' ignorance of their working contract. The underlying motivation is obvious: if unaware workers are treated less favorably, a key policy objective should be to increase knowledge of regulations, either by simplifying them, or by ensuring that labor unions are strong enough to impose compliance. However, our results point to a different conclusion: misreporters are compensated for their longer hours through higher earnings and report comparable levels of job satisfaction, indicating limited welfare effects associated with their poor information. These results are driven by white-collar workers, whose working conditions thus differ from similar workers correctly reporting their hourly work arrangements.

While workers who misreport their contract type may not appear to suffer immediate consequences from their lack of knowledge, we leverage the panel dimension of our data to examine whether differences in working conditions emerge over time. We find that misreporters are more likely to transition to an official day contract than workers who correctly report hours contracts. However, when they do, they do not experience the wage increase typically observed among comparable non-misreporters making the same transition, whether the change occurs within the same

firm or across firms.

Together, the results suggest that employers can circumvent working time regulations and manage their workers more flexibly by offering them better working conditions. However, they reject the hypothesis that employers take advantage of workers' ignorance to extract rents at their expense. Our set of results might be best understood as reflecting that market mechanisms are able to compensate for regulation failures. Workers paid by the hour who misreport their contract type appear to occupy an intermediate position between accurately reporting hourly workers and those on day contracts. They are more likely to transition to day contracts and already enjoy better working conditions, before switching. As a result, they receive a smaller wage premium upon transition, consistent with having less to gain. For stayers, this is likely due to their relatively favorable starting position, but for movers, the difference in wage gains raises questions about their long-term career trajectories compared to their better-informed counterparts.

This work relates to three main strands of literature. First, a substantial literature has studied the impacts of non-compliance to regulations on economic outcomes. Economic research on compliance with labor laws has predominantly focused on developing countries, where institutional weaknesses often lead to widespread non-compliance (see Bhorat and Ravi Stanwix (2019) for a comprehensive survey). However, examples of non-compliance also exist in developed economies, as documented by Boeri et al. (2024) on non-compete clauses and Askenazy et al. (2022) on firms' size-dependent regulations. Within this literature, there has especially been a long tradition of examining compliance with minimum wage regulations (see e.g. Rani et al. (2013) and Garnero (2018)), dating back to the seminal work of Ashenfelter and Smith (1979). Focusing on other aspects of contractual labor regulations such as working time arrangements is less common, with the notable exception of Cohen et al. (2023) which studies firms' avoidance of overtime regulations through the use of "managerial" contracts. Their work can be viewed as strongly related to ours as the *forfait jours* regulation is designed for similar types of workers and implies an exemption from overtime regulations. A key distinction of our approach from the existing economics literature is that we focus directly on workers' awareness of their contractual arrangements rather than examining compliance per se. This shift in perspective allows us to investigate the underlying mechanisms that may drive non-compliance and to assess whether informational asymmetries between employers and workers contribute to regulatory violations

and their associated economic consequences.

In doing so, we relate to a large literature in legal studies examining workers' awareness of the law and its consequences, particularly for compliance. In his review of this literature, Van Rooij (2020) assesses individuals' knowledge of legal rules governing their activities across various domains, including employment law, criminal law, and health regulations. Common findings across studies reveal major information gaps between professionals and laypersons, which the author attempts to explain (e.g., highlighting the role of social norms) and preliminarily discuss associated compliance risks. The main reference for our paper is Kim (1999), who examines workers' knowledge of their legal protection in the context of American at-will employment contracts. Her results demonstrate that a substantial share of workers have limited knowledge about their employment rights, with potential negative impacts on workers' welfare as the grounds for dismissal are misunderstood. However, these studies are based on survey evidence with small samples and are mostly interested in compliance and respect of the law, as they are not able to link non-awareness to actual economic outcomes on the labor market. In contrast, we study directly an economic mechanism related to workers' ignorance, namely that employers might take advantage of their information advantage about the rules governing labor contracts to extract rents. Our research also contributes to this literature by leveraging a unique setting that combines a large sample size with limited reporting issues, as data are collected by the Ministry of Labor statistical service.

Lastly, this paper contributes to the recent and developing literature on flexible work arrangements. *Forfait jours* agreements represent a form of flexible arrangement in which hours are not monitored and workers have autonomy in organizing their work. Previous research has shown that flexible jobs are highly valued by workers, particularly when employees can anticipate their schedules and maintain decision-making power over their time allocation (Mas and Pallais, 2017; He et al., 2021; Adams-Prassl et al., 2023). We contribute to this literature by leveraging rich administrative data combined with survey measures of job satisfaction and find positive welfare effects associated with these arrangements. At the end of the paper, we use individual fixed effects in a panel data structure to provide estimates of the earnings effects associated with these contracts, thereby capturing how much employers are willing to pay for workforce flexibility. Our results demonstrate that employers highly value workers' flexibility. In this regard, the specific institutional context of *forfait jours* agreements provides numerous insights that extend beyond

the topic of non-compliance and speak to the literature of flexible work arrangements in modern labor markets.

The rest of the paper proceeds as follows. Section 2 introduces the relevant elements of French working time regulation, particularly those related to *forfait jours* agreements. Section 3 presents the mobilized data. Section 4 characterizes the profile of misreporters and their distribution across workplaces. Section 5 studies the implications for their working conditions.

2 Working Time Regulation in France

In France, the legal duration of working time is set at 35 hours per week for full-time employees in all companies regardless of their size. This is a reference duration, a threshold from which, except for exceptions, overtime hours are calculated. It is therefore neither a minimum duration (employees can be employed part-time) nor a maximum: overtime hours can be worked within the maximum durations beyond which no work can be requested. Associated with the establishment of the 35-hour reforms in 2000 and 2002 (see Askenazy (2013) for more details), an extensive legislative framework has defined the conditions for the organization of working time in the workplace. In particular, compliance with mandatory rest periods, the employee must not exceed a maximum number of weekly working hours, and payment of overtime hours are obligations incumbent upon the employer. Consequently, the employer must adopt methods to monitor the working time of their employees in order to respect them.

A first solution for this is to establish fixed collective working hours. The starting and ending times of each work period are predetermined with no individual flexibility. The concerned employees are informed through mandatory display on the workplace and must adhere to them. Working time is thus perfectly controlled, and any work hour beyond the fixed working periods is paid as an overtime hour at an extra rate of 25% for the first eight hours and 50% thereafter. When the implementation of collective schedules is not possible, the employer can set individual fixed schedules for each employee. Working time is then monitored in the same way.

Second, when tracking fixed schedules is impossible due to flexibility reasons, the employer must record working time. This is done for each employee according to the following methods (defined in article D.3171-8 of the labor code): either daily or weekly, by recording, by any means,

the start and end times of each work period or by recording the number of hours worked. Proper monitoring of working hours can be subject to inspection by labor authorities at any time, which may result in criminal proceedings.

Finally, employees can work under a *forfait* system, i.e. they have established with their employer an agreement which allows the employer to spread out the periods for measuring working time. The Labor Code provides two types of *forfait* contracts. First, there are *forfait heures* agreements, which allow employers to facilitate the management of overtime by systematizing it. These hourly agreements do not exempt employers from their obligations to measure employees' working time according to the usual rules (daily recording or tallying and weekly summary of hours worked). Then, there are the famous *forfait jours*, central to this article. These day-based agreements allow employers not to count working time hour by hour but rather half-day by half-day. They are the only legal working time regime for which the hours worked do not have to be measured and controlled by the employer[1]. *Forfait jours* agreements are distinguished by the flexibility granted to the worker in organizing their work but are considered capable of generating abuses such as excessive weekly workload. They are therefore heavily regulated by the Labor Code, only addressed to employees with strong autonomy in organizing their schedules[2], and requiring the employee's written agreement.

In summary, employees have three main options when it comes to their working time arrangement: a) they have known fixed schedules, b) they have variable schedules, and their employer measures and controls their working hours, or c) they are subject to a *forfait jours* agreement. In the rest of the paper, contracts that are associated with a *forfait jours* agreement are often referred to as day contracts, as opposed to hours contracts for all other contracts that involve a monitoring of hours by employers.

As explained above, in cases where their job is eligible, the individual *forfait jours* agreement is subject to the employer's and employee's agreements. A crucial question in the context of our study concerns the incentives to work under a day contract from both perspectives. *Forfait jours* agreements provide clear benefits for employers. Workplace management is made easier by

[1]The employer must still be able to provide evidence of respect of mandatory rest periods to the legal authorities, which may involve some monitoring for this particular purpose.

[2]Occupations with the highest share of *forfait jours* agreements include corporate executives, engineers, publicists, journalists.

removing the need to track working hours or handle employee schedules as it cuts down on administrative work. They also help control labor costs by avoiding overtime payments, especially in periods of high activity[3]. Beyond these practical gains, employers see these contracts as able to improve workplace relationships by giving employees more autonomy and creating a more relaxed management style. Taken together, the main advantage of *forfait jours* agreements is to allow employers to work around some of the more complex parts of French employment law. This flexibility comes with risks, as many court cases have shown employees winning claims for overtime pay when the associated rules were not properly respected, but overall *forfait jours* agreements appears as highly valued by employers.

From the employee's perspective, to what extent does an employee have an interest in concluding a *forfait jours* agreement rather than working under a system governed by weekly hours? As noted in previous work from the French labor law literature (Ray, 2016), there is no clear answer to this question. Workers with day contracts can theoretically work up to 13 hours per day and have frequently been described as subject to extreme workweeks (Bouffartigue and Bouteiller, 2000), but their number of hours is possibly very heterogeneous. Even when their hours are not monitored, employees are asked to report their usual and current week hours in the French Labor Force Survey[4]. The reports show a higher concentration of employees with *forfait jours* agreements between 40 and 50 weekly hours, reflecting the fact that they tend to work more on a weekly basis. In terms of remuneration, by signing the agreement, an employee foregoes a significant salary increase associated with overtime hours. On the other hand, they are compensated through higher wages and benefit from additional rest days, also convertible into earnings. When we restrict to objective working conditions, i.e hours and earnings, the incentive to sign or not sign the agreement is unclear. This contrasts with other survey evidence, including our data, which consistently documents higher reported job satisfaction, particularly related to working-time arrangements, for workers with day contracts. It appears that the decision to sign a *forfait jours* agreement also relies on a preference for flexibility and liberation from employer control over hours, paid at the cost of potential heavy weekly workloads. Prior research on flexible work arrangements (Mas and Pallais, 2017; Adams-Prassl et al., 2023) has identified that workers tend to favor flexible arrangements conditional upon retaining sufficient autonomy over their schedule management.

[3] As an example, during the 2024 Paris Olympics, the organizing committee massively used these contracts to avoid overtime regulations, thus resulting in substantial uncompensated workload for fixed-term hired workers.

[4] The *Enquête Emploi* is administrated by the public institute for statistics, *Insee*.

Despite the widespread use of *forfait jours* agreements in France, there is remarkably little empirical research examining these contracts and their implications for workers. This paper contributes to filling this gap by providing new evidence on *forfait jours* agreements, particularly regarding their association with job satisfaction and earnings premiums.

3 Data

3.1 The DADS Dataset

The *Déclarations Annuelles de Données Sociales* (DADS) is a French linked employer-employee database widely used in the economic literature (see e.g. Abowd et al. (1999)). It is based on annual social security records of firms and contains for each employee information related to employment, labor earnings, number of hours worked, and other relevant information provided by employers. The report is usually done by HR services and has important consequences, e.g. on the amount of social security contributions paid by the firm. We use the exhaustive yearly versions of this dataset that cover the entire salaried workforce in each of their employment spell (DADS-Postes), for years 2015 to 2019. A crucial element to our approach is the presence, starting from 2017, of a variable that describes the working time unit (day or hours) of the employee. This variable provides administrative information on the legal arrangement of working time, i.e. on whether the employee works under a contract in days or in hours. We also use net annual labor earnings and paid annual hours worked, as reported by the employer. This measure of hours includes all periods that involve a remuneration, hence not only regular working weeks but also paid leave. Note that the reported measure of hours is meaningless for workers with a day contract, consistent with their status.

3.2 The REPONSE Dataset

The empirical analysis is also based on the French Ministry of Labor's Workplace Employment Relations Survey for 2016-2017 (REPONSE17), covering 5,948 non-agricultural business workplaces with more than 10 employees. REPONSE17 is one of the leading sources of data on industrial relations in France. Its main originality and strength is to collect information in most participating workplaces from a management representative, a sub-sample of employees, and a worker representative.

Employer survey (REPONSE17-Employer). In 4,363 of the participating workplaces, a management representative could complete a lengthy face-to-face interview relating mainly to work organization and industrial relations. The answers constitute the employers' part of the survey, from which we retrieve information on the presence of union representatives, the practices in terms of mutually agreed contract ends, use of overtime hours or telework, the nature of collective agreements, and other workplace characteristics.

Worker representative survey (REPONSE17-REP). At the end of her interview, if the management representative declares that there are worker representatives in the workplace, she is asked to provide the contact details of one of them. 2,891 worker representatives are identified that way and subsequently interviewed, providing detailed information on their mandate and industrial relations in the workplace. In this paper, we do not use any information from this part of the survey.

Worker survey (REPONSE17-Workers). A random sample of 5 to 10 workers in each participating workplace finally receives a 2-page, 50-item questionnaire by mail or by email. The questionnaires are filled out by a core sample of 21,320 workers in the subset of 4,363 workplaces that participate in the employer survey, plus an additional sample of 7,643 workers in 1,584 more workplaces for which no workplace level information is available. The structure of the survey, collected on several workers per workplace, allows us to use a workplace fixed effect in most of our specifications. The data includes the usual worker demographics, work organization, job satisfaction, union membership and representation mandates. Hourly earnings for 2015, taken from the DADS, have directly been matched with REPONSE17 by the Ministry of Labor. These hourly earnings are constructed as annual earnings divided by the number of hours worked. They include basic wages, performance-related pay and non-performance related bonuses. They are net of employers and workers' social security contributions, but gross of income tax.

As part of the survey, workers are asked if their working time is subject to a *forfait jours* agreement. We use their answer as a reliable information about worker beliefs regarding their work arrangement. The question is asked in the following terms (in French): *"Is your working duration determined in the form of a forfait jours agreement? The principle of forfait jours agreements is based on counting working time in terms of the number of days per year rather than in hours."*. Individuals are offered to answer "yes", "no" or "do not know". This last option legitimates our interpretation

of positive answers as conveying a worker's belief about their arrangement, thus is important to the purpose of the paper. After dropping observations where the information on *forfait jours* is missing (1% of the sample), we obtain a dataset of 28,529 workers.

3.3 Sample

Our goal is to identify workers who report themselves as subject to a *forfait jours* agreement in the survey, but who do not appear as so in administrative records. Then, we need to connect the REPONSE17-Workers dataset, containing the survey information, with the DADS 2017 dataset at the individual level. To build this sample, we procede in multiple steps.

First, we link REPONSE17-Workers to the DADS 2015 dataset using the workplace's ID and the main characteristics of the workers[5]. The high matching quality relies on the presence in REPONSE17-Workers of annual earnings and annual hours worked from the DADS 2015 dataset, that provide a consistent and very granular matching variable. We are able to perfectly match 27,682 individuals out of the initial 28,529 (97% matching rate). This first match yet combines survey information from the year 2017 with admin information regarding the year 2015, which does not permit a proper comparison. To confront both sources of information on the same year, we use the method from Babet et al. (2022) chaining DADS datasets across years[6], hence building unique workers' IDs between 2015 and 2017 to construct a quasi-exhaustive panel dataset. Using a correspondence table of yearly identifiers to this unique identifier, the matched sample is reduced to 23,160 observations (84% matching rate). Out of this number, we are able to connect 22,867 workers (99% matching rate) to a unique 2017 identifier. It means that we have access to both administrative and survey information on the presence of a *forfait jours* agreement for 80% of the original sample.

Throughout the construction of the sample, the main loss of observations occurs in the 2015-2017 DADS chaining step. In their original paper, Babet et al. (2022) report matching rates of 98% between 2015 and 2016, and 91-93% between 2016 and 2017, which produces a 90% (0.98×0.92) overall matching rate from 2015 to 2017, thus slightly superior to our 84%. This difference is likely due to the scope of the REPONSE survey, which only concerns workplaces with more

[5]Worker-related match variables are age, sex, annual net labor earnings, annual hours worked

[6]The method exploits the overlap of information generated by variables describing the worker's situation in the previous year.

than 10 employees. As the chaining procedure relies on the overlap of information in t and $t-1$ datasets, we argue that information is less likely to be consistent across years for workers in large workplaces. Table A1 in the Appendix compares the final sample with the original REPONSE17-Workers dataset on main characteristics.

The final sample divides as follows with respect to the survey and administrative information. 8.9% of the sample are workers with a day contract who report themselves accurately in the survey data. 56.3% are workers with an hours contract who report themselves accurately in the survey data. 18.3% are workers with an hours contract who misreport themselves in survey data, i.e. they claim that they work under a day contract. Those individuals are our main group of interest throughout the paper. Finally, 15.6% of the sample are workers with an hours contract who answer in the REPONSE survey that they do not know whether their contract is in days or in hours. Table 1 recapitulates the distribution of the different status in the sample. We remove from the sample the few individuals (1% of the sample) who work under a day contract according to the administrative records but who either answer that they have an hours contract or that they do not know their contract status in the REPONSE17-Workers survey. In the course of the paper, workers with hours contract who accurately report are used as the reference group in most specifications, while groups of uncertain or day-contract are used as a benchmark to the estimates of misreporters.

We address some potential issues related to the definitions of contract and information status. First, we consider the employer-reported information from the DADS variable as describing the true working time status of the individual. This assumption is supported by the administrative nature of the database, and by the nearly 10% share of workers with an actual day contract that is in line with other sources (*Enquête Emploi, ECMOSS*) published by Insee, the French national institute of statistics.

However, employers may have strategic incentives to misreport some workers with day contracts as having hourly contracts. Since social security contributions are higher for *cadres* (corporate executives) — who are typically eligible for *forfait jours* agreements, employers have financial incentives to misreport the status of these workers to avoid extra costs. This would require misreporting both the worker's occupation (as intermediate worker rather than *cadre*) and the contract type to maintain consistency. In such cases, workers who we label as misreporters would in fact be correct while their administrative information would be wrong. To evaluate this risk, we examine

Table 1: Distribution of Workers by Contract and Information Status

		Worker's belief about their contract (REPONSE17-Worker)		
		Day Contract	Hours Contract	Do Not Know
Contractual administrative information (DADS)	Day Contract	Accurate Reporters 8.9%	- 0.4%	- 0.6%
	Hours Contract	Misreporters 18.2%	Accurate Reporters 56.3%	Do Not Know 15.6%

Note: This table presents the distribution of contract × information status in the final analytical sample based on the combination of survey responses and DADS administrative records. Workers' beliefs about their contract are based on their answer to the question about the existence of a *forfait jours* agreement. See Section 3 for more details. Day contracts denote labor contracts associated with a *forfait jours* agreement, i.e. without mandatory monitoring of hours worked. Hours contracts gather all other labor contracts. Workers are classified into four categories: (1) "Day Contract - Accurate Reporters" who report holding a day contract in the survey and who appear as so in the administrative records; (2) "Hours Contract - Accurate Reporters" who report not being subject to a day contract in the survey, consistently with DADS administrative records; (3) "Hours Contract - Misreporters" who report working under a day contract in the survey but do not appear as such in DADS administrative records—these misreporters constitute the main group of interest throughout the paper; and (4) "Hours Contract - Do Not Know" workers who respond "do not know" when asked about their contract status in the REPONSE survey, while working under an hours contract according to DADS administrative records. Individuals who have a day contract in administrative records but answered "no" or "do not know" in the survey (approximately 1% of the sample) are excluded from the sample hereafter.

the workplace-level correlation between the share of intermediate workers in the workplace and the share of misreporters among intermediate workers. The idea is that workplaces that undertake those reporting strategies would have a higher share of intermediate workers implied by the under-declaration of *cadres*. We find no evidence in our sample that these measures are positively correlated.

Second, we argue that the group of misreporters does not simply result from random error in workers' perceptions of their contract and that they reflect their genuine beliefs. Under random error, the probability of misreporting would be equal regardless of the actual type of contract. However, given that 90% of our sample have hourly contracts, the misreporting rate among hourly contract workers is approximately 20.2% (18.2/90), while the equivalent rate among day contract workers is only 4% (0.4/10) from Table 1. Accounting for potential random error —– which could explain at most 0.4% of workers misreporting their day contracts —– would thus reduce the 18.2% misreporting rate among hourly contract workers by only 3.6 percentage points.

4 Description of the Misreporters

Section 4.1 describes the characteristics of misreporting individuals and isolates potential determinants for their misreport. Section 4.2 establishes to what extent misreporting occurs in some specific workplaces.

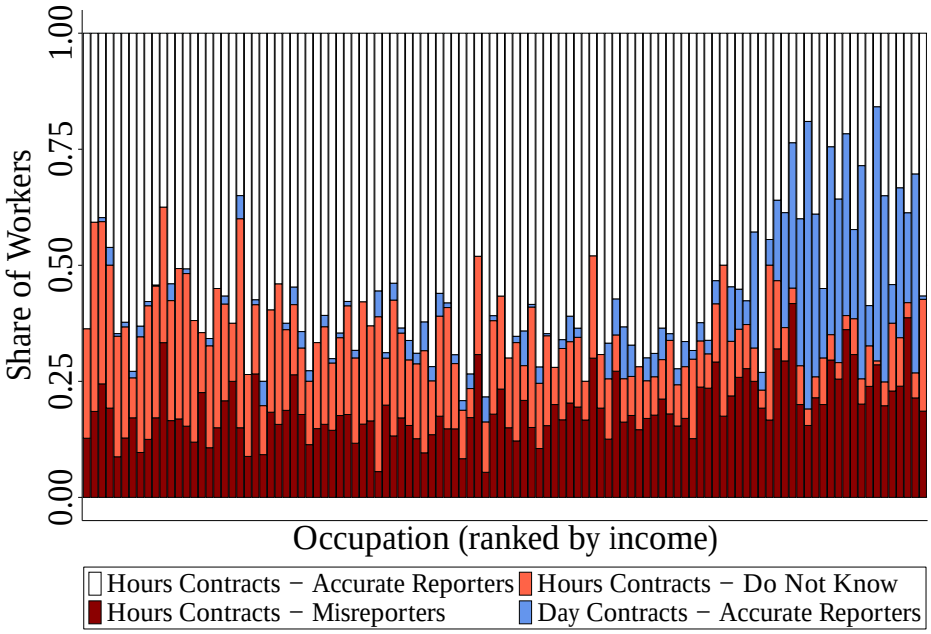
4.1 Individual Characteristics

First, we focus on the individual characteristics of workers with an hours contract who misreport their working time status. The goal of the section is to understand who those potentially at-risk individuals are. For example, are they similar in profile to workers with an actual day contract, hence their beliefs, or rather to uncertain workers, as their knowledge of their working time arrangement is also limited? Figure 1 plots the distribution of workers' types by occupation at the 3-digit level in the PCS classification (110 levels), where occupations are ranked by average annual labor earnings. Workers with a day contract are concentrated in white-collar occupations, on the right tail of the income distribution. This is consistent with legal requirements associated with *forfait jours* agreements that stipulate that workers should have great autonomy in organizing their work tasks and schedules—typically managers, engineers, and senior professionals. In contrast, misreporters, the main group of interest, show a markedly different occupational profile. While slightly overrepresented in typical day-contract occupations, they are dispersed across the entire occupational distribution. Most strikingly, more than 50% of these employees work in an occupation that is supposedly not eligible for such contracts[7], therefore the misreporting population appears as relatively diverse in jobs. On the other hand, the representation of workers who do not know their working time arrangement decreases systematically with respect to the income distribution. This suggests that misreporters should be considered as distinct in profile from workers who report not knowing their type of contract.

This statement is reinforced by considering other characteristics. Figure 2 examines the demographic and workplace factors that predict misreporting behavior. We first study the role of age, gender, occupation, highest level of diploma, and workplace size. The coefficients are estimated in two separate linear regressions using a dummy equal to 1 if the belong to a certain group as the outcome and all characteristics simultaneously as covariates. The first regression compares

[7] An occupation is considered as ineligible to *forfait jours* agreement if less than 1% of workers in this occupation have a day contract according to the administrative source.

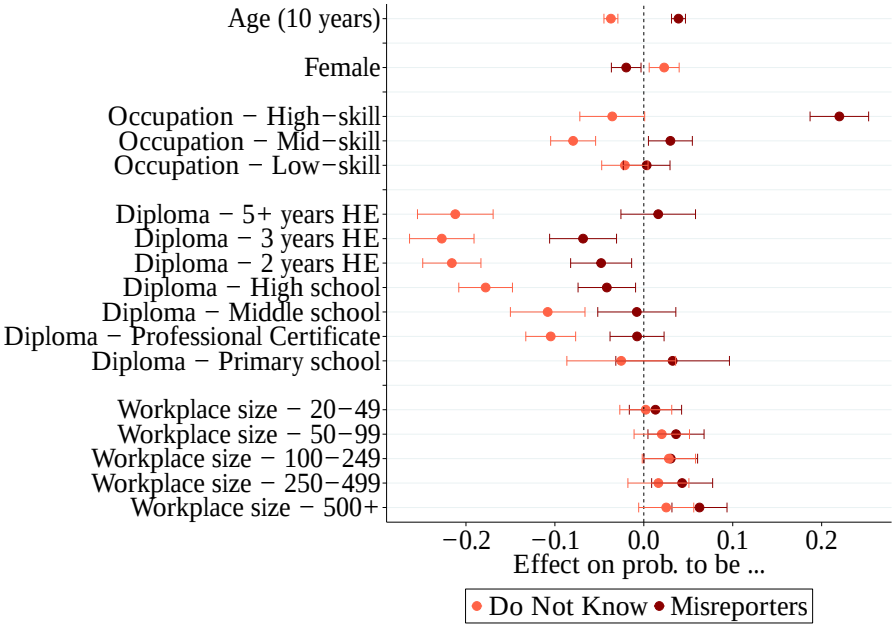
Figure 1: Distribution of Contract and Information Status by Occupation, 2017



Note: This figure represents the distribution of contract × information status by occupation, as derived from the combination of the REPONSE-17 Workers survey and DADS administrative records. The constructed sample covers 22,867 individuals. Groups are defined in Section 3 and Table 1. Occupation groups correspond to the 3-digit level in the PCS classification (110 levels) and are ordered by mean DADS annual earnings with lowest-paid occupations on the left. Occupation groups with less than 20 workers in the sample are not displayed.

misreporters with workers with an hours contract who accurately report, while the second compares workers who report not knowing their status to the same reference group. We thus compare workers with the same type of contract, hours contract, but who hold different beliefs about it. The results reveal several significant patterns. Older workers are more likely to misreport their contract status, but age does not affect uncertainty. Women show the opposite pattern—they are more likely to report not knowing their contract status and less likely to misreport. As previously shown in Figure 1, white-collar occupations are more likely to misreport, but not to report "do not know" in the survey. The magnitude of the estimate for misreporters ($\hat{\beta} = 0.215$) is enhanced by the relatively low proportion of white collar workers in the reference group. Within occupations, educational attainment is negatively correlated with misreporting, although much less than not knowing. Lastly, larger establishments are associated with higher rates of misreporting, with the effect increasing monotonically across size categories. All details of those results are shown in Table A2.

Figure 2: Characteristics of Misreporters and Uncertain Workers (Hours Contracts)



Note: This figure presents coefficient estimates and 95% confidence intervals from linear regressions examining the probability of misreporting or being uncertain about their contract status. Two regressions are run on all characteristics simultaneously (along with an industry fixed effect), using dummies for misreporting, in the first case, or not knowing, in the second case, their contract. Groups are defined in Section 3 and Table 1. Occupations are defined at the 1-digit level in the PCS classification (4 levels). The reference categories are respectively male workers, low-skill manual occupation, no diploma, and workplace size of 11-19 employees. HE = Higher Education. All estimates are relative to workers with an hours contract who report correctly. More details are available in Table A2.

Next, we investigate the importance of the information channel in the phenomenon of misreporting by studying unionized workers and worker representatives. As discussed in Bourdieu et al. (2023), the role of worker representatives is likely to be important and related to the social climate, possible industrial conflicts, and the outcome of negotiations. In the context of this study, we expect worker representatives to be more aware of working time regulations and to act as a source of information for their coworkers. Similarly, unionized workers should be more sensitive to working time issues. We also exploit four additional questions from the REPONSE17 survey measuring worker autonomy: work supervision intensity, work-life balance quality, work schedule nature, and information quality about working time arrangements. Figure A1a shows how these factors relate to misreporting behavior. We find that being a worker representative has no effect on misreporting the forfait status, but significantly decreases the probability to be uncertain. The better knowledge of worker representatives yet does not trickle down to other employees in the workplace. Conversely, unionized workers tend to misreport their working time status less.

Additional results show that workers who report having poor information about their working time arrangements are significantly more likely to report unknown contract status.

4.2 Distribution Across Workplaces

This second part aims to study whether misreporters tend to work in specific workplaces, with particular employment structures and practices. Misreporters are relatively widespread, appearing in 2,757 workplaces (51% of the sample), as compared to 1,215 workplaces (22% of the sample) for workers with an actual day contract. Do those two types of workers tend to work in the same firms? Figure A2 shows that the presence of misreporters is not correlated with the share of day-contract workers at the workplace level (split in deciles). This suggests that misreporting is not primarily driven by mimetic behavior within workplaces where *forfait jours* agreements are common. On the other hand, the share of workers who report not knowing their contract status neatly decreases over the distribution. It shows, on this dimension as well, that misreporters and uncertain workers differ in profile.

Using the employer part of the survey, we then examine how employment practices and labor relations in the workplace affect misreporting behavior. The results, shown in Figure A1b, depict misreporters as more likely to work in companies with flexible management. The probability for a worker to misreport increases, sometimes non-significantly, in workplaces with regular negotiations, mutually agreed contract ends, firm-level agreements on working time, and strikingly telework, while it decreases in places with tense climate and with a strong use of overtime hours. Some of those effects are driven by the larger proportion of high-skill workers in the group of misreporters (e.g. negotiations, contract ends), but other factors, such as telework and use of overtime hours, also remain significant when restricting the sample to workers with lower skills.

The descriptive analysis reveals that workers with hours contracts who misreport their contract status are different from other workers, both those with hours contracts who do not misreport and those with day contracts. The evidence suggests that misreporting is not simply confusion, but reflects how certain workplace conditions might blur the lines between different contract types. This raises an important question: do these workers' beliefs about their contracts affect their working conditions?

5 Working Conditions of Misreporters

This section focuses on the relation between misreporting and working conditions. We assess to what extent workers who misreport their working time arrangements are disadvantaged in their job, in terms of monetary and non-monetary features, as compared to similar workers with correct beliefs.

The analysis proceeds in four parts. Section 5.1 examines working hours using administrative and worker-reported measures. Section 5.2 analyzes earnings differentials between misreporters and correctly informed workers. Section 5.3 investigates job satisfaction outcomes. Finally, Section 5.4 explores misreporters' short-run employment trajectories.

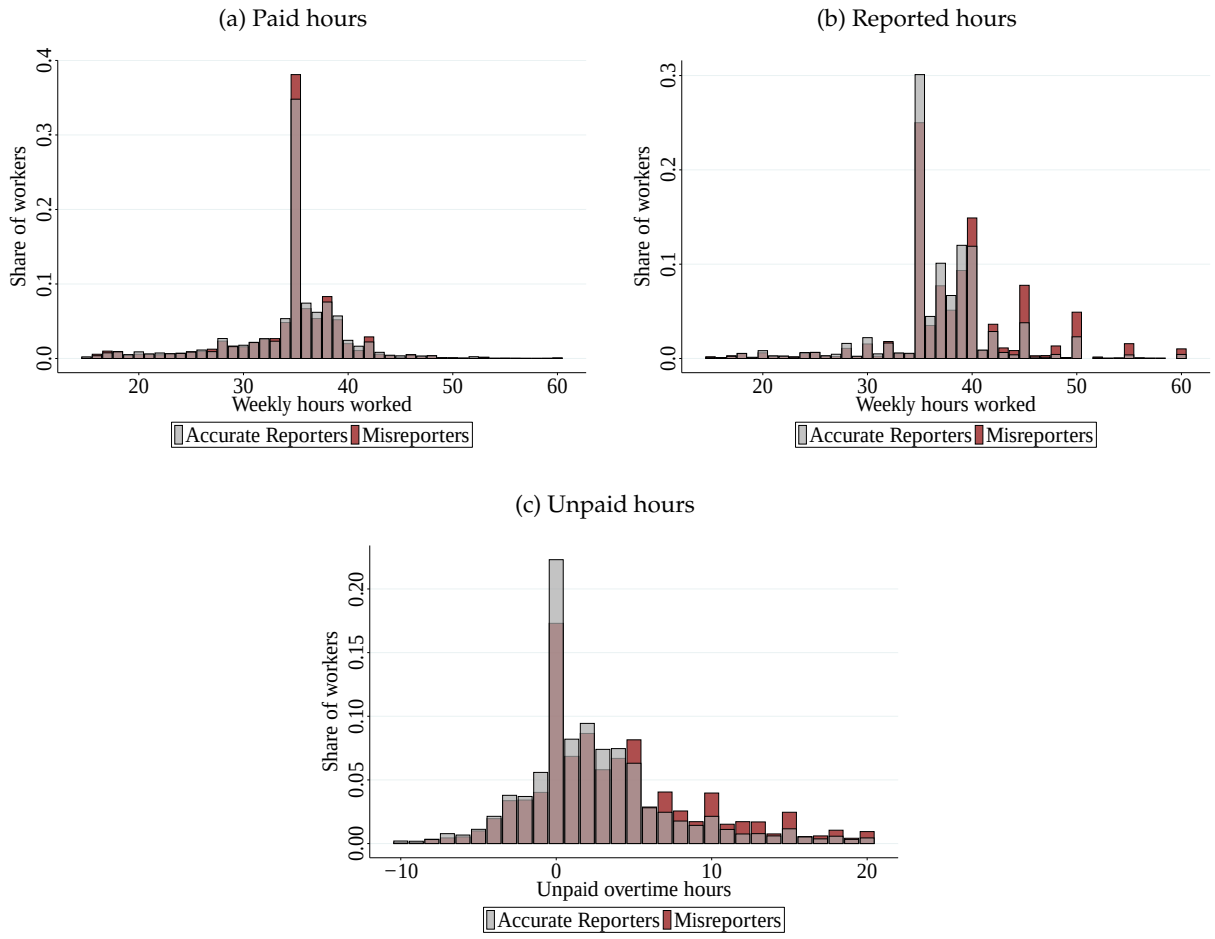
5.1 Hours Worked

Do misreporting workers work more hours due to their apparent wrong beliefs about their working time arrangement? To answer this question, we compare their hours worked to similar workers with hours contracts who accurately report their status. We consider two alternative definitions of hours that reflect two different conceptions. First, administrative hours, as reported by employers in annual social security records and displayed in the DADS datasets, correspond to the number of paid hours worked. Paid hours are defined as including all remunerated periods, not only regular working weeks but also paid leave, a definition close to contract hours. Those annual hours are recomputed as a full-time equivalent over the entire year and divided by 52 to create a weekly measure of hours. Second, reported (usual) weekly hours from the REPONSE17-Workers survey provide a worker perspective comparable to labor force survey measures.

Figures 3a and 3b present distributions of both measures for the two main groups of workers with hours contracts: accurate reporters and misreporters. There is no striking difference between both groups in terms of paid hours but significantly higher reported hours for workers who misreport. In particular, the latter appear to be more likely to work 40 hours or more per week, a duration that would imply overtime compensation. Consequently, the difference between reported and paid hours is larger for misreporters than for accurate reporters, as shown in Figure 3c. This suggests that a larger share of their hours worked may not be associated with a payment. In the rest of the paper, we thus consider the difference between reported and paid hours as unpaid hours worked. Note that this new outcome is meaningless for workers with an actual *forfait jours*

agreement as their working time is measured in days rather than hours.

Figure 3: Hours of Accurate Reporters and Misreporters (Hours Contracts)



Note: These figures represent the distributions of weekly hours worked by workers with hours contracts who either accurately report or misreport their type of contract. Values below 15 or above 60 in (a) and (b) and below -10 and above 20 in (c) are not displayed. Groups are defined in Section 3 and Table 1. The sample contains 15,767 workers.
(a) Paid hours are reported by employers in annual social security records published in the DADS data and cover all periods that involve a remuneration. Those annual hours are recomputed as a full-time equivalent over the entire year and divided by 52 to create a weekly measure of hours.
(b) Reported hours correspond to answers to the question *"how many hours per week do you work on average?"* in the REPONSE17-Workers survey.
(c) Unpaid overtime hours are defined as the difference between weekly hours reported in the REPONSE17-Workers survey and DADS paid hours.

We turn to a regression approach to account for differences in individual characteristics that may drive the difference in hours worked. We use simple linear regressions, where the coefficient of interest captures the difference in hours associated with being a misreporter as compared to workers with an hours contract who report correctly, holding observables equal. The set of con-

trols includes age, sex, diploma level (8 categories), a dummy for being a part-time worker, and we use two sets of fixed effects dummies for occupation (2-digit level in the PCS classification, 23 levels) and workplace. We consider the three outcomes previously introduced in Figure 4: reported hours, paid hours and unpaid overtime hours.

Table 2 displays the results and indicates that being a misreporter is associated with a 1.6% significant increase in reported hours while having no effect on paid hours. The combination of those two effects leads to a substantial increase in unpaid overtime hours equal to approximately 0.8 hour per week. Misreporters thus appear to work excess hours as compared to similar workers with correct beliefs.

Table 2: Hours Worked Gaps between Misreporters and Non-Misreporters (Hours Contracts)

Dependent Variables:	Reported hours	Paid hours	Unpaid hours
Variable Type:	*Log*	*Log*	*Level*
Model:	(1)	(2)	(3)
Misreporter	0.016***	-0.003	0.811***
	(0.003)	(0.004)	(0.120)
Controls: Age, Sex, Diploma, Part-time, U-WR			
Fixed-effects			
Occupation	X	X	X
Workplace	X	X	X
Observations	18,912	18,912	18,912
R^2 Adj.	0.73	0.61	0.53
Mean dep. var.	37.0	34.8	3.2

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.*
Note: This table presents OLS estimates of the relationship between being a misreporter and different measures of hours worked. The sample consists of 18,912 workers. Groups are defined in Section 3 and Table 1. "U-WR" refers to a dummy variable equal to 1 if the individual is unionized or acts as a worker representative. Occupations correspond to the 2-digit level in the PCS classification (23 levels). Reported hours correspond to responses to "how many hours per week do you work on average?" in the REPONSE17-Workers survey. Paid hours, from the DADS data, are derived from employer-reported annual social security records and converted to weekly full-time equivalents. Unpaid hours represent the difference between reported and paid hours. Log transformations are used for reported and paid hours. All estimates are relative to workers with an hours contract who report correctly. Standard errors are heteroskedasticity-robust and reported in parentheses.

We find that workers who misreport their working time arrangement report on average significantly more hours than workers with similar characteristics and contractual administrative infor-

mation. We interpret those results as evidence of non-compliance to regulations, since employers should control hours of their workers. As paid hours are identical, the additional reported hours are likely not remunerated and thus could imply a loss in earnings. The next sections examine the relation of misreporting to earnings and other types of compensation.

5.2 Earnings

We follow the same approach as in the previous section, considering monetary outcomes instead of hours worked. Variables used as outcomes are weekly labor earnings (equal to net annual labor earnings divided by the number of weeks worked over the year) and hourly wages using reported (the *true* hourly wage) or paid hours (the *official* hourly wage). In addition, we measure the differential outcome of workers with actual day contracts in order to compare estimates across different types. This particularly provides a reference for the wage premium associated with the group of misreporters and illuminates their underlying status: are they closer to workers with whom they share the same contract, or to workers with an actual day contract who they believe to be?

As before, the coefficient of interest captures the difference in outcome between misreporters and similar workers with hours contracts but correct beliefs. Although it is not the central focus of this paper, the estimation of the coefficient associated with day contracts provides new evidence on the value attached to flexible work arrangements using a unique setting. Table 3 reports estimates on monetary outcomes, along with those on reported hours derived from the previous table and included as a reference. Panel A shows baseline results with the same set of controls as Table 2 while Panel B includes variables on workers' autonomy from Figure A1a as controls. Although the notion of hours worked is not relevant for them, workers with day contracts report working on average 10% more hours than workers with hours contracts and similar jobs. This important workload is compensated by substantially higher earnings, leading to a 12-14% premium in true wages associated with signing a *forfait jours* agreement. This effect is large and, albeit subject to selection bias, reflects the high value that employers attach to flexible arrangements. In Section5.4, we leverage panel data to provide similar estimates on earnings controlling for worker fixed effects.

Next, we focus on misreporting workers, whose reported hours exceed those of the reference group. Estimates on earnings and wages show that those workers are overcompensated for their extra hours worked. Their weekly earnings are 3% to 4% higher, depending on the specification. This implies a significant increase in true hourly wages of magnitude 1.5-2% as compared to accurate reporters. Paid hours are similar across workers, as in Figure3a, so the coefficient on hourly wages using paid hours is close to the one on weekly earnings.

The wage premium might reflect compensation for overtime work, which is paid at higher rates than standard hours in France. Overtime begins after 35 hours, with premiums of 25% up to 43 hours and 50% thereafter. We examine whether the observed 2% wage increase merely offsets this additional overtime without providing separate compensation for increased flexibility. Appendix B details a simple framework for computing the share of the wage difference that should be explained by overtime compensation. Using values (and 95% standard errors) from Table 3's Panel B as calibration, we find that the counterfactual change in wages driven by the increase in overtime hours is 0.41% and its 95% confidence interval is $(0.34\%; 0.48\%)$. This amounts to about 23% of the effect that we estimate on true wages. In other words, the difference in wages that we estimate is not solely driven by compensation for overtime work, but also results from underlying gaps in the baseline wage. Applying the same approach to workers with day contracts, we find that the gap in reported hours could explain about 15% of the wage premium. Although the overtime payment framework is not relevant for them, this estimation reflects that the wage premium of workers day contracts largely exceeds their counterfactual gains under an hourly scheme.

We then examine heterogeneity in the effects of misreporting across various worker and firm characteristics. Figure 4 presents the estimated effects on reported hours, weekly earnings, and wages (both true and official) for different subgroups previously studied in Figure 2. The results reveal that positive effects on hours and earnings are mostly driven by high-skill and mid-skill occupations (low-skill manual occupations serve as reference). The occupation-based heterogeneity is particularly pronounced for high-skill jobs (most of them being executive jobs in private firms), where misreporters work on average more unpaid hours per week, leading to substantial compensation in weekly earnings. The effects on hours and earnings cancel out in true wages so that the 2% wage premium appears as relatively common across occupations, although superior to the reference group.

Table 3: Hours and Wages Gaps between Misreporters and Non-Misreporters

Dependent Variables (in logs):	Reported hours	Weekly earnings	Wages (*true*)	Wages (*official*)
Model:	(1)	(2)	(3)	(4)
Panel A: Baseline				
Hours Contract - Misreporter	0.016***	0.032***	0.015**	0.035***
	(0.003)	(0.007)	(0.008)	(0.008)
Day Contract	0.096***	0.215***	0.119***	-
	(0.005)	(0.017)	(0.016)	
Observations	20,307	20,307	20,307	20,307
R^2 Adj.	0.73	0.78	0.73	0.75
Mean dep. var.	37.0	483	13.0	14.1
Panel B: With Controls on Worker's Autonomy				
Hours Contract - Misreporter	0.018***	0.038***	0.020**	0.036***
	(0.003)	(0.009)	(0.009)	(0.009)
Day Contract	0.097***	0.233***	0.136***	-
	(0.006)	(0.018)	(0.018)	
Observations	14,480	14,480	14,480	14,480
R^2 Adj.	0.74	0.77	0.72	0.74
Mean dep. var.	37.0	477	12.9	13.9
Baseline controls: Age, Sex, Diploma, Part-time, U-WR				
Occupation	X	X	X	X
Workplace	X	X	X	X

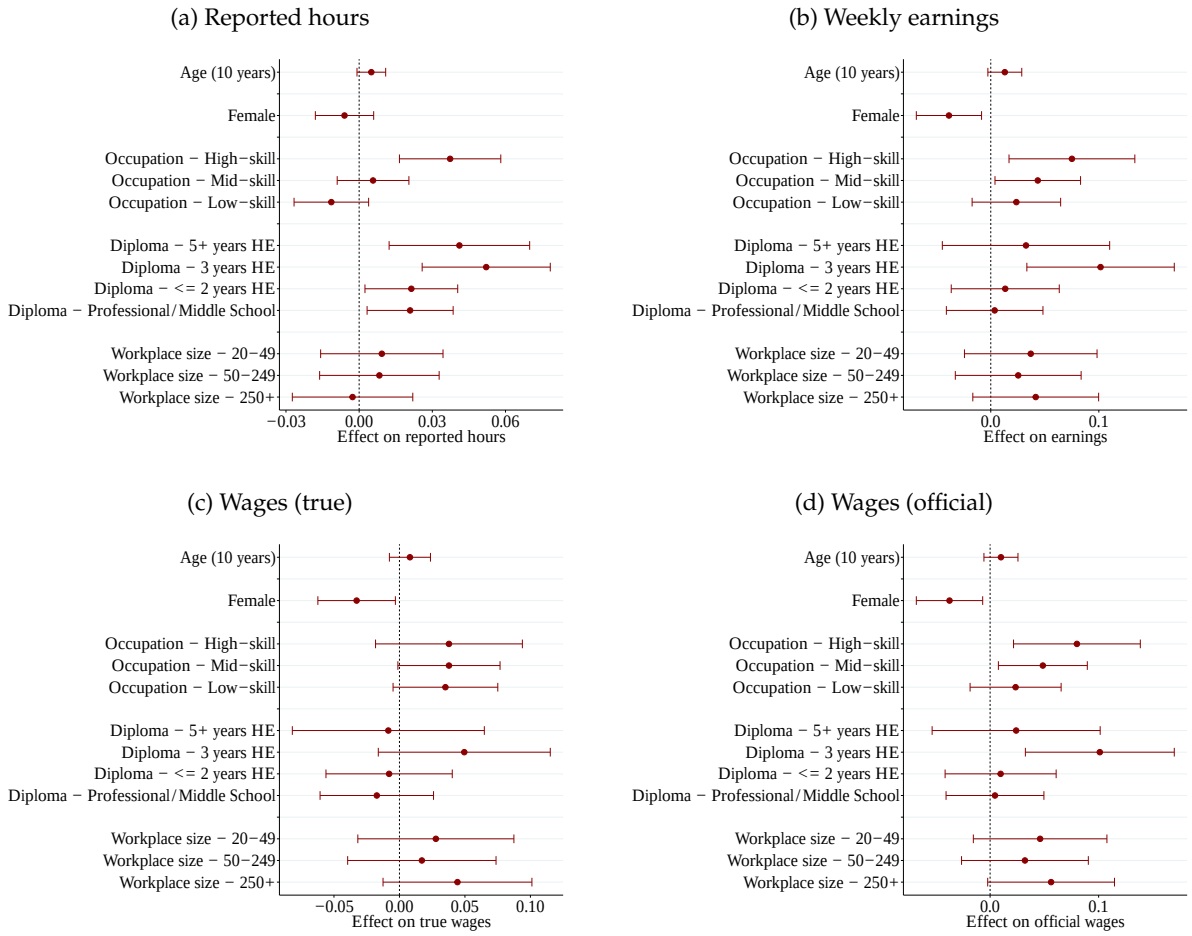
*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.*

Note: This table presents OLS estimates of the relationship between being a misreporter and different monetary outcomes. Panel A uses baseline controls and a sample of 20,307 workers. Panel B also includes controls on workers' autonomy from Figure A1a: work supervision, work-life balance, schedule and information on working time. Groups are defined in Section 3 and Table 1. "U-WR" refers to a dummy variable equal to 1 if the individual is unionized or acts as a worker representative. The sample for Panel B drops to 14,480 workers because of missing values. Occupations correspond to the 2-digit level in the PCS classification (23 levels). Reported hours correspond to responses to "how many hours per week do you work on average?" in the REPONSE17-Workers survey. Weekly earnings are equal to net annual labor earnings divided by the number of weeks worked over the year. Wages (true) and Wages (official) are computed respectively using reported hours from REPONSE17-Workers survey and DADS paid hours as the definition of hours worked. Log transformations are used for all outcomes. All estimates are relative to workers with an hours contract who report correctly. Standard errors are heteroskedasticity-robust and reported in parentheses.

The figure also shows that the effects vary significantly in other dimensions. Age shows slightly positive effects on both hours and earnings. In contrast, female workers exhibit negative effects on earnings and true wages, indicating that women may be more disadvantaged by their limited knowledge. Effects associated with higher education are nuanced, with workers having 3 years

of higher education showing positive effects, while other education levels show more mixed results. Workplace size appears to play a neutral role, as effects remain relatively consistent across different firm sizes.

Figure 4: Hours and Wages Gaps between Misreporters and Non-Misreporters: Variation across Workers' and Firms' Types



Note: These figures present estimates and 95% confidence intervals from linear regressions examining the effect of individual characteristics on the relation between misreporting and the main outcomes. Each outcome is fit on a separate regression on individual characteristics interacted with a dummy equal to 1 if the individual has an hours contract and is misreporting their contract status. All controls and fixed effects from Table 3 Panel A are included in the regression. Occupations correspond the 1-digit level in the PCS classification (4 levels). The reference categories are respectively male workers, low-skill manual occupation, no diploma or primary school diploma, and workplace size of 11-19 employees. HE = Higher Education. Log transformations are used for all outcomes. All estimates are relative to workers with an hours contract who report correctly. The sample contains 18,803 workers. Standard errors are heteroskedasticity-robust and reported in parentheses.
(a) Reported hours correspond to answers to the question *"how many hours per week do you work on average?"* in the REPONSE17-Workers survey.
(b) Weekly earnings are equal to net annual labor earnings from the DADS data divided by the number of weeks worked over the year.
(c) Wages (true) are computed using reported hours from REPONSE17-Workers survey.
(d) Wages (official) are computed using DADS paid hours.

5.3 Job Satisfaction

This section applies the same approach to job satisfaction outcomes, finding results consistent with the hours and wages analysis. We consider three dimensions of job satisfaction based on the REPONSE17-Workers survey which cover overall satisfaction, satisfaction with the work schedule, and satisfaction associated with working conditions. Each outcome variable is a dummy variable equal to 1 if the individual reports being either "very satisfied" or "mostly satisfied" about the given topic, as opposed to "mostly not satisfied" and "not satisfied". The expected effects on job satisfaction for both day contract workers and misreporters are theoretically ambiguous, as these groups earn higher wages but also work longer hours.

Table 4 shows how job satisfaction differs between workers who misreport their hours and those who do not. Workers who misreport their hours tend to report slightly higher overall job satisfaction and satisfaction with working conditions compared to accurate reporters, though these effects are small and generally not statistically significant due to sample size limitations. Importantly, these modest positive effects are consistently smaller than the satisfaction premiums enjoyed by workers with day contracts. As in previous results, workers who misreport locate in the interval between common workers with hours contracts and workers with day contracts. Regarding the working schedule, misreporters show virtually no difference from accurate reporters, consistent with previous estimates on reported hours.

This analysis of job satisfaction outcomes provides important complementary evidence beyond traditional measures of hours and earnings. The finding that misreporting workers' satisfaction levels fall between those of accurate reporters and day contract workers suggests that misreporters benefit from looser management. The consistency between objective measures (hours and wages) and satisfaction strengthens the validity of the findings and demonstrates that incorporating worker well-being metrics alongside traditional economic indicators provides a more complete understanding of labor market dynamics.

5.4 Earnings' Trajectories

In this last section, we study the evolution of misreporting workers in the short-run, as compared to workers with hours contracts who accurately report. Our goal is to understand whether the distinct working conditions, in terms of hours and earnings, experienced by misreporters per-

Table 4: Job Satisfaction Gaps between Misreporters and Non-Misreporters

Dependent Variables:	*Overall JS*		*Working schedule JS*		*Working conditions JS*	
Model:	(1)	(2)	(3)	(4)	(5)	(6)
Hours Contract - Misreporter	0.016**	0.016*	0.000	-0.003	0.019**	0.017*
	(0.008)	(0.009)	(0.007)	(0.009)	(0.008)	(0.010)
Day Contract	0.028**	0.049***	-0.014	-0.007	0.031**	0.040**
	(0.012)	(0.016)	(0.011)	(0.016)	(0.013)	(0.016)
Controls: Age, Sex, Diploma, Part-time, U-WR						
Occupation	X	X	X	X	X	X
Workplace Size	X		X		X	
Industry	X		X		X	
Workplace		X		X		X
Observations	20,223	20,265	20,279	20,321	20,202	20,244
R^2 Adj.	0.03	0.33	0.03	0.35	0.04	0.37
Mean dep. var.	0.78	0.78	0.81	0.81	0.73	0.73

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.*
Note: This table presents OLS estimates of the relationship between being a misreporter and different job satisfaction outcomes. Groups are defined in Section 3 and Table 1. "U-WR" refers to a dummy variable equal to 1 if the individual is unionized or acts as a worker representative. Occupations correspond to the 3-digit level in the PCS classification (110 levels). Industries correspond to 13 aggregate groups in the NAF classification. Outcomes are built using questions from the REPONSE17-Workers survey. Each outcome is a dummy variable equal to 1 if the individual reports being either very satisfied or mostly satisfied with their overall job, working schedule, and working conditions, respectively. All estimates are relative to workers with an hours contract who report correctly. Standard errors are heteroskedasticity-robust and reported in parentheses.

sist in the years following our initial observation. We track these workers' trajectories based on key employment decisions: whether they remain with the same employer, move to a different firm, or *switch* to a day contract. Then, we exploit those *switchers* from our data in order to estimate the effects associated with signing a *forfait jours* agreement for a given individual.

To track workers across job transitions, we use the chaining procedure from Babet et al. (2022) (detailed in Section 3) to construct a panel dataset based on DADS records covering most of our previously linked workers. This approach allows us to follow 17,764 workers from 2017 to 2019[8] and to observe their employment spells, earnings, paid hours[9] and working time status up to that point. Throughout this analysis, we classify workers as *movers* if their main employer (i.e. work-

[8] We consider 2019 instead of 2018 to get a longer time span and a larger number of switchers in the last specification.
[9] As we do not observe total declared hours in 2019, we cannot study this key outcome with panel data, which is why our primary analyses focus on the 2017 match between REPONSE17-Workers and the DADS.

place) in that year differs from the previous year, where the main employer is defined as the one providing the highest annual earnings. Conversely, *stayers* are workers who remain in the same workplace across consecutive years. This classification enables us to examine how employment mobility affects the working conditions and reporting behavior of different workers over time. Movers represent 18% of the sample.

First, we consider the trajectories in earnings and hours between 2017 and 2019 of workers who misreport in 2017. Given that these workers tend to have more advantageous working conditions, we investigate whether this translates into better career progression.. For each individual of our panel, we compute the evolution rate in hours and earnings, using measures from the DADS records. Outcome variables are thus defined as $y_i = (y_{i,2019} - y_{i,2017})/y_{i,2017}$ for a given individual i. We then regress these evolution rates on the "misreporter" dummy variable and focus on the coefficient of interest, which can be interpreted as the percentage point difference in growth rates between misreporters and accurate reporters..

Results, displayed in Table A3, suggest that misreporters in 2017 have minimal differences with accurate reporters in terms of subsequent earnings and hours trajectories through 2019. The coefficient estimates for misreporters are consistently small in magnitude and non-statistically significant across all specifications. These findings provide no evidence of meaningful differences in career progression between workers who misreported their hours in 2017 and those who reported accurately, suggesting that misreporting behavior does not systematically relate to subsequent labor market outcomes in the short run.

Second, we observe whether misreporters tend to sign a *forfait jours* agreement more often in the short-run, either at their current firm or elsewhere. We define the outcome variable as a dummy equal to 1 if the individual works under a day contract in 2019. This is an indication of their proximity to day contracts during their period of misreport. As before, our reference group includes workers with hours contracts who report accurately in 2017.

Table 5 shows that workers who misreport in 2017 are 3 percentage points more likely to have signed a *forfait jours* agreement by 2019. This effect is split equally between workers who stay at their firm and those who move, indicating that misreporters' tendency toward day contracts is not conditional on previous working with an hours contract.

We then split our sample by occupation. The *high-skill* sample gathers "high-skill" and "mid-skill" workers while the *low-skill* sample consists of "low-skill manual" and "low-skill non-manual" workers. We find positive effects in both groups, but the effect is much larger among white-collar workers, where *forfait jours* agreements are more common.. Most of low-skilled workers who end up signing an agreement are tertiary sector workers who move to an executive position.

Table 5: Signing a Day Contract in the Short-Run

Dependent Variable:	*Forfait jours* agreement in 2019			
Sample:	*Baseline*		*High-Skill*	*Low-Skill*
Model:	(1)	(2)	(3)	(4)
Misreporter	0.033***		0.053***	0.011***
	(0.005)		(0.012)	(0.004)
Misreporter × Stayer		0.018***		
		(0.003)		
Misreporter × Mover		0.015***		
		(0.003)		
Controls: Age, Sex, Diploma, Part-time				
Occupation	X	X	X	X
Workplace	X	X	X	X
Observations	17,764	17,764	7,048	10,668
R^2 Adj.	0.50	0.52	0.64	0.60

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.*

Note: This table presents OLS estimates of the relationship between being a misreporter in 2017 and signing a *forfait jours* agreement in 2019. The sample consists of 17,764 workers. Groups are defined in Section 3 and Table 1. Occupations correspond to the 2-digit level in the PCS classification (23 levels). The outcome variable is a dummy variable equal to 1 if the individual works under a day contract in 2019. "Stayer" and "Mover" correspond to dummy variables equal to 1 if the individual is, respectively, in the same firm or in a different firm as in 2017. The high-skill and low-skill samples gather all workers whose occupation's 1-digit level is respectively 3 or 4, and 5 or 6. All estimates are relative to workers with an hours contract who report correctly in 2017. Standard errors are heteroskedasticity-robust and reported in parentheses.

Given that misreporters are more likely to sign *forfait jours* agreements in the short run, this suggests they already have some proximity with respect to day contracts. In the last part of the section, we focus on estimating the effects associated with day contracts, leveraging the panel dimension of our data. Specifically, we examine whether the estimated effects differ when we account for workers' misreporting status.

Individual fixed effects are included to control for time invariant unobserved heterogeneity, implying that effects of day contracts are estimated on workers who switch between hours and day contracts during the period of observation. The sample consists of 14,510 workers, and 29,020 observations, with each worker appearing in both 2017 and 2019. Among these workers, 650 switched from hours to day contracts (7.5% of workers initially on hours contracts), while 130 switched in the opposite direction (9.6% of workers initially on day contracts). To identify how the earnings of these switchers changed, we perform linear regression models of the type:

$$Y_{it} = \alpha Day_{it} + \beta Day_{it} * Misreporter_{i2017} + \gamma_i + \delta 1_{t=2019} + \phi X_{it} + \epsilon_{it} \quad (1)$$

with Y_{it} the daily labor earnings of worker i in year 2017 or 2019[10], Day_{it} an indicator variable if worker i holds a day contract in year t, $Misreporter_{it}$ an indicator variable if worker i has an hour contract in year 2017 and misreports it, γ_i a worker-specific fixed effect, $1_{t=2019}$ a dummy variable equal to 1 if the year is 2019, and X_{it} a set of time-varying characteristics. Daily earnings are computed as the ratio between net annual labor earnings from the DADS data and the number of days worked over the year. Daily earnings are calculated as the ratio of net annual labor earnings from the DADS data to the number of days worked during the year. We exclude observations below the 5th percentile and above the 95th percentile to eliminate extreme values, e.g. that may result from very short employment periods.

We focus on full-time workers[11] to avoid our effects on earnings to be contaminated by changes in working time. We start by studying the earnings premium associated with switching from an hours to a day contract or vice versa. To this aim, we do not include the interaction term $Day_{it} * Misreporter_{i2017}$ in the first columns of Table 6. Column 1 shows the results without controls while column 2 controls for workers' occupation and tenure, workplace size and industry. The results indicate that day contracts increase daily earnings by approximately 6 percent compared to hours contracts. The estimates remain stable when controls are added, suggesting that switchers are relatively homogeneous along these dimensions.

[10] We cannot estimate the effects on hours worked as paid hours, as measured in the DADS data, are meaningless for workers with day contracts. The same applies to hourly wages.

[11] Full-time workers are identified in the DADS data through a separate variable from hours worked, allowing us to identify these workers regardless of contract type.

Columns 3 and 4 split the sample by whether workers remain in the same workplace or change workplaces when switching contracts. The effect on daily earnings is significantly larger for workers who change workplaces. Columns 5 and 6 reproduce the baseline specification but exclude workers who switch from day to hours contracts, focusing solely on the more common transition to day contracts. This restriction yields a larger estimated effect on daily earnings, about 7 to 8 percent.

Finally, columns 7-10 replicate the earlier specifications while including the interaction term with misreporters. This allows us to examine whether the effect of switching to a day contract differs for workers who were initially unaware of their contractual arrangement. Stayers who switch from hours to day contract earn 3 percent higher wages, while movers experience almost a 10 percent increase. However The interaction term on misreporters is consistently negative, albeit statistically significant only for movers, and almost offsets the premium for both stayers and movers. This result suggests that workers who initially misreported their contract type experience almost no earnings gains when switching to day contracts. For stayers, the lack of wage gains is possibly simply due to their better working conditions prior to the switch as compared to accurate reporters with hours contracts. However, wide differences in wage gains for movers also raise questions about the long term career trajectories of these workers as compared to non misreporters.

Table 6: Earnings Effects of Day Contracts

Dependent Variable:	Daily Earnings									
Sample:	*Baseline*		*Stayers*	*Movers*	*No "Day to Hour"*		*Baseline*		*Stayers*	*Movers*
Model:	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Day Contract	0.0589***	0.0569***	0.0182*	0.0621***	0.0777***	0.0705***	0.1048***	0.0949***	0.0306**	0.0965**
	(0.0116)	(0.0119)	(0.0099)	(0.0214)	(0.0136)	(0.0134)	(0.0184)	(0.0180)	(0.0148)	(0.0343)
Day Contract × Misreporter 2017							-0.0607**	-0.0540**	-0.0211	-0.0912*
							(0.0262)	(0.0259)	(0.0211)	(0.0496)
Controls and Fixed effects										
Demographics		X	X	X		X		X	X	X
Worker FE	X	X	X	X	X	X	X	X	X	X
Year FE	X	X	X	X	X	X	X	X	X	X
Observations	29,020	28,971	22,633	4,210	28,764	28,715	27,928	27,879	22,509	4,078
R^2 Adj.	0.89	0.89	0.90	0.79	0.89	0.89	0.88	0.89	0.90	0.79

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.*

Note: This table presents estimates from event-study regressions specified in equation 1 using linked REPONSE-DADS panel data between 2017 and 2019. The dependent variable is the log of net annual labor earnings from the DADS datasets divided by the number of days worked over the year. See more details in text. "Day Contract" is an indicator variable equal to 1 if the worker holds a day contract. "Misreporter 2017" is an indicator variable equal to 1 if the worker had an hours contract in 2017 but misreported their contractual arrangement. The baseline sample includes all full-time workers observed in both years (N=16,760). The "Stayers" specifications restrict the sample to workers who remained with the same employer, while the "Movers" ones keep workers who changed employers between 2017 and 2019. The "No Day to Hour" specifications exclude workers who switched from day to hour contracts. Demographics controls include worker occupation, tenure, workplace size, and industry. Worker fixed effects (Worker FE) control for time-invariant unobserved heterogeneity. Year fixed effects (Year FE) control for common time trends. Heteroskedasticity-robust standard errors are reported in parentheses.

6 Discussion

Our research reveals a critical and often overlooked dimension of contemporary labor markets: the growing complexity of working time arrangements and the consequent information asymmetries that emerge. By examining the discrepancies between legal frameworks and workers' understanding of their employment contracts, we uncover a significant phenomenon where approximately 20% of workers misreport their working time arrangements.

The transformation of work towards more flexible and individualized models has created challenges in enforcing labor regulations[12]. Our findings demonstrate that this flexibility is not uniformly understood or experienced across the workforce. The implications of these information

[12] As of 2023, Forfait jours agreements grew from 10% to 17% of the salaried workforce. The increase is equally due to a booming of jobs in the tertiary sector and within-sector dynamics.

gaps are profound. Workers who are unaware of their precise contractual status may inadvertently accept working conditions that deviate from their legal protections. This suggests the need for more transparent mechanisms of communication within workplaces and potentially more robust regulatory oversight to ensure workers are fully informed about their rights and obligations.

Moreover, our research points to the complex ways in which workplace-specific organizations negotiate flexibility. Workers who have limited knowledge about their working time arrangement tend to have higher earnings and wages. We interpret this compensation process as a strategic approach by firms to encourage worker flexibility, often operating in grey areas of labor regulations.

By documenting these employment practices, we aim to provide insights that can help policymakers and labor regulators prevent potential abuses and adapt existing frameworks to the evolving nature of work. Future research should continue to explore these information asymmetries and their broader implications for worker welfare and labor market dynamics.

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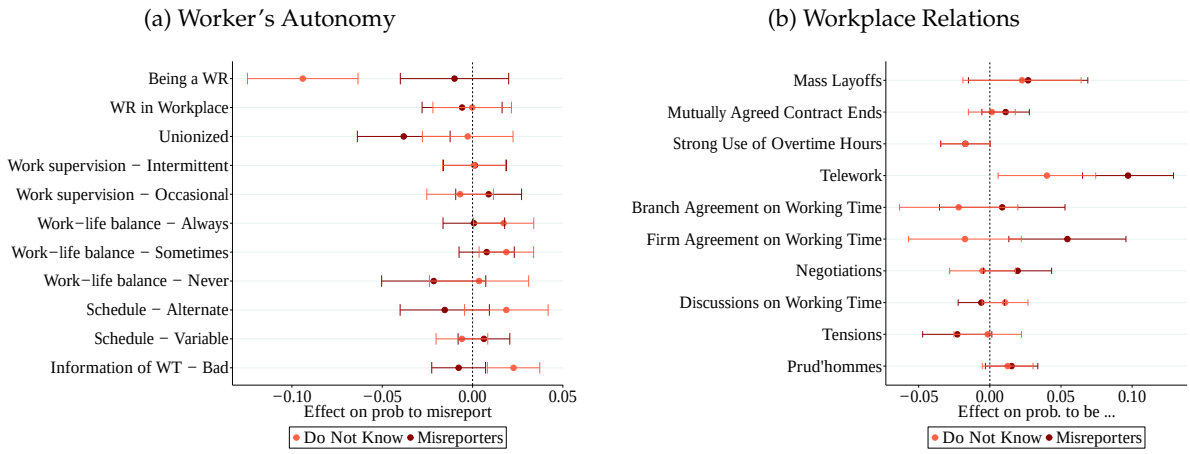
Appendix A Additional Figures and Tables

Figure A1: Workplace Characteristics of Misreporters and Uncertain Workers (Hours Contracts)



Note: This figure presents coefficient estimates and 95% confidence intervals from linear regressions examining the probability of misreporting or being uncertain about their contract status based on workplace variables. Regressions are run independently on each variable (along with all covariates from Figure 2 and an industry fixed effect) using dummies for misreporting, in the first case, or not knowing, in the second case, their contract. Groups are defined in Section 3 and Table 1. All estimates control for demographic and workplace characteristics shown in Figure 2. WR = Worker Representative. WT = Working Time. "Prud'hommes" are French labor courts which handle employment disputes and contract violations. All estimates are relative to workers with an hours contract who report correctly.

Figure A2: Misreporters by Workplace Intensity in Day Contracts

Note: This figure represents the distribution of contract × information status by decile of workplace intensity in workers with day contracts, defined as their share in the workplace. Groups are derived from the combination of information from the REPONSE-17 Workers survey and DADS datasets, and are defined in Section 3 and Table 1. The first column gather workplaces with no day-contract workers.

Table A1: Descriptive Statistics on Main Sample and REPONSE17-Workers

		REPONSE-2017	Sample (Δ in p.p)
Number of workers		28,529	22,867 (80%)
Number of workplaces		5,956	5,539
Forfait jours agreement (%)		35.2	-3.0***
Sex (%)	Female	43.6	-0.1
Age (%)	15-24	4.0	-0.4*
	25-34	22.0	-0.2
	35-44	29.3	+0.6
	45-54	31.3	+0.5
	55+	13.4	-0.5
Occupation (%)	High-skilled	23.1	-2.3***
	Mid-skilled	23.1	+0.8*
	Low-skilled non-manual	25.9	+0.6
	Low-skilled manual	27.8	+0.9*
Earnings in euros 2017 (%)	$<$ 15,000	18.2	-2.3***
	15,000 - 20,000	20.5	-1.3***
	20,000 - 25,000	20.1	+1.2***
	25,000 - 35,000	21.7	+2.2***
	$>$ 35,000	19.5	+0.2
Size of workplaces (%)	11-19	7.4	+0.5*
	20-49	20.2	+1.4***
	50-99	15.4	+0.4
	100-199	15.7	+0.6
	200-499	16.7	+0.1
	$>$ 500	24.6	-2.9***
Part-time (%)		13.3	-1.7***

Note: This table compares characteristics between the final analytical sample and the original REPONSE17-Workers dataset. The first column shows the distribution of individuals in the original dataset across dimensions reported on the left. The second column corresponds to the difference in percentage points between the main and the original sample, with t-test's degree of significance represented by codes: ***: 0.001, **: 0.01, *: 0.05.

Table A2: Characteristics of Misreporters and Uncertain Workers (Hour Contracts)

Dependent Variables:	Misreporter		Uncertain	
Model:	(1)		(2)	
	Estimate	S.E.	Estimate	S.E.
Age	0.004***	(0.000)	-0.004***	(0.000)
Female	-0.025***	(0.009)	0.023***	(0.009)
Occupation - High-Skill	0.219***	(0.019)	-0.041**	(0.020)
Occupation - Mid-Skill	0.031**	(0.013)	-0.077***	(0.001)
Occupation - Low-Skill	0.009	(0.014)	-0.019	(0.014)
Diploma - 5+ yrs HE	0.040*	(0.023)	-0.199***	(0.023)
Diploma - 3 yrs HE	-0.054***	(0.020)	-0.222***	(0.019)
Diploma - 2 yrs HE	-0.034*	(0.018)	-0.210***	(0.017)
Diploma - High School	-0.024	(0.017)	-0.175***	(0.016)
Diploma - Middle School	0.000	(0.023)	-0.108***	(0.022)
Diploma - Professional Certificate	0.004	(0.016)	-0.101***	(0.014)
Diploma - Primary School	0.057*	(0.034)	-0.039	(0.032)
Workplace Size - 20-49	0.017	(0.016)	0.006	(0.015)
Workplace Size - 50-99	0.030*	(0.017)	0.021	(0.016)
Workplace Size - 100-249	0.026	(0.016)	0.033**	(0.016)
Workplace Size - 250-499	0.046**	(0.018)	0.017	(0.018)
Workplace Size - 500+	0.060***	(0.017)	0.029*	(0.016)
Fixed-effects				
Industry	X		X	
Observations	15,767		15,155	
R^2 Adj.	0.05		0.04	

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.*

Note: This table presents coefficient estimates and standard errors from linear regressions examining the probability of misreporting their forfait jours contract status. Two regressions are run on all characteristics simultaneously (along with an industry fixed effect), using dummies for misreporting, in the first case, or not knowing, in the second case, their contract. Forfait jours labels are defined in Section 3 and Table 1. Industries correspond to 13 aggregate groups in the NAF classification. The reference categories are respectively male workers, low-skill manual occupation, no diploma, and workplace size of 11-19 employees. HE = Higher Education. All estimates are relative to workers with an hours contract who report correctly. Standard errors are heteroskedasticity-robust and reported in parentheses. Figure 2 plots the estimates.

Table A3: Earnings and Hours Worked in the Short-Run

Dependent Variables:	ΔEarnings			ΔHours		
Sample:	*Baseline*	*Stayers*	*Movers*	*Baseline*	*Stayers*	*Movers*
Model:	(1)	(2)	(3)	(4)	(5)	(6)
Misreporter	0.006	0.008	-0.029	0.001	0.003	-0.020
	(0.005)	(0.005)	(0.026)	(0.005)	(0.005)	(0.020)
Controls: Age, Sex, Diploma, Part-time						
Occupation	X	X	X	X	X	X
Workplace	X	X	X	X	X	X
Observations	16,760	13,746	3,014	16,752	13,552	3,200
R^2 Adj.	0.43	0.44	0.77	0.49	0.51	0.77

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1.*

Note: This table presents OLS estimates of the relationship between being a misreporter in 2017 and trajectories in earnings and hours up to 2019. Groups are defined in Section 3 and Table 1. Occupations correspond to the 2-digit level in the PCS classification (23 levels). Outcome variables are computed as evolution rates in earnings and hours between 2017 and 2019, i.e. $y_i = (y_{i,2019} - y_{i,2017})/y_{i,2017}$. The variables used are net annual labor earnings and paid annual hours from the DADS data. All estimates are relative to workers with an hours contract who report correctly in 2017. Standard errors are heteroskedasticity-robust and reported in parentheses.

Appendix B Overtime Payment Framework

Consider two comparable individuals, respectively "Not Forfait" (N) and "Fake Forfait" (F) workers. Their hours and earnings are denoted h_i and $e_i = h_i \times w_i$, with $i \in (N, F)$. Suppose that both workers work overtime hours below the 43-hour threshold, i.e. $35 < h_i < 43$, $\forall i \in (N, F)$. Their wage w_i is therefore a weighted average of a common baseline wage Ω and of their overtime wage given the overtime premium x:

$$w_i = \frac{35}{h_i} \times \Omega + \frac{h_i - 35}{h_i} \times \Omega(1 + x)$$

Consider the difference in hours between the two workers $\Delta h = h_F - h_N$, and the normalized difference $\Delta h / h_N$. The difference in wages between the two workers, $\Delta w = w_F - w_N$, can be computed as:

$$\begin{aligned}
\Delta w &= \Omega \times \frac{35 + (h_F - 35)(1 + x)}{h_F} - \Omega \times \frac{35 + (h_N - 35)(1 + x)}{h_N} \\
&= \Omega \times \frac{35(h_N - h_F) - 35(1 + x)(h_N - h_F)}{h_F h_N} \\
&= \Omega \times \frac{35x\Delta h}{(h_N + \Delta h)h_N}
\end{aligned}$$

The normalized difference $\Delta w / w_N$ thus writes:

$$\frac{\Delta w}{w_N} = \frac{\Omega x}{w_N} \times \frac{35}{h_N + \Delta h} \times \frac{\Delta h}{h_N}$$