

# It's a man's world: culture of abuse, #MeToo and worker flows\*

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## Abstract

Sexual harassment and sexist behaviors are pervasive issues in the workplace. Around 12% of women in France have been subjected to toxic behaviors at work in the last year, including sexist comments, moral, sexual or physical harassment, or violence. Such toxic behaviors can not only deter women from entering the labor market, but can also lead them to leave toxic workplaces at their own expense. This article is one of the first to examine the relationship between toxic behaviors and worker flows. We use the #MeToo movement as an exogenous shock to France's workplace norms regarding toxic behaviors. We combine survey data on reported toxic behaviors in firms with exhaustive administrative data to create a measure of toxic behaviors risk for all French establishments. We use a triple-difference strategy comparing female and male worker flows in high-risk versus low-risk firms before and after #MeToo. We find that #MeToo increased women's relative quit rates in higher-risk workplaces, while men's worker flows remained unaffected. This demonstrates the existence of a double penalty for women working in high-risk environments, as they are not only more frequently the victims of toxic behaviors, but are also forced to quit their jobs in order to avoid them.

**JEL codes:** J16, J81, J24, J52.

**Keywords:** Occupational Gender Inequality, Workflows, Sexual harassment, Social Movement.

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# 1 Introduction

Toxic behaviors, sexual harassment and violence are prevalent and serious issues for women in the workplace. For instance, the 2019 AEA Professional Climate Survey in Economics reported that respectively 43% of female respondents had experienced offensive sexual remarks directed at them from another economist. The equivalent statistic was 13% for male respondents.<sup>1</sup> A hostile work environment may have detrimental effects on women's career choices and opportunities, which could explain why women are underrepresented in the economic profession,<sup>2</sup> and in general, in the labor market.

This paper explores the pervasiveness of sexual harassment and what we could call toxic behaviors in the workplace and aims to understand its labor market effect on women. In 2017, the #MeToo movement exposed the existence of a "culture of abuse" in the workplace for women. Starting with several actresses accusing the film producer Harvey Weinstein of rape and sexual harassment in work-related contexts, the #MeToo movement took off worldwide as women shared their experiences of sexual violence in their daily and working life. On the labor market, a "culture of abuse" disproportionately impacting women could prevent them from accessing or pursuing high-paying and prestigious careers. If employers lack evidence to enforce disciplinary action against harassers or prefer to turn a blind eye on the issue, then the only way out for women might be to quit their job. This double penalty – harassment and higher job turnover – could even deter women from entering the labor market or push them into safer and maybe less rewarding jobs. In this paper, we investigate the consequences of this culture of abuse on female workers' flows using the onset of the #MeToo movement as an exogenous shock on social norms regarding violence against women in the workplace.

Our paper is divided in two parts. We first use a representative survey of about

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<sup>1</sup><https://www.aeaweb.org/resources/member-docs/final-climate-survey-results-sept-2019>, last accessed in January 2021.

<sup>2</sup>According to [Bayer and Rouse \(2016\)](#), 56% of PhDs in STEM fields go to women, but it is still less than 33% in economics and further along the road it gets worse, only 14% of Full professors in Economics are women.

11,500 employed French women, which includes a self-administered questionnaire about some instances of sexual harassment and sexist behaviors, to investigate what may affect the likelihood of being harassed in the workplace with a probit model. We then use this prediction in two exhaustive labor market administrative datasets to construct a measure of harassment risk for all establishments in France. We relate this establishment level measure of harassment risk to different types of workers flows for women and men: hire, layoff, termination by agreement and quit.

We then take advantage of the #MeToo shock in France to analyze whether it impacted women's working conditions or toleration of toxic behavior, and thus their worker flows. To do so, we use a triple difference strategy comparing worker flows of women and men before and after #MeToo in high risk versus low risk establishments. To disentangle whether our effects are driven by women or men's worker flows, we also implement a difference-in-difference strategy comparing worker flows in high versus low risk establishments before and after #MeToo.

Using the representative Working Conditions Survey, we find that around 12% of women reported being victim of sexual harassment or suffering from a sexist work environment in the last 12 months in France. We find that women frequently suffer from a variety of toxic behaviors. The women who reported always hearing derogatory remarks or jokes about women are 15 times more likely to be told obscene remarks, 130 times more likely to be made sexual propositions, and 40 times more likely to be physically or sexually assaulted than those who never hear such remarks. Women who report toxic behaviors are also more likely to work in companies with higher male representation and higher male executive or CEO representation. Additionally, women appear to be more at-risk in some specific sectors, such as in the accommodation and catering industry. We also demonstrate that the risk of harassment at the establishment level is correlated with lower hourly wages and narrower gender wage gaps. We also observe a significantly higher relative quit rate for women (compared to men) in high-risk (vs. low-risk) establishments. This corroborates the hypothesis of a double penalty faced by women, who are not only more frequently the victims of toxic behaviors, but

also forced to quit their jobs to avoid it.

This is consistent with a monopsonistic modelization of the labor market where women have a lower elasticity of labor supply than men with regards to working conditions. Such situation can arise if worse working conditions for women are more socially accepted. Discrepancies in working conditions between men and women translate into discrepancies in terms of quit rates. However, if women's quit rate in toxic workplaces is not increasing enough to be unsustainable for their employers, they might lack incentives to change women's working conditions. We then might expect that #MeToo, by changing durably norms of what is acceptable in the workplace for women, might, at least in the short term if nothing else is changing, increase the double penalty. In the longer term, we expect this to push firms to act and improve women's working conditions.

We find that #MeToo resulted in an increase in the relative exit probability of women in high risk establishments. This is mainly driven by an increase in the relative quit probability of women. Our double difference strategy demonstrates that this is because women, not men, change their behavior. We also show that women compared to men in higher risk establishments tend to move more to firms where they face a lower risk of harassment. This suggests that #MeToo increased awareness among women in toxic work environments and, at least in the short term, that their working conditions did not improve sufficiently to prevent them from leaving in higher numbers.

We also find that that the #MeToo effect increases with firm size up to 500-999 employees, at which point it starts to decline. The effect also appears to be stronger in male-dominated sectors, such as construction and vehicle manufacturing, whereas there is no effect in the public sector. We also show that the effect of #MeToo increases women's exit from firms that have a higher risk of all types of toxic behaviors, and that even in firms that have a higher risk of derogatory remarks and jokes about women, we see an increase in women exits following #MeToo.

In this paper, we contribute to two strands of the literature. First, we contribute to the literature that measures the incidence of sexual harassment in the workplace and

their consequences on women. Male-dominated work settings are found to be more prone to the emergence of sexual harassment against women (McLaughlin et al., 2012; Kabat-Farr and Cortina, 2014; Folke and Rickne, 2020). We extend those analyses by looking at more detailed characteristics of workers and firms. We also relate to the literature on compensating pay-differentials (Hersch, 2011; Folke and Rickne, 2020). Similarly to Folke and Rickne (2020), we find that high risk of sexual harassment is associated with lower wages, suggesting that there is no compensation for such harassment. Besides the consequences for mental and physical health (McDonald, 2012), violence against women can have long-lasting effects on their career (Willness et al., 2007; McDonald, 2012; Siddique, 2018). For example, McLaughlin et al. (2017) shows that sexual harassment tends to increase the financial stress of victims by precipitating job changes. Our results do suggest that women tend to quit more than men in establishments that are at the top decile in term of toxic behavior risk.

We also relate to the literature that examines whether activist movements can change the norms and behavior of employees or firms. For instance, Weber et al. (2009) showed that anti-genetic movements in Germany affected the commercialization of biotechnologies by pharmaceutical firms. In particular, our paper also contributes to an emerging literature that focuses specifically on the #MeToo movement (Cheng and Hsiaw, 2020; Lins et al., 2020; Borelli-Kjaer et al., 2021; Lins et al., 2021). Levy and Mattsson (2019) found that, by changing norms, the #MeToo movement increased the reporting of sexual crimes to the police by 13% during the first six months and that this effect persisted for at least 15 months. Focusing more on labor market outcomes, Cici et al. (2020) found that the productivity of female mutual fund managers significantly increased following #MeToo, suggesting that reducing the threat of sexual harassment improves productivity. More similar to us, Bernabe (2020) found that women's propensity to switch jobs was 20% lower in US counties where the tone of news coverage on #MeToo was negative compared to the ones where it was neutral. To the best of our knowledge, we are the first to analyze the impact of #MeToo on worker flows such as hires, quits, and layoffs within firms. In line with this literature, our results suggest

that employees do respond to grassroots activist movements.

The remainder of the paper is structured as follows. Section 2 details the data we use in this paper, the context of #MeToo in France, as well as our findings about the prevalence of sexual harassment in the workplace in France. Section 3 presents a simple model of monopsony discrimination on the labor market to link the issue of toxic behavior in the workplace and gender specific worker flows. Section 4 presents our empirical strategy. Section 5 lays out our results on the impact of #MeToo on women worker flows, and Section 6 concludes.

## 2 Data and Context

### 2.1 Data

We rely on three main data sources. We use the 2016 Working Conditions survey, which interviews a representative sample of around 27,700 employed adults about their working conditions from October 2015 to June 2016.<sup>3</sup> The survey covers a wide variety of topics and is organized into two sections. The first section contains questions regarding professional activities, work organization, health, family life, and career path. The second section is self-administered and includes more intimate questions regarding their personal life, job difficulties, work relationships, and sexual harassment. Around 7% of the sample does not respond to the self-administered section. We use the responses to the sexual harassment questions to ascertain the types of establishments in which women are more likely to report being harassed. To that end, we restrict the sample to employed women between the ages of 18 and 65, yielding to 11,488 observations. We then focus on four main questions:

1. "In the past 12 months, have you experienced any of the following difficult situations at work? One or more people systematically behave with you in the following ways: They insistently make sexual propositions to you"<sup>4</sup>

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<sup>3</sup>Enquête Conditions de Travail 2016

<sup>4</sup>"Au cours des douze derniers mois, vous est-il arrivé de vivre au travail les situations difficiles

2. "In the past 12 months, have you experienced any of the following difficult situations at work? One or more people systematically behave with you in the following ways: Saying obscene or degrading things to you."<sup>5</sup>
3. "In the past 12 months, in the course of your work, have you been physically or sexually assaulted by your colleagues or superiors?"<sup>6</sup>
4. "At work, I hear derogatory remarks or jokes about women"<sup>7</sup>

Following up on the first two questions, further questions were asked to elicit additional information on the perpetrators of those behaviors:(a) "The individual(s) who has(ve) had the described behaviour is (are): one or more persons of your firm" <sup>8</sup> and (b) "The individual(s) who has(ve) had the described behaviour is (are): one or more clients, customers or patients." <sup>9</sup> We analyze behaviors of coworkers or superiors, not of clients. We create a binary variable that indicates whether a person has been subjected to harassment and assigns the value 1 to women who respond yes to questions (1) and (a), or to questions (2) and (a), or to question (3). Additionally, the variable is equivalent to 1 for women who respond "always" or "often" to questions (4). Our variable is set to zero for women who respond "no" to all three of our first questions, or for women who respond "yes" to one of our two initial questions but not to (a), and who respond "sometimes" or "never" to question (4). Sexual harassment, sexual assault, and overtly sexist work conditions are all included in our variable. For the sake of clarity, we will refer to this collection of instances as sexual harassment for the remainder of the study.

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suyvantes ? Une ou plusieurs personnesses se comportent systématiquement avec vous de la façon suivante: Vous fait des propositions à caractère sexuel de façon insistante ?"

<sup>5</sup>"Au cours des douze derniers mois, vous est-il arrivé de vivre au travail les situations difficiles suivantes ? Une ou plusieurs personnesses comportent systématiquement avec vous de la façon suivante: Vous dit des choses obscènes ou dégradantes ?"

<sup>6</sup>"Au cours des douze derniers mois, dans le cadre de votre travail, avez-vous été victime d'une agression physique ou sexuelle de la part de vos collègues ou de vos supérieurs ?"

<sup>7</sup>"A mon travail, j'entends des propos désobligeants ou des blagues sur les femmes"

<sup>8</sup>La ou les personnes ayant eu les comportements décrits est(sont) : une ou plusieurs personnes de votre entreprise.

<sup>9</sup>La ou les personnes ayant eu les comportements décrits est(sont) : un ou plusieurs de vos clients, usagers, patients

Sexual harassment may be difficult to perfectly measure. French law establishes two distinct categories of sexual harassment.<sup>10</sup> It can be serious pressure used to obtain a sexual act, such as layoff blackmail, which does not need to be repeated; or it can be unwanted *repeated* sexual remarks or behaviors. Sexual assault on the other hand is defined as “any sexual act performed with the use of violence, constraint, threat or surprise”.<sup>11</sup> Thus, we may be missing some instances of sexual harassment in which significant pressure was used to elicit a sexual act only once, as none of the questionnaire’s questions pertain to that specific situation. This is, however, the least prevalent form of sexual harassment (Waldo et al., 1998; Fitzgerald and Cortina, 2018).

Respondents may also be hesitant to report toxic behaviors for fear of retaliation or to avoid looking like a victim. While this is unlikely to completely solve this issue, all sexual harassment questions in the 2016 Working Condition Survey are self-administered by respondents, which improves privacy and is likely to reduce under-reporting bias (Cullen, 2020). Moreover, employees are guaranteed anonymity for their responses, and employers are unable to access their employees’ responses. Employees are thus protected from retaliatory firing (Dahl and Knepper, 2021) and, because the results are not made public, there is no chance that the answers to those questions may jeopardize firms’ reputations. These reasons should help to further diminish the under-reporting bias. In addition, as the first two questions do not include the term “sexual harassment,” and previous research has shown that directly asking respondents about their experiences with sexual harassment (rather than simply listing behaviors) results in significantly lower estimates of sexual harassment incidence (Ilies et al., 2003), the under-reporting is likely to be low. Finally, because sexual harassment is included in a broader set of questions about working conditions, it is less salient, possibly reducing social desirability and demand bias.

We also use the MMO database (Declarations of Labor Movement, or *Déclarations des Mouvements des Mains d’Oeuvre* in French) from 2015 to 2018.<sup>12</sup> The MMO database

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<sup>10</sup>art. L. 1153-1 of labor law

<sup>11</sup>Art. 222.21 CP

<sup>12</sup>The DMMO are DARES proprietary data that researchers can access if they follow the protocols outlined [here](#).



is produced by the DARES, the statistical office of the French labor ministry. All establishments with more than 50 employees must complete a survey detailing each entry and exit from the establishment: recruitment on permanent or fixed-term contracts, transfer to another establishment, quits, dismissal for economic or other reasons, retirement, termination by agreement, etc. This dataset not only distinguishes between establishment entries and departures and their motivations, but also provides the sex of the individual affected by the movement. It hence allows us to precisely measure the number of each type of worker flow within an establishment on a daily basis, for both women and men.

Finally, we also use the DADS 2015 (Annual Declaration of Social Data, or “*Déclaration Annuelle des Données Sociales*” in French), an exhaustive database that links employees and employers. The DADS uses forms sent by all private companies for the payment of employer contributions. We first have information on the sector and kind of activity of establishments. Second, firms report the duration of employment, the corresponding wage, and the worker’s occupation for each position. This allows us to measure the gender wage gap, the proportion of women, the number of employees and other pertinent statistics within each establishment in 2015.

## **2.2 Sexual harassment in France**

### **2.2.1 Stylized facts**

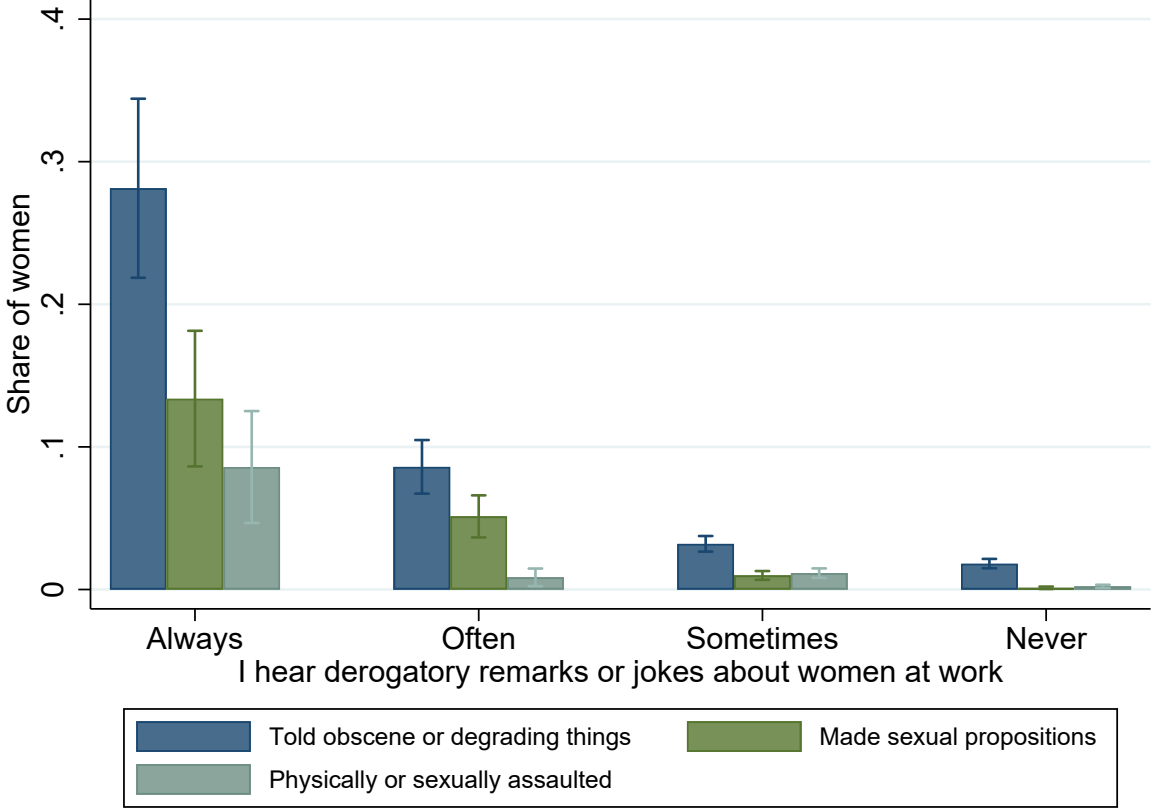
We use the representative sample of 11,488 women from the 2016 “*Conditions de Travail*” to learn more about harassment victims and the nature of their workplace.

Around 12% of women report being victims of sexual harassment or sexist work environments, which means they experienced at least one instance of sexist behavior in the last 12 months. More precisely, 9% constantly or frequently hear derogatory remarks about women. A little less than 1% report being physically or sexually assaulted in the past year. About 3% of employees have been told demeaning or obscene remarks, and 1% have been made persistent sexual advances by coworkers or superi-

ors over the last twelve months.<sup>13</sup>

Sexist and harassment experiences are correlated with each other: women reporting one type of toxic behavior are also more likely to report experiencing other types. Figure 1 illustrates the dramatic disparities in likelihood of reporting various types of sexual harassment based on the level of sexism in the workplace. This is identified by responses to question (4)<sup>14</sup>, regarding the frequency of hearing derogatory remarks about women at work. Compared to women working in non-sexist environments, women in sexist working environments are 15 times more likely to also report being

Figure 1: Share of women experiencing toxic behaviors according to the likelihood to hear derogatory remarks or jokes about women at work



Source: 2016 Working Conditions Survey. Note: The figure reports the share of women experiencing different type of harassment according to their answer on whether they hear derogatory remarks or jokes about women at work.

Reading: 27% of women reporting always hearing derogatory remarks or jokes about women at work also report being told obscene or degrading things.

<sup>13</sup>The perpetrators are more frequently coworkers than clients or customers: 0.26 percent and 0.11 percent of women, respectively, reported being told obscene or degrading comments or being made sexual propositions only by clients, customers, or patients in the preceding twelve months.

<sup>14</sup>"At work, I hear derogatory remarks or jokes about women

told obscene remarks, over 110 times more likely to report being made insistent sexual propositions, and about 40 times more likely to report being physically or sexually assaulted.<sup>15</sup> As such, the fourth question about sexist work environments appears to be an accurate proxy for incidents of sexual harassment and likely compensates for some of the underreporting bias.

Table B.1 compares women who report experiencing harassment to those who do not. We find that women who report toxic behaviors are much more likely to work in companies with a higher male representation in general, a higher male representation in executive position and in CEO position. We observe no statistically significant differences in terms of age, monthly pay, or contract type. Table B.2, displays the mean harassment likelihood by sectors and compares it to the mean for all sectors. It shows that while women are less likely to be harassed in the public administration, education, human health, and social work sectors, they are also much more likely to be harassed notably in the accommodation and catering sector.

## 2.2.2 Harassment risk and women outcomes

A goal of this study is to link the harassment probability obtained from the 2016 Working Conditions survey to all firms in the French administrative dataset. To this end, we compute a measure of harassment risk that we can relate to French administrative datasets by fitting the following probit model on our sample of working-age women from the Working Conditions Survey:

$$\begin{aligned}
P(\text{Sexual}H_{ij} = 1) & \\
&= f\left(\sum_{k=18}^{65} \alpha_{ik} \cdot (\text{Age}_i = k), \sum_k \delta_{ik} \cdot (\text{Job}_i = k), \sum_k \mu_{ik} \cdot (\text{WageQuintile}_i = k), \right. \\
&\quad \left. \sum_k \beta_{jk} \cdot (\text{sector}_j = K), \sum_k \eta_{jk} \cdot (\text{Region}_j = K), \gamma \cdot \text{ShareWomen}_j, \epsilon_{ij}\right) \quad (1)
\end{aligned}$$

where  $\text{Sexual}H_{ij} = 1$  if the woman  $i$  declared having been sexually harassed in firm

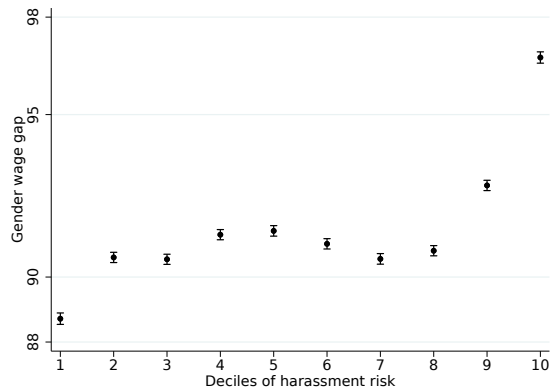
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<sup>15</sup>We define non-sexist workplaces as those in which women never report hearing derogatory remarks or jokes about women, and sexist workplaces as those in which women report constantly hearing such comments.

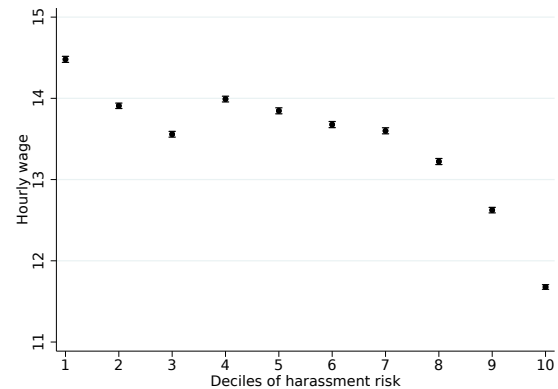
$j$ ,  $WageQuintile_i$  corresponds to her wage quintile,  $Job_i$  to her socio-economic profession,  $ShareWomen_j$  to the share of women in the establishment and  $sector_j$  to the sector of the firm  $j$ .

Figure 2: Harassment of women and pay-gap

(a) When harassment risk is high, the gender gap is lower



(b) But when harassment risk is high, hourly wages (in euros) are also lower



Source: 2016 Working Conditions Survey and DADS 2015.

Note: These figures relates the deciles of estimated harassment risk with the gender pay gap (a) and hourly wages (b).

Reading: In establishments part of the 10th decile of harassment risk in 2015, women earned 97% of the men's wage and workers earn on average a bit less than 12€ per hour.

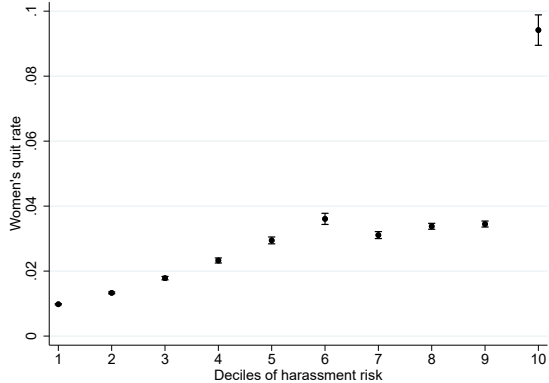
Given that these characteristics are present in both the 2016 Working Conditions Survey and the DADS data, we can use the prediction from this probit model to obtain the probability of harassment risk for each woman in the DADS and aggregate those probabilities to obtain a measure of harassment risk for women at the establishment level. This measures the average probability that women in the establishment have encountered instances of harassment or sexism in the last 12 months. As illustrated in Figure 2a, a higher risk of harassment is associated with a smaller gender wage gap at the establishment level. This can be explained in part by the fact that establishments with a high risk of harassment also pay lower hourly wages, as illustrated in Figure 2b.

Figure 3 examines the relationship between establishments' harassment risk and women's quit rate (i.e., the rate of women leaving a firm in a quarter) or women's relative quit rate in comparison to men. Figures 3a and 3b show that women quit their jobs at a higher rate in high-risk establishments. Both their quit rate and relative quit rate increase significantly for establishments in the last decile of harassment risk. This

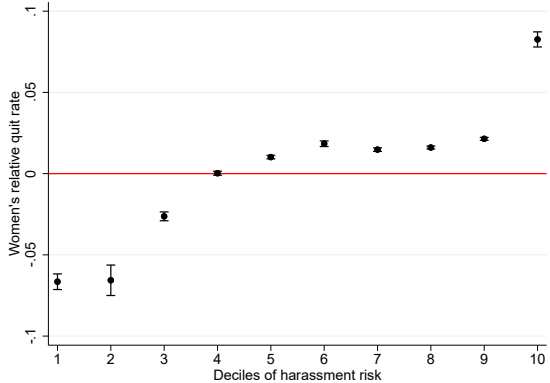
supports the double penalty hypothesis: not only are women subjected to more sexual harassment in these establishments, but they are also forced to quit their jobs in order to escape it.

Figure 3: Harassment of women and quit rates

(a) Women’s quit rate rises sharply in more at risk establishments



(b) Women’s relative quit rate rises sharply in more at risk establishments



Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016.

Note: The figure shows women’s quit rate and women’s relative quit rate according to the decile of estimated harassment risk in the establishment.

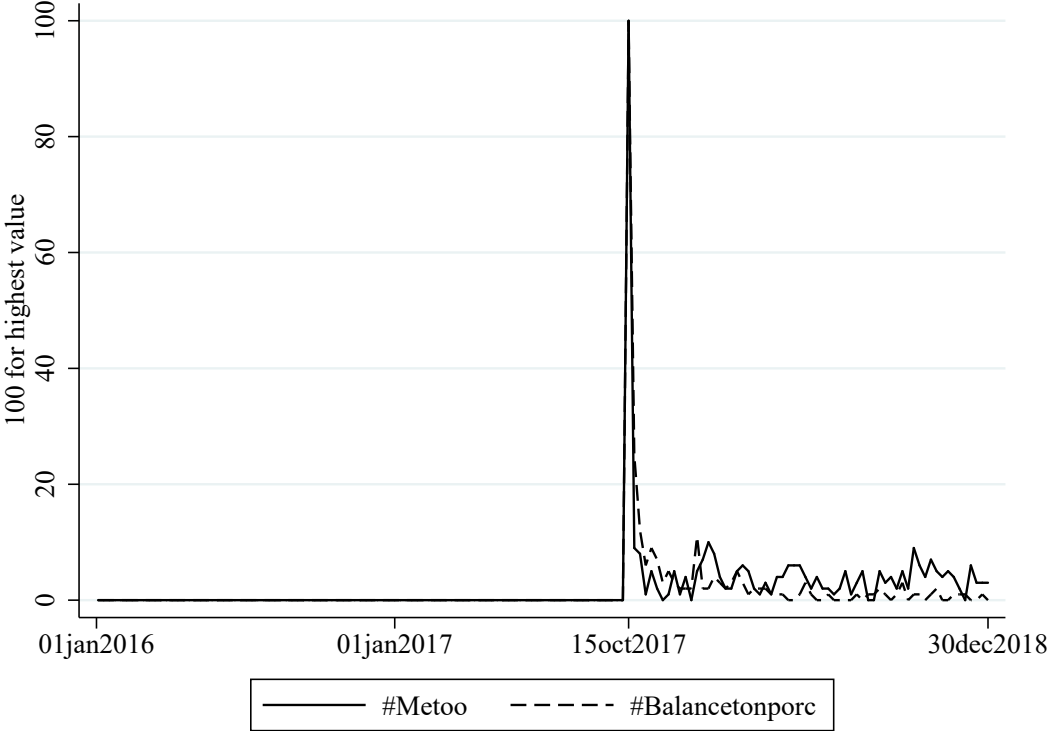
Reading: In establishments in the last decile of harassment risk, women’s quit rate is 9.4% and this rate is about 8 points higher than men’s quit rate.

### 2.3 #MeToo in France

On October 15th, 2017, in response to media reports about Harvey Weinstein, the actress Alyssa Milano re-popularized the 2007 hashtag #MeToo, inviting women to share their stories of sexual violence. This resulted in a flood of anonymous and non-anonymous statements on general and social media platforms, raising public awareness of sexual harassment issues. In France, on October 14th 2017, journalist Sandra Muller created an analogous hashtag, #balancetonporc, which garnered over 931 000 tweets within a year. Its claimed goal was to name and shame perpetrators, but the broader goal was to spark a public conversation about the best ways to eradicate sexual harassment and encourage victims to speak out. Along with condemning harassers, what was denounced was a chronic culture of abuse in some instances, with the institutions responsible with policing it remaining silent or even sometimes protecting harassers.

The #MeToo and #balancetonporc phenomenons were very strong and generated overnight an important reckoning about sexual harassment issues in the workplace in most developed countries. Figure 4 depicts the weekly frequency of Google searches in France for #MeToo and #balancetonporc between 2016 and 2018. Beginning on October 15th, 2017, searches rose considerably, having been virtually non-existent earlier. In particular, there were not already ongoing discussions on related topics if we look at the time prior to the hashtag breakout. In Figure A.1 in Appendix, we can see the identical spike on October 15th for google searches regarding sexual harassment (harcèlement sexuel"), providing more evidence for the exogeneity of the #MeToo shock.

Figure 4: Google searches for "#MeToo" surged after October 2017



Source: Google Trends.

Note: The results reflect the proportion of searches for the "#MeToo" keyword in a specific region and time period, relative to the region with the highest usage of that keyword (value of 100). Thus, a value of 50 means that the keyword was used half as often in the region concerned, and a value of 0 means that there is insufficient data for that keyword.

### 3 An illustrative model of wage and working conditions gender gap

We develop in this section an illustrative model of monopsonistic discrimination to explain why in some establishments there might be wage and working conditions gender gaps and why it can lead to discrepancies in terms of worker flows for men and women. Understanding the links between the gender gaps in working conditions and worker flows is important to comprehend the double penalty associated with gendered toxic behaviors and how #MeToo might impact the labor market by moving the needle toward a lower acceptability of toxic behaviors in the workplace.

This model is very close to the job-to-job search models of [Burdett and Mortensen \(1998\)](#), [Manning \(2003\)](#) and [Barth and Dale-Olsen \(2009\)](#). There are two types of labor inputs  $j = 1, 2$  that are in two completely segregated labor markets. We focus on a representative employer.

At any moment, the number of employees of type  $j$  hired  $H^j(w^j, x^j)$  is an increasing function of the wage  $w^j$  and the working condition  $x^j$  and the fraction of the employer's stock of employees that leaves the firms over the same period  $q^j(w^j, x^j)$  is a decreasing function of the same variables.

As it is customary in these models, we assume that while quits are proportional to the number of employees, the number of hires is, by an assumption of random matching, a function of  $w^j$  and independent of  $L^j$  the stock of employees of type  $j$  that are employed.

In the steady state,  $L^j$ , the labor supply of employee of type  $j$ , is :

$$L^j = \frac{H^j(w^j, x^j)}{q^j(w^j, x^j)} \quad (2)$$

Let  $\lambda^j$  be the probability to receive a job off for an employee of type  $j$ . Let also  $F^j(w^j, x^j)$  be the endogenously determined job offer cumulative distribution function and  $\delta^j$  be the exogenous separation rate of an employee of type  $j$ .

The probability that an employee of type  $j$  leave is equal to the exogenous sepa-

ration rate plus the probability of receiving a job offer that is superior in wage and working condition to the actual position:

$$q^j(w^j, x^j) = \delta^j + \lambda^j(1 - F^j(w^j, x^j)) \quad (3)$$

This also means that at any moment the differential leave rate between employees of type 1 and 2 ( $q^1(w^1, x^1) - q^2(w^2, x^2)$ ) is the sum of the difference between their exogenous leave rates and their probability of receiving a job offer that make them better off.

Focusing now on the hiring function,  $\lambda^j$  is also the probability for an unemployed of type  $j$  to receive a job offer and we have  $F(b^j, a^j) = 0$  where  $b$  and  $a$  are reservation wage and working condition of unemployed workers. We assume that employee do not make job offer below  $(b, a)$ . Let  $G(w^j, x^j)$  be the cumulative distribution function of workers over job offers, we have:

$$H^j(w^j, x^j) = \lambda^j \frac{U^j}{M} + \lambda^j G(w^j, x^j) \frac{N_j - U^j}{M} \quad (4)$$

where  $U^j$  is the number of unemployed worker of type  $j$ ,  $M$  is the number of firms and  $N_j$  is the labor force of employee of type  $j$ . At any moment, the representative firm is hiring all unemployed workers willing to work that she can (as there are some frictions) and all the employed workers she can make better off (modulo some frictions as well). In this context, the steady state unemployment for employees of type  $j$  is:

$$\frac{\delta^j}{\delta^j + \lambda^j}. \quad (5)$$

Considering (4) and that in the steady state flows in and out employment should be equal, the labour supply of group  $j$  facing each firm is:

$$L^j(w^j, x^j) = \frac{\delta^j \lambda^j}{[\delta^j + \lambda^j(1 - F^j(w^j, x^j))]^2} \cdot \frac{N^j}{M} \quad (6)$$

The profit of an employer is  $R(L^1(w^1, x^1), L^2(w^2, x^2)) - L^1.(w^1 + x^1) - L^2.(w^2 +$



$x^2$ ) where  $R(\cdot)$  is the revenue function, so that, if we assume that the two types of employees have the same marginal revenue product  $p$ , the first order condition for the wage and working condition is:

$$(p - (w^j + x^j)) \frac{\partial L^j(w^j, x^j)}{\partial (w^j + x^j)} - L^j = 0 \quad (7)$$

In this monopsonistic model, the wage is then equal to the marginal revenue product times a markup that depend on  $\epsilon^j$ , the elasticity of labour supply with regard to the quality of the job  $(w^j, x^j)$  of type  $j$  facing the firm (as a reminder,  $\epsilon^j = \frac{(w^j + x^j)}{L^j(w^j, x^j)} \cdot \frac{\partial L^j(w^j, x^j)}{\partial (w^j + x^j)}$ ).

$$p = \frac{1 + \epsilon^j}{\epsilon^j} (w^j + x^j) = \omega^j (w^j + x^j) \quad (8)$$

The quality of job gap (wage and working condition) between type 1 and type 2 workers is then increasing in the ratio of the elasticity of labour supply of group 2 relative to group 1 :

$$\frac{(w^2 + x^2) - (w^1 + x^1)}{w^1 + x^1} = \frac{\omega^2}{\omega^1} - 1 \quad (9)$$

This simple model then explains that some workplace are different for men and women in terms of wage and working condition because they face differential elasticity of labour supply for men and women. Crucially, as the gender wage gap increases and/or the working condition gap worsen, the differential quit rate ( $q^1(w^1, x^1) - q^2(w^2, x^2)$ ) should increase as well.

In our context, it means that we expect the difference between men and women quit rates to widen as harassment becomes a bigger issue if this is not compensated by higher wage or better working condition. This is what we observe in Figure 3b. It also points out to a more counter-intuitive effect of Metoo in the short term. At fixed wage and working condition, an increase of the relative quit rate of women would signal an *empowerment*, i.e. a lower acceptability of toxic behavior in the workplace. It would mean that the elasticity of women labor supply is increasing and that monopsony discrimination is decreasing as a result.

## 4 Empirical Strategy

This paper examines whether the increased visibility of harassment issues in the aftermath of #MeToo in France in 2017 altered women’s working conditions, particularly in firms with a high risk of harassment. As demonstrated in Section 2.3, #MeToo in France provides an exogenous shock for examining a shift in norms regarding toxic behaviors at work.

To examine the impact of #MeToo on women’s worker flows, we employ a triple difference strategy in which we compare women’s relative work movement probabilities (in comparison to men’s) before and after MeToo in high- and low-harassment risk establishments. A double difference strategy involving men in the same establishment as a control group would assume that men are unaffected by the #MeToo movement. However, if firms punish sexual harassment more severely in the aftermath of MeToo, or harassers are less likely to act, using men as a control group could bias our findings. We thus estimate the following equation:

$$Y_{igt} = \beta_1.HarrassFirm_i \times MeToo_{gt} + \omega_{ig} + \delta_{it} + \mu_{gt} + \epsilon_{igt} \quad (10)$$

where  $Y_{igt}$  is the quarterly probability of at least one exit/entry of a certain type (quit, lay-off, termination by agreement, hire, ...) in establishment  $i$  for gender  $g$  in quarter  $t$ .  $MeToo_{gt}$  is a dummy equal to 1 when  $t \geq 2017q4$  and gender is female and  $HarrassFirm_i$  is equal to 1 for establishments which are in the last decile in terms of harassment risk.  $\omega_{ig}$ ,  $\delta_{it}$  and  $\mu_{gt}$  are a set of fixed effects that control respectively for establishment gender policy, establishment specific time trends, and national gender specific trends. Our coefficient of interest is  $\beta_1$ . It measures the relative impact of the #MeToo movement on the probabilities of women and men’s work flows in high harassment risk compared to low harassment risk establishments. The identification of the coefficient of interest rests on the hypothesis that without #MeToo, the relative work flows of women in high-risk establishments would have evolved similarly to those in low-risk establishments.

To disentangle whether the observed changes are due to changes in women’s worker

flows, men’s worker flows, or both, we also employ a difference-in-difference strategy, comparing women’s (respectively men’s) worker flows in high-risk establishments to those of women’s (respectively men’s) worker flows in low-risk establishments. As a result, we estimate the following equation independently for women and men:

$$Y_{it} = \beta_2.HarrassFirm_i \times MeToo_t + \omega_i + \delta_t + \epsilon_{it} \quad (11)$$

where  $Y_{it}$  is the quarterly probability of at least one exit/entry of a certain type for females (resp. males) in establishment  $i$  and time  $t$ .  $MeToo_t$  equals 1 when  $t \geq$  last quarter of 2017 and  $HarrassFirm_i$  equals 1 when the firm is in the last decile of harassment risk. we also include establishment fixed effects,  $\omega_i$ , and quarter fixed effects,  $\delta_t$ .

## 5 Results

### 5.1 Effects of #MeToo on workers flows

Table 1 presents the results of the estimation of equation (10) on the effect of the #MeToo movement on women’s relative work flows. We find a positive and statistically significant change in the relative exit probability of women from establishments with a high risk of harassment (column 2). This effect is primarily due to the fact that women compared to men quit their jobs at a higher rate in high harassment risk establishments than in low harassment risk establishments, as illustrated in column 4. Women’s relative quit probability increases by nearly two percentage points in high-risk establishments compared to low-risk establishments. This means that the shift in norms sparked by the #MeToo movement appears to have had the greatest impact on women’s decision to flee from toxic workplaces, reinforcing the double penalty of women having to quit their jobs to escape toxic behavior. If #MeToo had resulted in an increased awareness on the part of men or firms, we might have expected a relative decrease in women’s exits and layoffs in high-risk establishments compared to low-risk establishments. Men would be either harassing less (improving working con-

ditions for women) or firms punishing them more (by laying them off more compared to women). Those results are consistent with a study by [Idås et al. \(2020\)](#), conducted in Norway shortly after #MeToo, which found that victims’ most common reactions were to change jobs or consider doing it.

Table 1: Triple difference estimation of women’s relative workflows in high-and low-risk harassing establishments before and after #Metoo (Equation (10))

	(1)	(2)	(3)	(4)	(5)
	Entry	Exit	Termination by agreement	Quit	Layoff
$HarrassFirm_i \times MeToo_{gt}$	0.002 (0.006)	0.032*** (0.007)	0.005 (0.006)	0.018** (0.007)	0.008 (0.007)
<i>Observations</i>	619,320	619,320	619,320	619,320	619,320
$R^2$	0.70	0.68	0.66	0.71	0.69

Note: The table shows the OLS-estimated coefficients from Equation (10) for different types of movements. Clustered standard errors at the establishment level are presented in parentheses. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Reading: After Metoo, the quarterly relative probability that a woman exits the establishment compared to men has increased by 3.2 points in high-risk establishment in 2016 compared to lower-risk establishment.

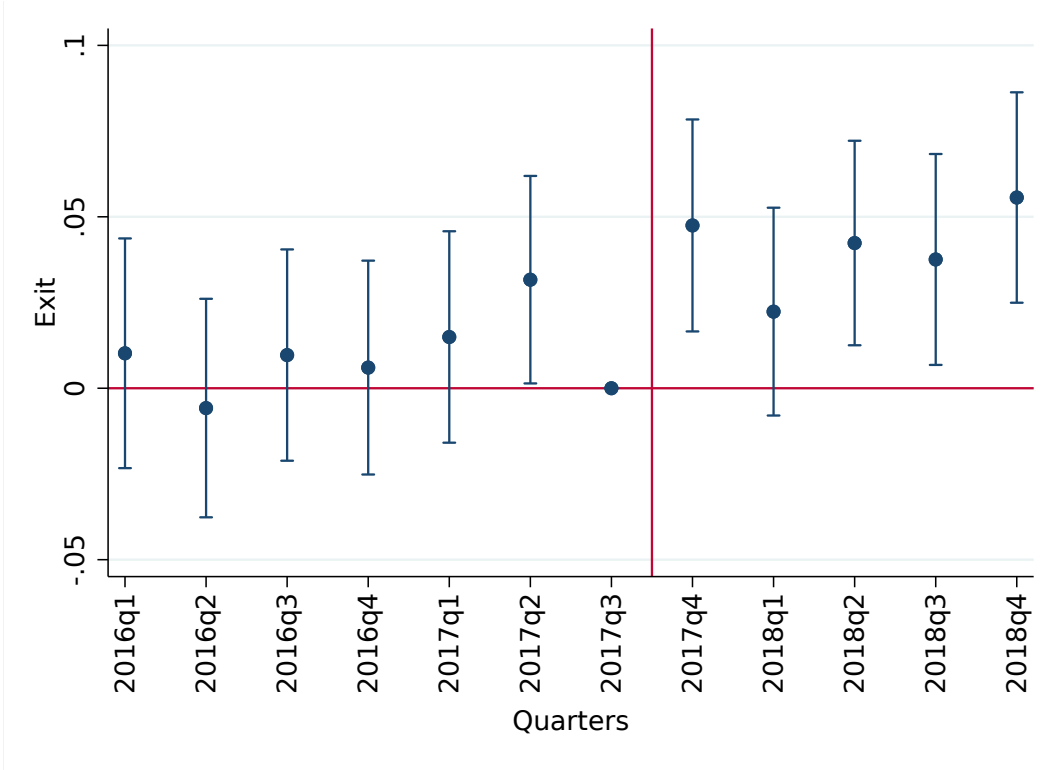
## 5.2 Dynamic effects of #MeToo on workers flows

Figure 5 presents the dynamic effects on the relative quarterly probability of exit for women in high-risk establishments after October 2017 (2017q3). Women’s relative probability of exiting high-risk establishments increases significantly after #MeToo. This is consistent with an empowerment scenario in which women become more sensitive of their unfavorable working conditions and decide to leave. Additionally, there are no evidence of divergence between the two groups of women prior to #MeToo, which supports the identification hypothesis.

There is one notable exception in the second quarter of 2017, in which there appears to be a spike just prior to the #MeToo movement. As shown in Figure E.1, this is entirely driven by terminations by agreement, which are negotiated termination of open-ended

contracts. Although we do not have anecdotal evidence, we believe it might be due to some exits that are retroactively recategorized as termination by agreement because of #MeToo.<sup>16</sup> We do not observe such spike when using monthly flows in Figure 10.

Figure 5: Dynamic effects on the relative quarterly probability of exit



Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016.  
 Note: The figure plots the coefficients  $\beta_{gk}$  obtained with the OLS estimation of equation  $Y_{igt} = \sum_{k=-7}^4 \beta_{gk} \cdot HarrassFirm_i \times women_g \times \mathbf{1}\{t = k\} + \omega_{ig} + \delta_{it} + \mu_{gt} + \epsilon_{igt}$  and their 95% confidence intervals.

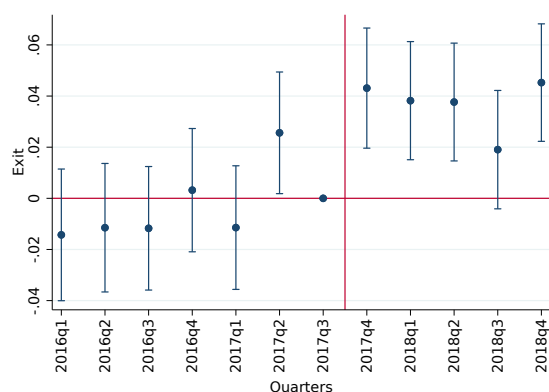
Figures 6a and 6b clearly show that the increased exit probability is due to women’s increased exit rate from high-risk establishments in the aftermath of #MeToo, while men’s exit rate appears relatively unaffected.

We also verify whether women move to firms with less toxic behaviors after #MeToo. Using the DADS, we build a database with the departure and arrival establishments for each worker outflow from 2016 to 2018. Using the same probit model as in equation 1, we then compute an harassment risk for each establishment from 2016 to 2018 and merge this information with the previous database. We then estimate equation 10, ex-

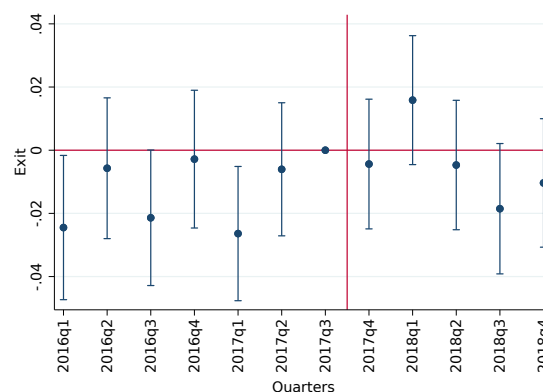
<sup>16</sup>Some exits might have originally been lay-offs targeting harassed women and contested in the court by these women. The shock of #MeToo could have pushed employers to offer an attractive termination by agreement instead to avoid further litigation. These exits are dated to the original date of the lay off before #MeToo but not when the agreement was reached.

Figure 6: Dynamic effects for equation 11

(a) Women's exit probability in high vs low risk establishments



(b) Men's exit probability in high vs low risk establishments

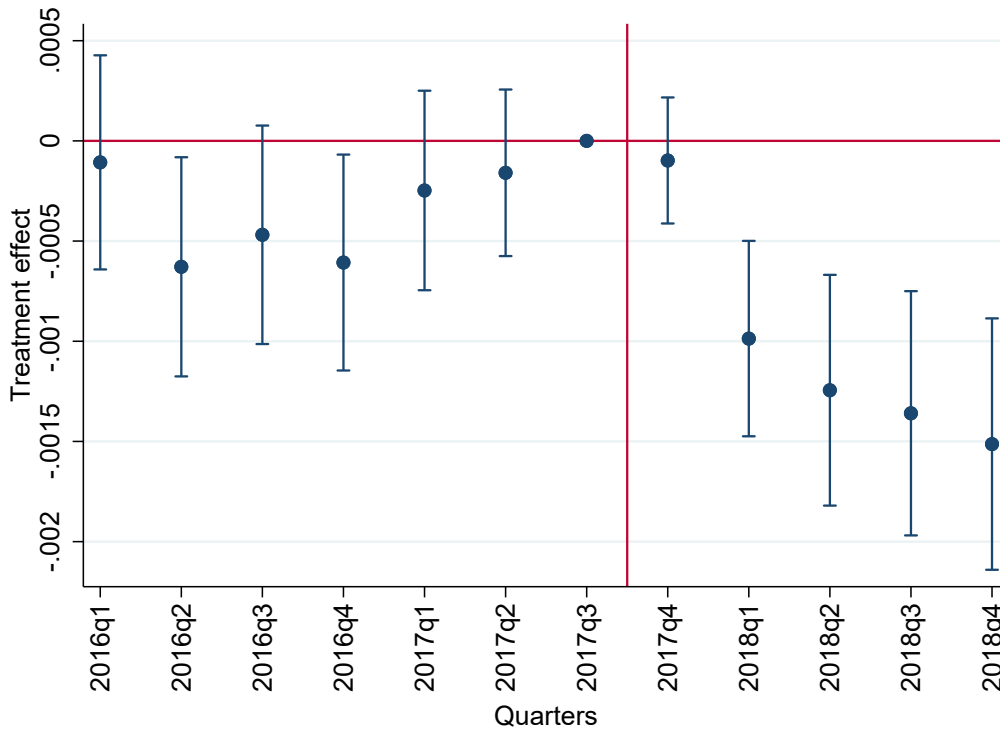


Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016.

Note: The figure plots the coefficients  $\beta_{gk}$  obtained with the OLS estimation of equation  $Y_{it} = \sum_{k=-7}^4 \beta_{gk} \cdot \text{HarrassFirm}_i \times \mathbf{1}\{t = k\} + \omega_i + \delta_t + \epsilon_{it}$  and their 95% confidence intervals on men and women worker flows.

cept our dependant variable becomes the harassment risk in the arrival establishment for outflows. As shown in figure 7, after #MeToo, women compared to men in higher risk establishments tend to move more to firms where they face a lower risk of harassment. This seems to confirm our hypothesis that #MeToo led to an empowerment of women, following which they decided to quit toxic firms to move to lower risk establishments. Table C.1 presents the static estimation results and shows that in high risk establishments, and relative to men, after #MeToo, women moved on average to establishments that had a diminished harassment risk by 0.07 percentage points compared to women in establishments with low harassment risk. Said differently, this means that after #MeToo, women who were potentially more exposed to toxic behaviors seem to leave their current establishment to start working in establishments with a lower level of harassment.

Figure 7: Dynamic effects on the harassment risk in destination firms for outflows



Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016-2018.

Note: The figure plots the coefficients  $\beta_{gt}$  obtained from the OLS estimation of equation (10) where the outcome variable is the harassment risk in the destination firm for outflows.

### 5.3 Heterogeneity of the effects of #MeToo on workers flows

Figures D.1 to D.3 investigate the heterogeneity of the effect of #MeToo on worker flows. Figure D.1 shows that the effect on the probability of at least one exit is greater in establishments with a male CEO than in establishments with a female CEO, although the difference is not statistically significant given the large standard error for the female CEO interaction coefficient due to the small number of establishments with a female CEO. When we examine the effect in relation to establishment size in Figure D.2, we observe an inverse u-shaped relationship. The effect on exits appears to increase as the establishment's size goes up to 500-999 employees, but then declines and becomes insignificant for establishments larger than 1,000 employees. This could be explained by the fact that women can avoid sexual harassment in very large establishments by switching jobs within the same company or because their bigger human resources department is better equipped to deal with the occurrence of toxic behaviors. Finally, looking at the heterogeneity by sector in Figure D.3, we observe that the effect on the

relative exit probability is greater in male-dominated sectors such as construction and manufacturing of transportation vehicles. We observe however a strong negative effect in the information and communication sector, which contains the audio-visual and film industry. As this was the sector under the spotlight during #MeToo, its consequences on the labor market within it might be harder to comprehend. It is however beyond the scope of this paper to try to disentangle the mechanisms behind the effects in this sector in particular. Notably, the effect on exits is non-significant in the French public sector, where women are less likely to be harassed and where civil servants are guaranteed their jobs for life and where it may thus be more cost effective to request a transfer than to lose such a status.

In Tables D.1 to D.4, we examine how the #MeToo movement affected women's work flows differently depending on the type of toxic behavior considered. We classify the level of risk for toxic behaviors in firms using questions described in 2.1 separately, that is the level of risk for i) obscene or degrading comments, ii) insistent sexual propositions, iii) physical or sexual assaults, and iv) derogatory remarks or jokes about women at work. For all of these classifications, we observe an increase in women exit probability following #MeToo. Interestingly, we see a significant increase in quits following #MeToo in firms where women are frequently or always subjected to derogatory remarks or jokes about women. This demonstrates the powerful effect that jokes and derogatory remarks can have on women's labor market outcomes, indicating that firms and policymakers should not overlook the issue of hostile work environments.

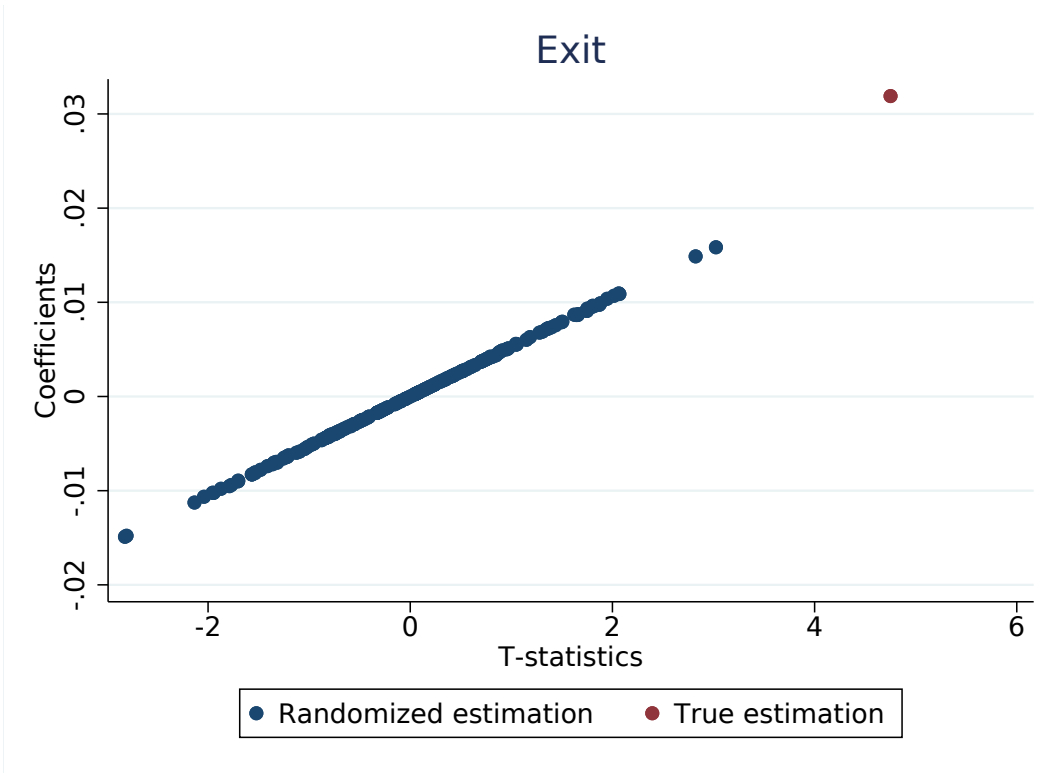
## 5.4 Robustness

As a robustness check, we perform a randomisation inference procedure where we randomise both i) the date of the shock and ii) being in the last decile of harassment risk for an establishment. We thus generate 200 placebo treatment statuses distribution and re-run equation (10) on them. The resulting distribution of estimated coefficients for exits is presented in Figure 8 and provides additional support for our main findings. The majority of randomized estimation coefficients are close to zero and non-significant;



and they are all significantly different from the true estimation coefficient.

Figure 8: Randomisation inference results for exit

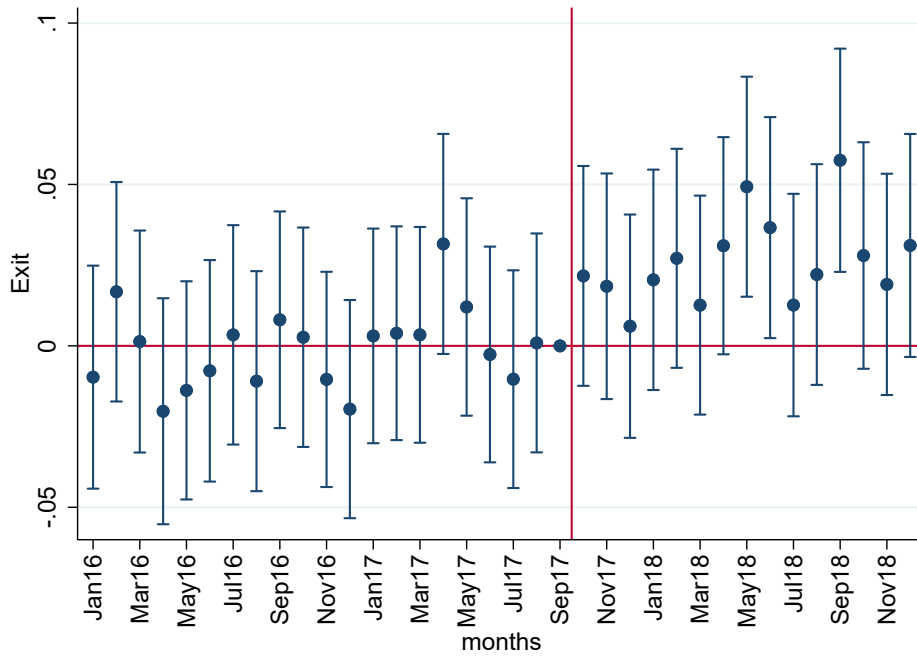


Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016-2018.

Note: The figure plots the coefficients  $\beta_{gt}$  obtained from the OLS estimation of equation (10) for 200 random distributions for  $HarassFirm_i$  and  $Metoo_{gt}$  and compares it to the “true” coefficient in red.

We also run the same regression as in equation 10, but this time using the log of the ratio of worker flows to total workers in the establishment as the outcome. We obtain similar results as shown in Table E.1. Alternatively, we use the monthly probability of each flow rather than the quarterly probability and find very similar results as shown in Table E.2 and Figures 9 and 10. We prefer the quarterly specification in order to average out idiosyncratic disturbances and to maximize our statistical power at each estimation point.

Figure 9: Dynamic effects on the relative monthly probability of exit

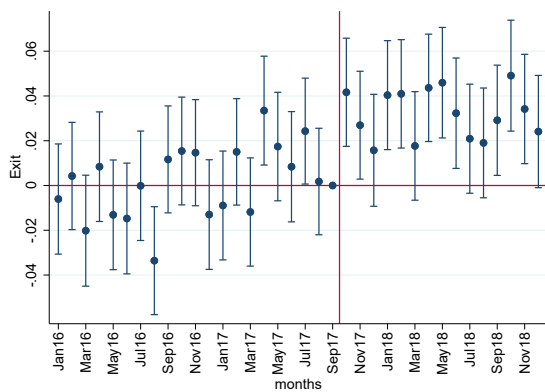


Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016.

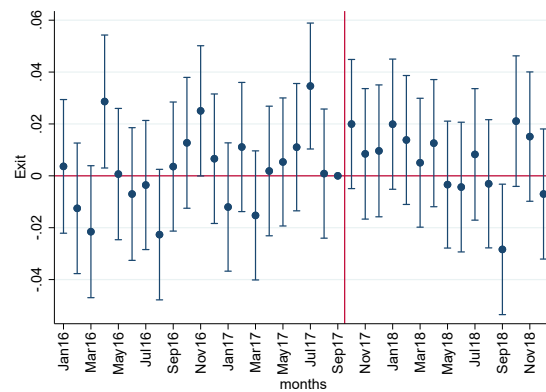
Note: The figure plots the coefficients  $\beta_{gk}$  obtained with the OLS estimation of equation  $Y_{igt} = \sum_{k=-21}^{14} \beta_{gk} \cdot HarrassFirm_i \times women_g \times \mathbf{1}\{t = k\} + \omega_{ig} + \delta_{it} + \mu_{gt} + \epsilon_{igt}$  and their 95% confidence intervals.  $Y_{igt}$  is monthly and not quarterly.

Figure 10: Dynamic effects for equation 11 at a monthly frequency

(a) Women's monthly exit probability in high vs low risk establishment



(b) Men's monthly exit probability in high vs low risk establishment



Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016.

Note: The figure plots the coefficients  $\beta_{gk}$  obtained with the OLS estimation of equation  $Y_{it} = \sum_{k=-21}^{14} \beta_{gk} \cdot HarrassFirm_i \times \mathbf{1}\{t = k\} + \omega_i + \delta_t + \epsilon_{it}$  and their 95% confidence intervals on men and women worker flows.

## 6 Conclusion

Toxic behaviors and violence against women can be serious workplace issues, frequently resulting in a double penalty for women forced to change jobs as a result of this situation. The #MeToo movement brought these issues to light and sparked heated debates in the hope of modifying workplace and societal attitudes and behaviors.

We study the impact of #MeToo on workplace behaviors by conducting an event analysis on worker flows in French establishments. Worker flows are a proxy for the quality of working conditions, and their evolution for women and men following #MeToo can reveal a great deal about the movement's impact on women's working conditions and, more broadly, on the consequences of violence against women in the French labor market.

Our results provide evidence that the #MeToo movement did contribute in increasing women's awareness and will to avoid toxic behaviors in the workplace, resulting in an increase of women's quit rate compared to men in establishments that had a high risk of toxic behaviors. We do not see evidence that #MeToo significantly improved firms' or men harassers' accountability, implying that this social movement did not appear to have altered the norms surrounding the "culture of abuse" that predominates in some workplaces, at least at the medium-run. This demonstrates, however, that a social movement can still contribute to raising awareness and pushing women out of toxic situations where they would have remained for longer without it.

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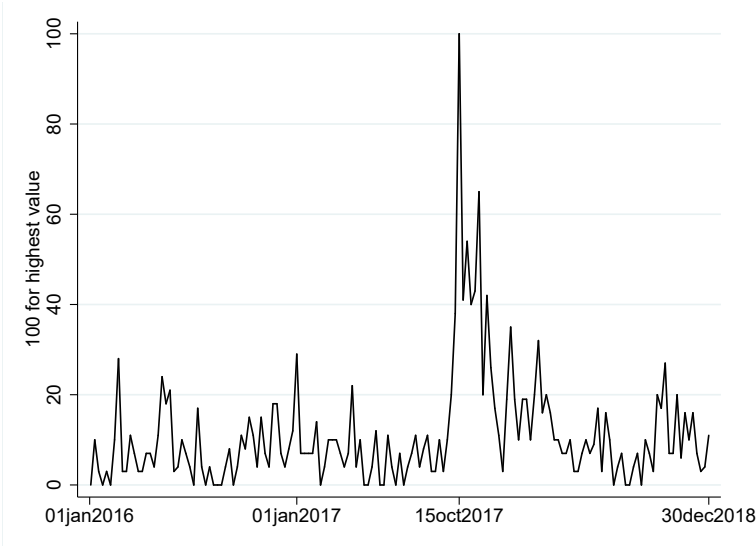
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# Appendices

## A Google search trends for "harcèlement sexuel"

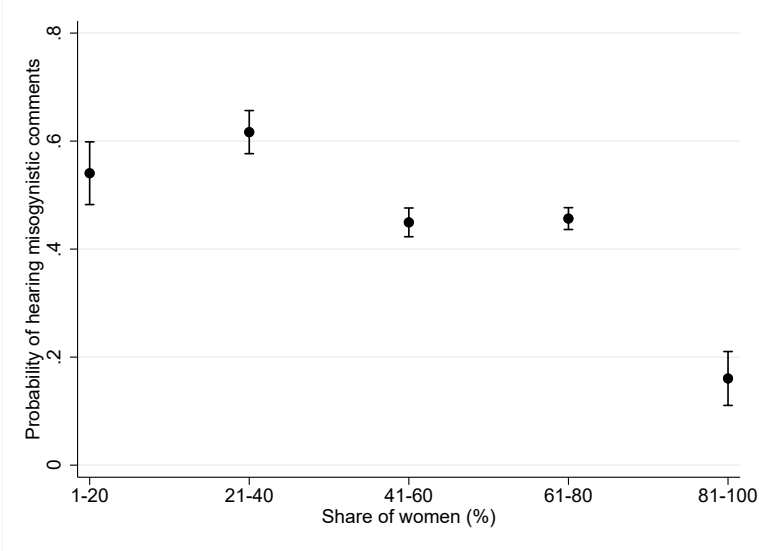
Figure A.1: Google searches for "harcèlement sexuel" surged after October 2017



Source: Google trends.

# B Additional descriptive statistics

Figure B.1: Probability of hearing misogynistic comments by share of women in the firm



Source: 2016 Working Conditions Survey & DADS 2015.

Note: The figure plots the average probability of hearing misogynistic comments by share of women in the firm and 95% confidence intervals.



Table B.1: Descriptive Statistics

	Not Harassed	Harassed	Difference
Age	41.105	40.866	0.239
Monthly income	1621.144	1569.425	51.719
Income quintile	2.400	2.357	0.043
Full time	66.896	75.532	-8.635
Long-term contract	86.187	92.245	-6.058
Private sector	68.831	74.162	-5.331
Share of women	65.600	57.145	8.455***
Share of CEO women	39.593	33.794	5.799*
Share of men executives	51.688	58.122	- 6.434**
Observations	6,479	851	7,330

Source: 2016 Working Conditions Survey, DADS 2015.

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . This table reports the difference between the mean of each group. We also report whether the difference is significant with a two-sample t-test.

Table B.2: Descriptive Statistics - Sector

Sector	Harassment likelihood
Mean	11.4
Other service activities	8.9
Public administration, education, human health and social work	8.7***
Scientific and technical activities; administrative and support services	10.9
Real estate activities	19.8
Financial and insurance activities	15.7
Information and communication	12.2
Accommodation and catering	22.1*
Transport and storage	16.2
Trade; repair of automobiles and motorcycles	12.6
Construction	16.9
Extractive industries, energy, water and pollution control	45.9*
Other industrial product manufacturing	10.3
Manufacture of transport	26.8*
Manufacture of electrical, electronic and computer equipment	10.0
Food, beverage and tobacco product manufacturing	12.7
Agriculture, forestry and fishing	10.7

Source: 2016 Working Conditions Survey, DADS 2015.

Note: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . This table reports whether the difference between the mean of each group and the mean for the full sample used in our empirical analysis is significantly different using a two-sample t-test. P-value for "Accommodation and catering" is 0.053 and p-value for "Extractive industries, energy, water, waste management and pollution control" is 0.099.

Table B.3: Descriptive Statistics - Occupation

Occupation	Harassment likelihood
Mean	11.4
Agricultural workers	14.1
Unskilled workers	13.2
Skilled workers	18.3*
Direct service personnel	13.9
Commercial workers	13.8
Administrative employees of companies	10.1
Public servants	10.0
Foremen and supervisors	3.8***
Technicians	14.1
Intermediate administrative and commercial professions in companies	14.3
Intermediate occupations in education, health, public service	8.4**
Company executives	11.4
Public service executives, intellectual and artistic professions	10.1

Source: 2016 Working Conditions Survey, DADS 2015.

Note: \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . This table reports whether the difference between the mean of each group and the mean for the full sample used in our empirical analysis is significantly different a two-sample t-test.

## C Additional static results

Table C.1: Triple difference estimation of women relative to men harassment risk in destination firms for outflows (Equation (10))

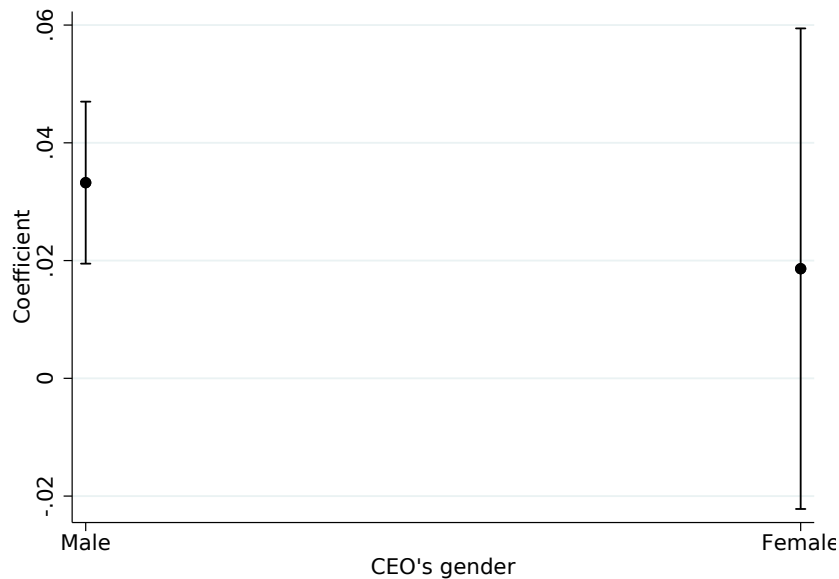
Harassment risk in destination firm	
$HarrassFirm_i \times MeToo_{gt}$	-0.0007*** (0.0002)
<i>Observations</i>	9,142,080
$R^2$	0.89

Note: The table shows the OLS-estimated coefficients from Equation (10). The dependant variable is the harassment risk in destination firms for outflows. Clustered standard errors at the establishment level are presented in parentheses. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Reading: After #MeToo, in high risk establishments, and relative to men, women moved on average to establishments that had a diminished harassment risk by 0.07 percentage points compared to women in establishments with low harassment risk.

## D Heterogeneity

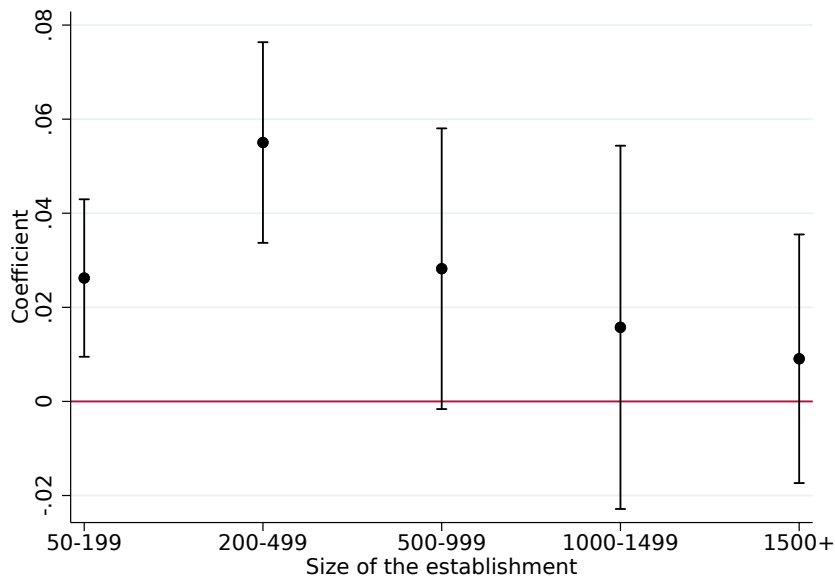
Figure D.1: Heterogeneity on the probability of exit by gender of the CEO



Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016-2018.

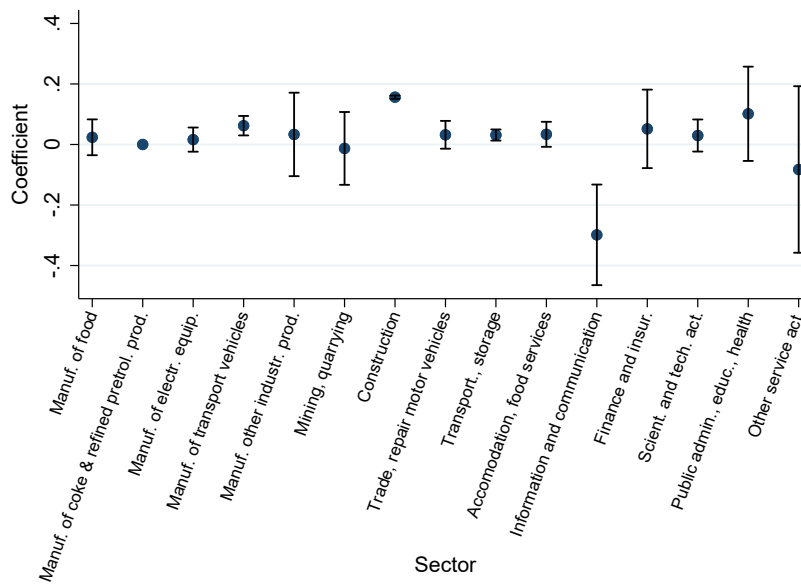
Note: The figure plots the coefficients  $\beta_{gk}$  obtained with the OLS estimation of equation 10 and their 95% confidence intervals.

Figure D.2: Heterogeneity on the probability of exit by size of the establishment



Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016-2018.  
 Note The figure plots the coefficients  $\beta_{gk}$  obtained with the OLS estimation of equation 10 and their 95% confidence intervals.

Figure D.3: Heterogeneity on the probability of exit by sector



Source: 2016 Working Conditions Survey, DADS 2015, and DMMO 2016-2018.

Table D.1: Triple difference estimation for *being told obscene or degrading things by colleagues* (Equation (10))

	(1)	(2)	(3)	(4)	(5)
	Entry	Exit	Termination by agreement	Quit	Layoff
$HarrassFirm_i \times MeToo_{gt}$	0.00555 (0.00658)	0.02509*** (0.00684)	-0.00044 (0.00564)	0.01780** (0.00685)	0.00968 (0.00700)
<i>Observations</i>	619272	619272	619272	619272	619272
$R^2$	0.699	0.677	0.662	0.711	0.688

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors clustered at the establishment level are presented in parentheses.

Table D.2: Triple difference estimation for *being made insistent sexual propositions by colleagues* (Equation (10))

	(1)	(2)	(3)	(4)	(5)
	Entry	Exit	Termination by agreement	Quit	Layoff
$HarrassFirm_i \times MeToo_{gt}$	0.00830 (0.00733)	0.03657*** (0.00770)	0.01308 (0.00704)	0.00485 (0.00787)	0.01042 (0.00811)
<i>Observations</i>	432480	432480	432480	432480	432480
$R^2$	0.706	0.683	0.671	0.722	0.701

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors clustered at the establishment level are presented in parentheses.

Table D.3: Triple difference estimation for *being physically or sexually assaulted by colleagues or superiors* (Equation (10))

	(1)	(2)	(3)	(4)	(5)
	Entry	Exit	Termination by agreement	Quit	Layoff
$HarrassFirm_i \times MeToo_{gt}$	0.01402 (0.00877)	0.01791* (0.00888)	0.01069 (0.00833)	0.01357 (0.00885)	0.01699 (0.00868)
<i>Observations</i>	356280	356280	356280	356280	356280
$R^2$	0.702	0.679	0.672	0.717	0.700

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors clustered at the establishment level are presented in parentheses.

Table D.4: Triple difference estimation for *always or often hearing derogatory remarks or jokes about women at work* (Equation (10))

	(1)	(2)	(3)	(4)	(5)
	Entry	Exit	Termination by agreement	Quit	Layoff
$HarrassFirm_i \times MeToo_{gt}$	-0.00018 (0.00649)	0.03773*** (0.00672)	0.00354 (0.00578)	0.02572*** (0.00691)	0.01142 (0.00676)
<i>Observations</i>	619272	619272	619272	619272	619272
$R^2$	0.699	0.677	0.662	0.711	0.688

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors are presented in parentheses.

## E Robustness checks

Table E.1: Triple difference estimation of women’s quarterly relative workflows in high- and low-risk harassing establishments before and after #MeToo (Equation (10))

	(1)	(2)	(3)	(4)	(5)
	Entry	Exit	Termination by agreement	Quit	Layoff
$HarrassFirm_i \times MeToo_{gt}$	-0.00652 (0.01892)	0.09317*** (0.01979)	0.01249 (0.01257)	0.04354* (0.01801)	0.03096 (0.01692)
$N$	619320	619320	619320	619320	619320
$R^2$	0.727	0.699	0.643	0.736	0.687

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors clustered at the establishment level are presented in parentheses. The outcome of interest here is the  $\log((\text{flow}/N)+0.001)$  where flow is the number of workers from a certain type of worker flows (exit, entry, ...) and N is the number of workers in the establishment.

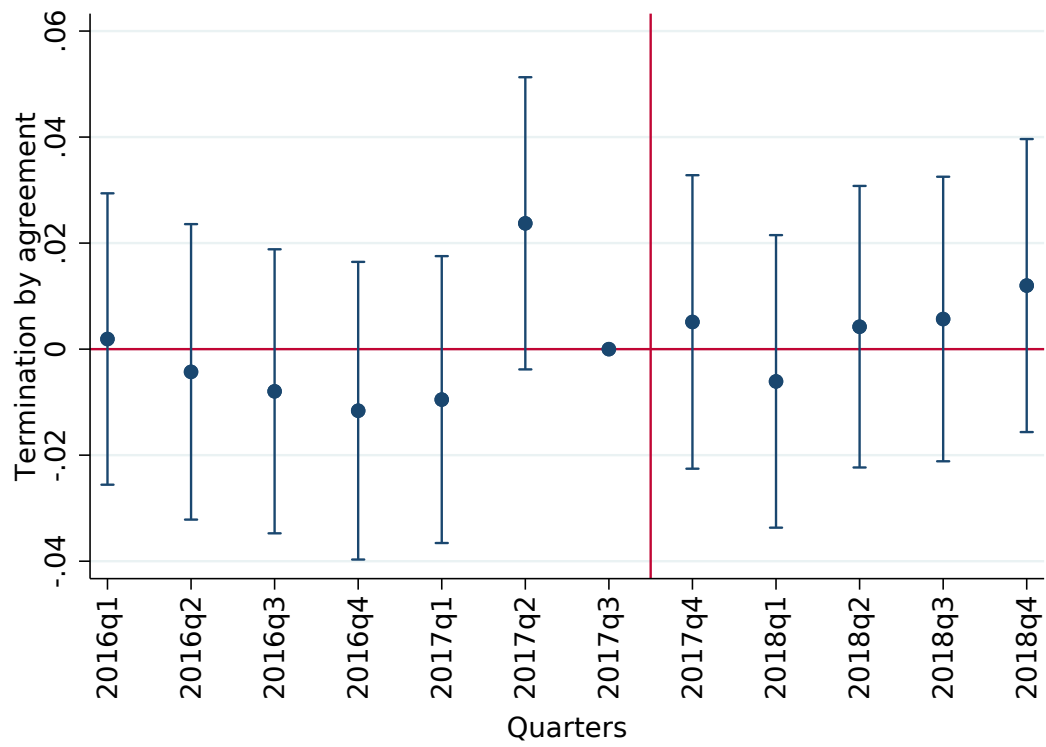
Table E.2: Triple difference estimation of women’s monthly relative workflows in high- and low-risk harassing establishments before and after #MeToo (Equation (10))

	(1)	(2)	(3)	(4)	(5)
	Entry	Exit	Termination by agreement	Quit	Layoff
$HarrassFirm_i \times MeToo_{gt}$	-0.00487 (0.01007)	0.05080*** (0.01093)	0.00469 (0.00485)	0.01923* (0.00902)	0.01593* (0.00710)
$N$	1857960	1857960	1857960	1857960	1857960
$R^2$	0.655	0.626	0.566	0.649	0.612

Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors clustered at the establishment level are presented in parentheses. The outcome of interest here is the  $\log((\text{flow}/N)+0.001)$  where flow is the number of workers from a certain type of worker flows (exit, entry, ...) and N is the number of workers in the establishment.



Figure E.1: Dynamic effects on termination by agreement (equation 10)



Note: \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ . Standard errors are presented in parentheses.