Workplace Hostility

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Abstract

We investigate how much individuals value a workplace free of hostility and whether this can be offset with hybrid or solo work arrangements. We conduct a choice survey experiment with 2,048 participants, recruited among alumni, recent graduates, and upper-year students from a large public university. Our experiment shows that people are willing to forgo a significant portion of their earnings to avoid hostile work environments—15 to 30 percent of their wage. Women report a stronger distaste for exclusive workplaces and environments with sexual harassment. We also find that women value hybrid work twice as much in the presence of sexual harassment and value teamwork more in non-inclusive environments. We propose a model of compensating differentials to understand how the presence of hostility shapes the demand for alternative work arrangements. Using counterfactual exercises, we find that gender differences in the risk of workplace hostility are an important driver of both the remote pay penalty and of office workers' rents.

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Introduction

Hostile work environments are workplaces that put employees at risk of unpleasant interpersonal interactions with negative consequences (Alan, Corekcioglu and Sutter, 2023). Previous survey-based studies suggest that workplace hostility is associated with a range of negative outcomes, including increased stress levels, absenteeism, and turnover intentions (Lim and Cortina, 2005; Porath and Erez, 2007). It is cited as the second most significant driver of job switching, after unsatisfactory pay (Parker and Horowitz, 2022). Hostile work environments also appear to be linked to a decrease in positive workplace behaviors, such as helping colleagues (Porath and Erez, 2007). Hostility has an added impact on women since they tend to induce a workplace environment in which women are less likely to be involved and acknowledged. These tactics of undermining induce stress and burnout (Hall and Sandler, 1982; Hall, Schmader and Croft, 2015; Miner et al., 2019; Lee and Mccabe, 2021; Puncheva-Michelotti, Hudson and Hennekam, 2024). Some factors, such as sexual harassment, are gendered and contribute even more to the unequal labor market effects for men and women (Batut et al., 2021; Adams-Prassl et al., 2023; Folke and Rickne, 2022, 2023).

Meanwhile, the way firms structure and manage workplace interactions has evolved. Teamwork and work off-site (for example hybrid or remote work) have risen sharply in the past decade or even most recently due to the Covid-19 pandemic (Wuchty, Jones and Uzzi, 2007; Barrero, Bloom and Davis, 2023). These working arrangements are associated with a change in bullying and everyday gender discrimination (Logan and Michael Malone, 2018; Bollestad, Amland and Olsen, 2022; Doering and Tilcsik, 2024).

In this paper, we study how workplace hostility shapes gender inequality in the labor market and explore the extent to which the organization of work with regard to teamwork and hybrid work shapes those inequalities. Specifically, we ask (1) How much do individuals value the absence of these hostility attributes? And how does that vary by gender? and (2) How can work arrangements (such as teamwork and hybrid work) shape the willingness-to-pay to avoid hostility at work?

Acquiring information on workplace hostility is challenging (Boudreau et al., 2023; Dahl and Knepper, 2021; Sockin and Sojourner, 2023). Possible informants usually fear intimidation and retaliation (Cheng and Hsiaw, 2022), and the widespread use of non-disclosure agreements

(NDAs) can further discourage employees from sharing negative experiences about their employers in online reviews (Sockin, Sojourner and Starr, 2023). As such, workplace hostility remains *ex-ante* hard to observe.[1] To document the disutility of workplace hostility dimensions, we adopt an experimental approach. This approach has two benefits. First, it allows us to estimate the valuations of this disamenity. Second, it aligns with the most recent developments where NDAs are contested and the availability of online reviews—including on culture—becomes vast (FTC, 2024*a*,*b*; Glassdoor, 2022).

Even in the absence of public information on the prevalence of workplace hostility, the quality of interactions at work may still play a role in shaping labor market sorting. Observational data indicate a positive correlation between the share of women in a given occupation and the importance of constructive workplace dynamics, such as cooperation and concern for others (Figure 1, see Appendix A for details). With limited information on an important but imperfectly observable determinant of job quality such as workplace hostility, individuals may form perceptions about its prevalence, and engage in both substitution based on other job attributes and sorting based on observable job characteristics, such as availability of solo work (versus teamwork) and hybrid work (versus on-site work). We explore that possibility by pairing our experimental data with a model of compensating wage differentials. Conceptually, to the best of our knowledge, we are the first to introduce the hypothesis that sorting on observable amenities can also reflect the perceived presence of unobservable amenities.

We conduct the experiment with a large and diverse sample. We recruited a sample of 2,048 participants consisting of alumni (43 percent of the sample), recent graduates (21 percent), and job-seeking upper-year undergraduate students (35 percent) from diverse majors, including psychology, sociology, business, economics, engineering, and computer science at the University of Toronto, the largest public university in North America. This sample is naïve to survey experiments. That is, our participants have limited experience with research surveys, which is associated with better data quality. We confirm that the sample is comparable to a representative sample of Canadian college graduates.

We presented respondents with a series of pairs of hypothetical job scenarios. Each of the two jobs varies exogenously on three workplace hostility attributes (exclusion, aggression, and

[1]Social connections can help mitigate the issue of imperfect information regarding workplace culture. Recently, Hampole, Truffa and Wong (2021) showed that female MBA graduates with a higher share of female peers are more likely to transition into female-friendly firms.

sexual harassment), wage, the possibility for professional growth and workplace arrangements (hybrid versus on-site and teamwork versus solo). Respondents are asked to assume that they will start either of the jobs within the next 30 days and to choose their most preferred job among the two. For a large part of the respondents, their choices are consequential; participants recruited through the Career Center (41 percent of the respondents) know that their decisions will shape programming at the university. This main part of the study is preceded by a pre-questionnaire with socio-economic and career-related questions, followed by a short survey about the respondents' past experience with hostile workplace cultures and their perceived risk of experiencing hostility at work in the next two years.

We find that the absence of any of the three workplace hostility attributes is overall greatly valued. Inclusion is equivalent to a 14 percent wage increase, comparable to a workplace that provides professional growth (15 percent wage increase). An aggression-free workplace is valued by respondents at 19 percent of their wage. The absence of sexual harassment is equivalent to a 30 percent wage increase. In contrast, these willingness-to-pay estimates for hostile-free environments are twice as large as those for hybrid work, which is equivalent to a 7 percent wage increase.

We then focus on differences between genders. We find that while both men and women value a workplace free of hostility, women are willing to forego a higher percentage of their wage for inclusive workplaces and work environments free of sexual harassment. Men value an inclusive workplace equally to 12 percent of their wage and a workplace free of sexual harassment equally to 20 percent. Women value them at 14 percent and 31 percent, respectively. This is a gap of 2.3 percent and 11 percent of their wage, respectively.

Next, we explore the idea of sorting on observable amenities given perceived presence of an unobservable amenities. Or in other words: we ask whether workplace hostility and working arrangements can be substitutes. For example, the tolerance for workplace hostility may depend on the extent to which an employee is exposed or, conversely, can steer clear of it. Physical hostility such as sexual harassment may, therefore, be less of a concern if the job is fully remote and physical interactions are not possible. Or respectful communication may become more important when the work is conducted virtually and visual cues such as facial expressions, tone of the voice, or gestures are not available to help interpret the information received. As such, the recent evolution of the workplace and conduct of work presents an

opportunity to reshape the value of different attributes of workplace hostility.

We first measure whether there exists a relationship between workplace hostility and the location of the workplace (in-person versus remote) and the organization of work (in teams versus by oneself). We find that women value hybrid work twice as much in the presence of sexual harassment at the workplace. Furthermore, women value teamwork more when the workplace is not inclusive, compared to an inclusive environment. In contrast, men's valuation of hybrid work and teamwork is inelastic across hostile workplace environments. Men appear to have the desire to offset workplace hostility somehow, though. We find that when faced with workplace hostility such as aggression, or sexual harassment, men put more weight on gaining professional growth at the workplace than women. Taken together, these results provide us with suggestive evidence that substitution across workplace arrangements and hostility does take place. They also suggest that women prefer to avoid workplace hostility altogether while men are more willing to trade them off for professional advancement.

To explore aggregate consequences of workplace hostility on sorting across jobs, we then take the WTP estimates from our experimental approach and pair them with a model of compensating differentials (Rosen, 1974, 1986). In our model, workers have preferences for two amenities—remote work and the risk of sexual harassment—where the latter is *ex-ante* unobservable to both workers and firms. Our goal is to explore the effects of exogenous changes of the characteristics of the work environments on workers' sorting, pay differentials across jobs and rents.

Our model predicts that when the risk of hostility at work increases, the average worker selecting into office jobs has a slightly higher preference for remote work and a lower distaste for sexual harassment. While this selection pattern can be mitigated when firms are constrained to internalize the risk of sexual harassment, the average worker's rent in office increases because of firms' monetary compensation. We then present three counterfactual experiments to quantify the impact of the risk of workplace hostility on the remote pay gap and on workers' and firms' rents. First, we exogenously decrease the risk of workplace hostility. Second, we exogenously shock the gender gap in preferences for hostility-free environments. Third, we assume that firms experience an exogenous technological shocks on the cost of remote work—such as for instance the technological innovations implemented during the Covid-19 pandemic. Our decomposition shows that gender differences in the risk of hostility at work are an impor-

tant driver of the remote pay penalty and office workers' rents, with an impact comparable to that of a large technological shock facilitating the provision of remote work by firms. Finally, we use our model to explore how a social planner's mandate on firms to reduce the probability of harassment affects sorting patterns and rents. We find that when firms are bearing the preventing cost of harassment, workers' selection in office jobs based on distaste for sexual harassment is attenuated. However, the impact on workers' rents is ambiguous, as firms are unable to screen workers based on their preferences and to compensate them differentially.

This paper contributes to several strands of the literature. Non-wage job amenities have long been understood as an important component of job quality shaping labor market outcomes and explaining wage disparities (Rosen, 1974, 1986; Burbano, 2016; Mas and Pallais, 2017; Kaplan and Schulhofer-Wohl, 2018; Wiswall and Zafar, 2018; Dube, Naidu and Reich, 2022; Lamadon, Mogstad and Setzler, 2022; Maestas et al., 2023; Morchio and Moser, 2023). Recent scholarship measured the value of commuting time (Le Barbanchon, Rathelot and Roulet, 2021; Bergemann, Brunow and Stockton, 2024), workplace safety (Anelli and Koenig, 2021), and meaningful work (Hu and Hirsh, 2017; Cassar and Meier, 2018; Burbano, Padilla and Meier, 2020; Burbano et al., 2022). In spite of its relevance in prospective and current employees' job choices, workplace hostility and its labor market implications have not yet been studied. With the notable exception of sexual harassment, which takes an extreme form of hostility (Folke and Rickne, 2022). Furthermore, our paper provides an experimental design solution which allows us to infer substitution effects across amenities from our survey parameters. Drake, Thakral and Tô (2022) investigate the welfare consequences of workers facing different amenity prices (work hours and workplace flexibility) assuming that conditional on willingness-to-pay, workers sort based on productivity. We study substitution in a context where one of the two workplace amenities is hard to observe. Sockin and Sojourner (2023) call these types of amenities "experienced goods" and find that while employees seek out information about hard to observe amenities, it is hard to get the inside scoop. Our paper demonstrates that knowing the inside scoop is not a necessary condition for sorting to take place. Instead, workers form expectations about the prevalence of experienced goods and act upon it, shaping the demand for substituting workplace amenities.

A growing body of literature documents inter-personal dynamics and their implications on the labor market (Burbano et al., 2022; Linos, Mobasseri and Roussille, 2023; Folke and

Rickne, 2023; Alan, Corekcioglu and Sutter, 2023; Carry and Schoefer, 2024). To the best of our knowledge, we are the first to investigate the complementarity and substitution between inter-personal dynamics and workplace arrangements.

We further add to the body of research on the causes and effects of the rise in remote work. The hybrid work model has surged since the Covid-19 pandemic (Barrero, Bloom and Davis, 2021, 2023; Emanuel and Harrington, 2023; Cullen, Pakzad-Hurson and Perez-Truglia, 2025). A handful of papers have started to look at the benefits of remote or hybrid work on gender inequality. Sherman (2020) finds that hybrid work benefits working mothers disproportionately, as they reported lower levels of family-work conflict and gained the greatest performance gain. Doering and Tilcsik (2024) documents that working remotely is associated with lower levels of everyday gender discrimination compared to on-site work. In contrast, Emanuel, Harrington and Pallais (2023) shows that women receive less mentorship but also fewer service demands when choosing to work off-site. We address the trade-offs identified in this body of work by showing that the demand for hybrid jobs is driven by amenities, either present or expected at the office

The remainder of this paper is structured as follows. We work towards a tractable and empirically validated definition of workplace hostility for the purpose of this study in Section 1. Section 2 offers a detailed description of the experimental procedures of our choice experiment and presents the identification strategy. Section 3 presents the overall results and delves into the differences across gender. Section 4 characterizes empirically the demand for hostility-free workplaces. Section 5 introduces a conceptual framework which helps us understand how observable and unobservable workplace attributes interact with one another. Using the case of sexual harassment, we model equilibrium outcomes in cases where employees

1 Hostile Work Environments

In order to develop a tractable definition of workplace hostility, we performed a thorough review of the literature on workplace hostility and incivility across several fields, including economics, organizational behavior, psychology, and sociology (Simmel, 1904; Buss and Durkee, 1957; Buss and Perry, 1992; Ferris et al., 2008; Akella and Lewis, 2019; Folke and Rickne, 2022; Alan, Corekcioglu and Sutter, 2023, to name a few). We noted down each definition we

encountered and extracted the adjectives or terms used. This yielded a collection of adjectives and terms. Through numerous iterations of linguistic clustering and discussions among the authors, we reduced them to three core attributes: Exclusion, Aggression, and Sexual Harassment. What follows is a description of each of these workplace hostility attributes in the order of average perceived level of hostility and a description of our empirical verification exercise.

1. Exclusion Ostracism is another distinct form of workplace hostility (Williams, 2007). It is characterized by "inaction", as it measures the extent to which an individual or group ignores, excludes, or omits socially appropriate actions towards others (Ferris et al., 2008; Robinson, O'Reilly and Wang, 2013). Such behaviors of exclusion or ignorance have the same effect regardless of whether they were intentional or not; in fact, it is oftentimes the case, that the intention is ambiguous to the affected (Williams, 1997, 2007).

2. Aggression Any form of undermining, bullying, or aggression is an explicit form of workplace hostility. Duffy, Ganster and Pagon (2002) define undermining as harm-inflicting interpersonal behaviors aimed to hinder relationships, work success, and favorable reputation. Bullying or aggression usually take on a more persistent form and involve humiliation or intimidation (Einarsen, 2000; Hershcovis, 2011; Hershcovis et al., 2017). Guided by the "hostility inventory" from the psychology literature, first developed by Buss and Durkee (1957) and revised by Buss and Perry (1992),[2] we characterized hostility as a nonphysical form of aggression. In contrast to physical and verbal aggressions—which represent the instrumental component of behavior—, hostility consists of "feelings of ill will and injustice" and represents the cognitive component of behavior (Buss and Perry, 1992). The scenarios in our job choice experiment reflect the fact that interactions at work can be "friendly" or "cutthroat". This attribute relates and enriches the "toxic relations" category used in Alan, Corekcioglu and Sutter (2023) that included hyper-competition, gossip, poor quality in human relations, and feeling unappreciated.

[2]Buss and Perry (1992) surveyed a large groups of college students in introductory psychology classes and asked participants to rate items according to how characteristic/uncharacteristic of them they were. They then conducted a factor analysis of 52 aggression items and identified four components of aggression: physical aggression, verbal aggression, anger and hostility.

3. Sexual Harassment "Unwelcome conduct that is based on sex" defines our third attribute of workplace hostility (U.S. Equal Employment Opportunity Commission, n.d.). Note that sexual harassment is an extreme form of hostility and can have severe negative psychological and career consequences (Schneider, Swan and Fitzgerald, 1997; Dionisi, Barling and Dupré, 2012; Folke and Rickne, 2022). It is also the attribute we have most robust evidence that it is has important economic remedies and contributes to pay inequalities (Folke and Rickne, 2022).

1.1 Workplace Engagement as a benchmark

Workplace satisfaction, or lack thereof, is a major determinant of labor market mobility (Freeman, 1977; Akerlof et al., 1988). It has also become an important predictor of employee resignation for organizations. Workplace satisfaction and engagement is measured through a workplace climate or pulse survey where organizations ask their employees about their levels of engagement, professional growth, and satisfaction. We will include a measurement of engagement in our experiment as a benchmark. We will call that amenity "Professional Growth." This allows us to measure the relative value of workplace hostility compared to a widely accepted measurement of employee resignation.

1.2 Empirical Validation

To validate that our three attributes of workplace hostility not only tightly correspond to the literature but also are recognized as a contributor of hostility by a wider sample, we recruited 200 individuals on *Prolific* and asked them about their impression. We included workplace engagement in this survey to obtain baseline measurements.[3] We do this in two ways. In a first step, we ask our participants to describe a hostile work environment in at least three full sentences. After the experiment, we went through each description given to us. Each description could be assigned to one or more attributes, confirming that our approach captures the core attributes of workplace hostility. Second, once participants shared their description with us, we asked them for their impression of our workplace attributes. That is, we show them each attribute separately and in random order. For each description, we asked them

[3]Note that this survey is not pre-registered. IRB approval has been granted by University of Toronto.

"how likely is it that [aggression] contributes to a hostile work environment?" and provided a slider scale ranging from "extremely unlikely" to "extremely likely". In numerical terms, the slider scale ranged from -100 top 100. Figure B3 shows the mean perception of each hostility attribute by gender. We document variations in how individuals rate each attribute: users rate sexual harassment as the most hostile attribute, followed by aggression, lack of inclusion, and lack of professional growth. We also document that female respondents are significantly more likely than male respondents to rate lack of inclusion as hostile (34% vs. 28%). [4]

Overall, this impression survey empirically validates that the three hostility are perceived to be the main drivers of hostility. However, they do so with a varying degree and capture different degrees and natures of hostility at work.

2 Hypothetical Choice Survey Experiment

2.1 Developing Realistic Job Offers

Recall that we developed three workplace hostility attributes: Exclusion, Aggression, and Sexual Harassment and one workplace engagement measure. To estimate their value in an experimental framework, we developed a realistic and yet stylized scenario for each attribute. In our effort to closely resemble naturalistic language, we hand-collected two types of data on jobs: (1) job descriptions from job ads and (2) job reviews from current or past employees. We obtained these data by screening job ads on LinkedIn, Indeed.com, and Glassdoor. We recorded workplace environment specific sentences and meta-information for each job ad that contained workplace specific language. Job reviews were collected from Indeed.com, where we focused on descriptions of workplace cultures of major firms (such as Apple, Walmart, or Shoppers). From this collection of data, we selected the sentences which came closest to the workplace attributes and, in a last step, standardized them to ensure the statements read naturally. To provide an example, the final wording of the hostility attribute *lack of inclusion* reads as "I often feel excluded and undervalued by my colleagues. It's challenging to be heard in an environment that lacks appreciation for diverse perspectives."

Naturally, this raises the question about the type of workplace scenario that corresponds to

[4] Details about the procedures, the survey instrument, and the results can be found in Appendix B.1.

the opposite of a hostile workplace and thus would comprise of our counterfactual. We do not aim to develop a definitive definition. Instead, our approach was to select the counterfactual of the workplace scenarios we developed. We do that by using antonyms of the language used for the hostile workplace scenarios and as a final step, again made stylistic adjustments for the scenarios to read naturally. To provide an example, the counterfactual of the hostility attribute *inclusion* reads as "The team is incredibly inclusive and supportive. They actively embrace diversity and create an environment where everyone's voice is heard and respected." The language for the full set of workplace scenarios is presented in Table C4.

These scenarios are then bundled together to create a variety of realistic workplace hostility scenarios. To make the workplace hostility scenarios more realistic and at the same time increase power, we excluded bundles which we predicted are highly unlikely to co-occur in the real world. For example, it seems very unlikely that a workplace has a record of sexual harassment but that otherwise the workplace is inclusive, respectful, supportive, and friendly. We are left with seven bundles of workplace hostility scenarios, which can be found under Figure F17, resulting in a total of 30 job offer pairs.[5]

These job offer pairs are enriched with additional job features. The final job offer consists of three more pieces of information about the job. First, the job offer defines whether the job will consist of mostly team work or solo work. Second, the job offer defines whether the job location is such that the job is to be completed mostly at the office or mostly from home. Third, the job offer comes with a salary. This means that each job consists of six categories (lack of professional growth, lack of inclusion, aggression, sexual harassment, job location, amount of teamwork) where each category can take two values.

To make the wage level relevant for the respondent, we set it in relation to their estimated or—when available—estimated current wage. The process is as follows. First, we use a benchmark annual salary for each participant. By default, the benchmark annual salary is equal to the median annual full-time salary for workers employed with the relevant major, aged between 25 and 64 with a bachelor's degree or higher. For alumni and students who indicated that they have already accepted a job, we are able to update the benchmark annual salary by either using the median annual full-time salary for workers employed with their relevant

[5]In our empirical approach, willingness-to-pay estimates to avoid hostility may reflect both the valuation of avoidance and the perceived risk of exposure. In Section 5, our model distinguishes between distaste for hostility and the likelihood of experiencing it.

major in their relevant sector, aged between 25 and 64 with a bachelor's degree or higher if the respondent provided us with the industry they work in. If the participant shares with us their current salary (or salary of their job which they have accepted but may not have started), their current salary will be used as their benchmark annual salary. Should the participant indicate that their annual salary is below CAD 10,000, we use the initial default salary. This design choice is based on the assumption that this individual may reference the wage of a student job or similar. Note that the median salary used as approximation is computed using employment income statistics by occupation, major field of study and highest level of education from Statistics Canada (2021 Census) for the population of full-time workers aged between 25-64 with a bachelor's degree or higher in each major. We compute the participant's benchmark annual salary after the participant completed the pre-questionnaire which contains industry and wage-related questions. The annual median salaries by majors are indicated in Appendix Table C3. To construct the job-specific wage, we follow Maestas et al. (2023). That is, we will use the benchmark annual salary and for each job randomly varied the wage to lie between 0.75 and 1.25 times the benchmark annual salary. We restrict the random variation when one job offer was strictly better than the other. In 21 out of 30 scenarios, one job was strictly better than the other with regard to workplace culture. This is for example the case when one job was "friendly" on all dimensions and the other job was "hostile" on all dimensions. In that case, we did not allow for the strictly better job to pay more.[6]

2.2 Conducting the Experiment

From July to October 2023, we ran a choice experiment to estimate the (dis)value in a dollar amount for each of our hostile workplace attributes, and combinations of hostile workplace attributes as a bundle.[7] This section details our design and randomization choices, sampling and recruitment procedures, and the full experimental design.

Our subject population is comprised of job-seeking upper-year undergraduate students,

[6]We did this by restricting the range within which the multiplier is randomly drawn from. The range would be restricted to lie between 0.75 and 1 for one job and 1 and 1.25 for the other job.

[7]Choice experiments (also known as conjoint analyses) are a well-established methodology in the field of marketing to study preferences for products before they enter the market, where sales data is unavailable. Choice experiments are a form of survey experiment. This method sees a surge in economics, in particular labor economics (Folke and Rickne, 2022; Eriksson and Kristensen, 2014; Mas and Pallais, 2017; Wiswall and Zafar, 2018; Maestas et al., 2023).

recent graduates, and alumni from diverse majors, including psychology, sociology, business, economics, engineering, and computer science from the University of Toronto, Canada. We recruited survey respondents through the university's undergraduate programs, career services, and university advancement office. Most personal correspondence occurred via email. To minimize selection on the outcome variable, our recruitment email disclosed that the purpose of the study is to better understand participants' job preferences, and that this will help career offices to offer our students and alumni better guidance and job recommendations. We distributed our survey up to three times to potential participants.[8] The final respondent pool consists of 2,048 participants.[9]

The study was advertised as a 10-minute survey in exchange for a fixed completion fee of CAD 5. Additionally, we draw thirty respondents at random who will earn an additional cash prize of CAD 250 each. Moreover, two questions in the experiment are incentivized and provide the participants with a chance to earn an additional CAD 1 each. Specifically, in the main part of the experiment, participants are given a total of thirteen scenarios. Each of which contains a pair of jobs they have to choose from. That is, they have to indicate their preference for one or the other job (Job A versus Job B). For scenario twelve and thirteen, we ask each participant to guess the percentage of total respondents who choose Job A over Job B. If their guess is correct, they will earn an additional CAD 1. We present the full questionnaire in Appendix F for more information.

With an expected hourly pay of CAD 30, we knew that it would be particularly hard to make this survey attractive for alumni. Thus, we try to activate pro-social incentives in our promotional materials to motivate their participation. We ask them to *help* researchers and highlight that their participation is *meaningful for both research and their alma mater*. Moreover, we offer to send participants the results of the research once completed. The intention of including non-monetary compensation is to motivate participation for potential participants for whom the monetary-incentives are not attractive enough (such as high-paid

[8]Our partners sent out an initial email and a reminder email to a total of 30,495 individuals, of which 2,755 (9.03 percent) responded. A breakdown of response rates by field of study can be found in Table C2.

[9]Following our pre-analysis plan, we only considered participants who have completed the entire experiment. We exclude duplicate responses, defined as responses with the same IP address and similar email. Note that we pre-registered that we will remove all individuals with duplicate IP address. In those cases, we keep the response that has been submitted first. However, we learned that same households could have the same IP address. Since many students and Toronto residents share housing, we kept responses with same IP address but markedly different email address. We exclude responses who completed the study in three minutes or less which indicates speeding.

individuals).

While our field partners were unable to provide our respondents with job recommendations in line with their revealed choices, one of our partners used the results from this experiment to inform their next-semester programming. That is, for that subgroup of respondents, their choices have real-world consequences. We conveyed these consequences to this sub-group of respondents. Specifically, we informed them upfront that "*Your participation will translate into next semester's programming and will help our career offices to offer our students and alumni better guidance and job recommendations moving forward.*"

We now turn to the experimental procedure. Participants are first provided with an overview of the study procedures, duration, and compensation. Since we expect that some of our participants have moved to the US, we also provide them at the beginning of the study with an option to be paid in CAD or USD. Once participants consent to participate in the study and selected their preferred currency for payment, they are asked to complete a short pre-questionnaire with socio-economic and career-related questions (see Part 1).

Next, we provide participants with an introduction to the decision-making task. We explain to them that we will provide them with a set of thirteen pairs of job offers and ask them to compare Job A and Job B.[10] The jobs may differ on three overall dimensions: workplace culture, amount of team-work, and location of the workplace. The participant is asked to select their preferred job under the assumption that they would start the job within 30 days and don't have any conflicting work, school, or personal commitments. We also explain to the participant that while the jobs are fictional, the description of the workplace culture has been obtained from real workplace reviews online (from Indeed and Glassdoor) and standardized for the purpose of this study. To ensure participants understand their task, they are asked to complete one understanding question before they begin with the series of job choices. Once they answered the understanding question correctly, they are forwarded to the first set of job offers. The last two of the thirteen sets of job offers are accompanied by one additional question. Once participants indicated their job preference, we ask them to guess the percentage of participants who selected Job A over Job B. That question appears on a separate page.

After participants have completed the main portion of the experiment, they are asked to complete a short follow-up survey. The survey asks participants about their past experience

[10]Note that our approach assumes participants view opting into a job and opting out as symmetric decisions. This is equivalent to assuming no search costs, no firm-specific human capital or loss aversion.

with hostile workplace cultures and their perceived risk of experiencing hostility at work in the next two years.

Several job offer elements in this study have been randomized. Recall that each job offer scenario consists of two jobs, where each job is characterized by a bundle of workplace hostility attributes, workplace location, amount of teamwork, and the salary. The bundle of workplace hostility attributes for the first 11 scenarios will be drawn at random and without replacement from 28 unique job offer pairs which are described in Sub-section 2.1. Note that we had constructed 30 unique job offer pairs. The remaining two scenarios will be shown in scenario 12 and 13, respectively. These last two scenarios will be shown in the same order. That is, every respondent sees the same scenario 12 and the same scenario 13 (with respect to the workplace hostility bundle). Screenshots of scenario twelve and thirteen can be found in Figure F18 and Figure F19, respectively. We hold those two scenarios constant because they are tied to a follow-up question.

Workplace location and amount of teamwork are randomized across respondents. For half of the respondents, workplace location and amount of teamwork are randomly determined at the beginning of the experiment and fixed for the entire duration of the study. For the other half of the respondents, workplace location and amount of teamwork is randomly determined for each job they see. Whether these workplace arrangements are stable or randomized is itself randomly determined. We do this across-respondent randomization, where we hold workplace location and amount of teamwork stable for half of the participants, to decrease noise for the measurement of our workplace hostility attributes.

2.3 Model and Specification

The choice experiment yields binary job choices where for each job a compensation in dollar amount attached. Following Maestas et al. (2023) we aggregate individual responses into a dichotomous variable which indicates the preference for Job A. Furthermore, the absence of any hostile attributes is indicated with a binary variable for each job, where 0 means the hostile attribute is present and 1 means it is absent. We chose this setup since it allows for a more intuitive reading of the coefficient. The coefficient will tell us how many wage percentages the respondent is willing to forego in order to avoid a given hostility attribute.

To estimate measures of willingness-to-pay for the workplace attributes as well as hybrid

and solo work, we use a standard model of hypothetical job choices used in the willingness-to-pay literature (Wiswall and Zafar, 2018; Maestas et al., 2023). Jobs are indexed by j, presented by choice pair t =A,B. Each job is characterized by a vector of K non-wage attributes $X'_j = [X_{j1}, ..., X_{jK}]$. w_{ijt} is the wage associated to job j in choice pair t. Let $U_{ijt} \in \mathbb{R}$ be individual i's utility from job j within the choice pair t:

$$U_{ijt} = u_i(X'_{jt}) + \delta_i \ln(w_{ijt}) + \varepsilon_{ijt} \tag{1}$$

$u_i(X') \in \mathbb{R}$ is the preference of individual i over the vector of characteristics X', $\varepsilon_{ijt} \in \mathbb{R}$ is the additional job-specific preference component for job j reflecting all remaining attributes of the job which affect utility, if any. Let ε_i be the vector of these components for individual i, $\varepsilon_i = \varepsilon_{i1}, ..., \varepsilon_{iJ}$. We assume that ε_i is an i.i.d. Extreme Value Type I random variable, as is standard in the willingness-to-pay literature. After observing the attributes $X_1, ..., X_K$ and w for the two jobs and ε_i, individual i chooses the one job with the highest utility: i chooses job j if $U_{ij} > U_{ij'}$ over $j' \neq j$ within the choice pair t.

Assumption for identification of preferences We assume that the binary choices observed reflect a linear indirect utility function. The $\varepsilon_{i1}..., \varepsilon_{iK}$ job-specific terms are i.i.d. and independent of the experimentally manipulated job attributes $X_1, ...X_K$. Our experimental design ensures that respondents are instructed that the jobs vary only in the listed characteristics and are otherwise identical. Under this assumption, and with

$$U_{ijt} = \alpha + \beta_i X'_{ijt} + \delta_i \ln(w_{ijt}) + \varepsilon_{ijt}$$

we write

$$p_{ij} = \mathbb{P}\left(U_{ijt} > U_{ij't}\right) = \frac{\exp\left[(X'_{ijt} - X'_{ij't})\beta_i + \delta_i(\ln(w_{ijt}) - \ln(w_{ij't}))\right]}{1 + \exp\left[(X'_{ijt} - X'_{ij't})\beta_i + \delta_i(\ln(w_{ijt}) - \ln(w_{ij't}))\right]}$$

The preferred specification is a mixed logit model, which allows for unobserved heterogeneity and unrestricted substitution patterns (Train, 2009).

$$p_{ij} = \int \left(\frac{e^{\beta' X_{ij}}}{\sum_j e^{\beta' X_{ij'}}} \right) f(\beta|\theta) d\beta$$

where $f(\beta|\theta)$ is the density function of β. We aggregate individual responses into a dichotomous variable indicating preference for Job A.

Estimation of the willingness-to-pay to avoid hostile environments The willingness-to-pay for each non-wage attributes is derived by equalizing the utility of an individual who is indifferent between working in a hostile environment according to the hostility attribute k, and working in a non-hostile environment:

$$\delta_i \ln(w_i) = \beta_i^k + \delta_i \ln(w_i - WTP_i^k)$$

where β_i^k is the individual i's marginal utility of attribute k, and δ_i is the marginal utility of the log wage. Hence:

$$WTP_i^k = w_i \left[1 - \exp\left(\frac{-\beta_i^k}{\delta_i}\right)\right] \tag{2}$$

We will present our estimates in terms of $1 - \exp\left(\frac{-\beta_i^k}{\delta_i}\right)$, meaning that, if the job offers attribute k, the increase in utility corresponds to a $100\left(\exp\left(\frac{-\beta_i^k}{\delta_i}\right)\right)$-percent wage change. Standard errors are calculated using the delta method and adjusted for clustering by respondent. We also relax the assumption of additive separability and estimate a logit model allowing for two-way interactions to test whether the presence of work-from-home or teamwork affects the willingness-to-pay to avoid hostile environment. To obtain standard errors for the average willingness-to-pay estimates, we bootstrap over 500 simulations, clustering by respondent.

3 Results

3.1 Sample Statistics

We begin by describing the characteristics of the full sample. We received a total of 2,048 responses, of which 724 were upper-year enrolled students, 436 were just-graduated students, and 888 were alumni. 69 percent of the respondents were women, 29 percent were men, and 2 percent identified as non-binary.[11] The sample was racially/ethnically diverse with 29 percent

[11] Detailed gender categories can be found in the survey instrument in Section F. The slight overrepresentation of women in the experimental sample is a typical occurrence in survey experiments conducted at public

identifying as White, 28 percent identifying as Chinese, 19 percent as South Asian, 3 percent as Black, and 27 percent identified as a different race or ethnicity. With regard to the fields of study, 36 percent of the sample majored in Psychology, 10 percent in Sociology, 8 percent in Computer Science or Engineering, 7 percent in Biology, 6 percent in both Economics and Business, and 33 percent in other fields. Employment characteristics are split by students and alumni and can be found in Table 2.

As the potential generalizability of our findings can be affected by selection, we compare the characteristics of the alumni subsample to the Canadian college graduate population (Appendix Table C1).[12] Our alumni sample is slightly younger and has more women than the college graduate population of Canada. Nonetheless, employment status, weekly hours, annual income and industry composition in our sample are highly comparable to those in a representative sample of college-educated Canadians. In the robustness checks, we explore how our results change if we re-weight our regressions to more exactly match the composition of college-graduate respondents in the Canadian LFS in terms of gender, age and presence of children.

We also collected data on participants' past experience of hostility at work (or studies) and on their perceived risk of experiencing hostility at work (during coursework) in the future.[13] As Table 3 shows, respondents in the sample report high experience of professional growth (73 percent) and experience of inclusion at work (89 percent). 62 percent declare having experienced aggression at work or during their studies. Finally, 16 percent of the sample's respondents report having experienced sexual harassment at work, which is consistent with estimates from different contexts (Batut et al., 2021; Folke and Rickne, 2022).

Women are more likely than men to declare having experienced sexual harassment in the past, but don't report significantly different levels of prevalence of aggression and lack of inclusion. In terms of future risk, they are more likely to feel at risk of experiencing lack of inclusion and harassment in the next two years than men. Non-white respondents report systematically lower experience of professional growth, inclusion and significantly more

universities (Wiswall and Zafar, 2018; Cortés et al., 2023; Christian, Ronfeldt and Zafar, 2024).

[12]We use the public use microdata file of the October 2023 wave of the Canadian Labor Force Survey, restricting the sample to individuals older than 19, with a college degree or more.

[13]Note that we adjusted the wording of these questions to match the participant's circumstances. That is, we asked current students and just graduated students about their experience during coursework and alumni about their experience at the workplace.

frequent experience of aggression and sexual harassment than white respondents. Students (enrolled and who just graduated) report systematically higher levels of hostility at work compared to alumni. Finally, respondents who are either enrolled or have graduated in male-dominated fields[14] report significantly higher prevalence of aggression (73 percent) compared to current students or alumni of female-dominated fields (61 percent, p-value = 0.00). At the same time, they report a lower perceived risk of experiencing sexual harassment in the future compared to respondents in female-dominated fields (15 percent compared to 18 percent, p-value =0.07).

3.2 Willingness-to-Pay to Avoid Workplace Hostility

In line with Maestas et al. (2023), we aggregate individual responses into a dichotomous variable which indicates the preference for Job A. Furthermore, the absence of any hostile attributes is indicated with a binary variable for each job, where 0 means the hostile attribute is present and 1 means it is absent. We chose this setup since it allows for a more intuitive reading of the coefficient. The coefficient will tell us how many wage percentages the respondent is willing to forego in order to avoid a given hostility attribute. To estimate measures of willingness-to-pay for the workplace attributes as well as hybrid and solo work, we use a standard model of hypothetical job choices used in the willingness-to-pay literature.

Furthermore, recall that respondents are told that the two jobs they get to choose from vary only in the characteristics listed. This allows us to hold everything else constant and obtain a willingness-to-pay estimator for each hostility attribute individually using only one model. This approach, allows us to compare valuation of several hostility attributes simultaneously.

We estimate the willingness-to-pay with a mixed logit model. Mixed logit allow random coefficients whose distribution in the population is estimated. As we will see later, our results are robust, however, to alternative specifications and sample restrictions.

Table 4 presents our willingness-to-pay estimates and show the percentage wage increase needed to switch from a non-hostile to a hostile environment. That is, we construct each amenity as "neutral/positive" by default, such that the estimates indicate willingness-to-pay to work in a non-hostile environment. We find that respondents are willing to give up a substantial portion of their wage to avoid workplace hostility. Table 4 column 1 shows that,

[14]This includes computer science, physics, engineering and economics and could be people of any gender.

on average, a work environment that offers inclusion is valued at a 14 percent wage increase. Absence of aggression at work is valued by respondents at 19.5 percent of their wage. Our estimates suggest that participants would be willing to give up 31 percent in wages to work in an environment that is free of sexual harassment.

In comparison, professional growth is equivalent to a 15 percent wage increase. The estimated valuations of workplace arrangements were more modest. Our respondents value hybrid work on average 6.6 percentages of their current wage, when offered the choice between in-office and hybrid work. Note that our estimations suggest that respondents have a higher valuation of a non-hostile work environment than they value the option to work hybrid (between 15 and 30.9 percent versus 6.6 percent).[15] Respondents don't have a preference for either teamwork or solo work. That is, respondents have a close-to-zero valuation of teamwork compared to solo work. Note that in contrast to Maestas et al. (2023), in our setting teamwork didn't imply being evaluated as a team. Instead, respondents are given the choice between completing projects by themselves versus by themselves and sometimes in teams.[16]

Robustness and Additional Data Quality Checks We explore the robustness of our results to alternative specifications in Table 5. The baseline specification (mixed logit) is presented in column 1. First, we test the robustness of our results using a standard logit model, relaxing the unobserved heterogeneity assumption. Results are presented in column 2. Second, we test the sensitivity of our results to the distribution of the error term, with a probit specification in column 3. The willingness-to-pay estimates are comparable across the standard logit and probit. They are slightly lower than when we allow for unobserved heterogeneity. To relax the assumptions of additive separability, we also estimate a model with two-way interactions between non-wage characteristics. Results are presented in column 4. When compared to the linear model, these willingness-to-pay estimates are comparable in magnitude. We provide mean estimates of the mixed logit as an alternative to the median in column 5 and find

[15]Our estimates of the willingness-to-pay for hybrid work align with those of previous studies (Mas and Pallais, 2017; Barrero, Bloom and Davis, 2021), which report valuations ranging from 7 to 10 percent of the wage. More recently, Cullen, Pakzad-Hurson and Perez-Truglia (2025) estimate a higher WTP (25 percent) for partly or fully remote roles for U.S. tech workers using real job offers. Our approach estimates valuations for hybrid work accounting for the role of workplace hostility, which may explain our smaller estimates. We explore the idea of working arrangements and workplace hostility acting as substitutes further in Section 4.3 and in the model in Section 5.

[16]The precise wording is as follows: "You complete projects by yourself" versus "You sometimes complete projects by yourself and sometimes in teams."

consistent results across the different workplace attributes.

We also present distributions of individual-level preference estimates in Figure 2 to compare the estimated population distribution with the sample average of the conditional distribution (Train, 2009).[17] Consistent with results from Drake, Thakral and Tô (2022), we find that individual estimates of willingness-to-pay tend to be larger than population-level averages.

To confirm that our results are not driven by selection of respondents in the experimental sample, we use the Canadian LFS to reweight our sample to match the joint distribution of gender, age and presence of children in the Canadian college-graduate population. Table D7 confirms that our findings are qualitatively similar in both the unweighted and reweighted alumni samples.

Our sample is not fully balanced across sub-fields, as our summary statistics Table 1 shows. To explore whether this should give rise to concern, we compare the main estimates of our sample of Psychology majors to the remaining sample. Psychology majors comprise of the largest group of respondents in our sample and thus, this comparison helps us understand to which extent respondents with Psychology majors drive any of our results. Results are presented in Table D8, columns 1 and 3. We find that respondents with a Psychology major have overall comparable levels of willingness-to-pay. However, they have a larger willingness-to-pay for inclusive and aggression-free environments, compared to respondents of all other majors. For those two hostility attributes, psychology-majors report a willingness-to-pay of 13.7 percent (compared to 10.9 percent, p-value = 0.008) and 20 percent (compared to 15.6 percent, p-value = 0.000).

Moreover, we explore the correlation between stated preferences as measured in the experiment, and revealed preferences. Stated-preference research can suffer from social desirability bias and experimenter demand effects.[18] While we are unable to fully rule out those concerns, we investigated three ways to probe the robustness of our results. Recall that one of our part-

[17] The θ parameters can be estimated by maximizing the simulated log-likelihood function. We use the Stata command `mixlbeta` after the mixed logit estimation `mixlogit`.

[18] A stated-preference approach can produce different results from a revealed-preference approach for two additional reasons. First, our framework assumes that participants perceive opting into a job and opting out as equivalent decisions, which may not hold, particularly if workers' behavior is influenced by loss aversion. Second, a revealed-preference approach to non-wage amenities might yield lower estimates if workers have inaccurate beliefs about their potential outside options (Jäger et al., 2024). Nevertheless, using a revealed-preference approach, Sorkin (2018) finds that compensating differentials account for a significant share of pay differences across firms. Overall, we view our approach as a way to benchmark willingness-to-pay magnitudes for different attributes against one another.

ners, the Student Career Services Center, used our responses to inform their next-semester programming. Table D8, columns 3 and 4 compare the estimated willingness-to-pay of all workplace attributes for respondents contacted by Student Career Services Center with all other respondents. The results are very similar. Respondents recruited through Student Career Services Center have a significantly lower willingness-to-pay for hybrid work, compared to all other respondents (5.2 percent versus 8.2 percent, p-value = 0.030). This correlates with other sample differences. The pool of Student Career Services Center respondents is on average younger and significantly less likely to have children. Apart from that, the estimates across the two sub-samples are indistinguishable.

Second, Table D8, columns 5 and 6 compare the estimated willingness-to-pay of all workplace attributes for respondents who ticked the box "Yes, please retain my email address and send me your research paper" (70 percent of the sample) compare to those who didn't, to compare how our results vary with participants' level of prosocial behavior. Overall, we find really comparable results, although participants who didn't ask to receive the research paper have marginally significantly larger willingness-to-pay for harassment-free environments compared to those who did ask for the paper (28.2 percent versus 25.8 percent, p-value = 0.078).

Third, we look at whether the respondent's revealed preference is correlated with the choices they made in the survey. As part of our survey, we ask participants what their current situation looks like. This includes information about their current industry, salary, and whether they currently have a hybrid workplace and work in teams. We correlate these last two factors with the respondent's willingness-to-pay for hybrid work and teamwork. We find that both willingness-to-pay estimates correlate with the respondents' working conditions. In Table D9 Panel A, the willingness-to-pay estimate to work hybrid is more than twice as large for respondents who currently work remotely compare to those who work mostly in office (11 percent versus 4.6 percent, p-value = 0.002). This difference is driven by female respondents as shown in Panel C (11.3 percent versus 3.6 percent, p-value = 0.001). Similarly, Table D10 Panel C shows that female respondent who currently work mostly in team have a positive and statistically significant willingness-to-pay to work in team, compared to respondent working mostly autonomously who don't value this amenity (4.5 percent versus 0 percent, p-value = 0.033).

Lastly, we place our findings in the context of previous research on valuations for work-

places free of sexual harassment (see Appendix D.1 for details). Our estimates suggest that participants would be willing to give up 31 percent in wages to work in an environment that is free of sexual harassment. In comparison, Folke and Rickne (2022) find a willingness-to-pay of 10 percentage points. Our experimental design and econometric approach differ from those of Folke and Rickne (2022) in several key aspects, including the severity of the sexual harassment scenario, the alternative scenario conditions, the precision of our willingness-to-pay estimates, and the modeling method (mixed logit vs. OLS), leading us to expect higher estimates, which, when approximated to their design, yield results consistent with their findings.

3.3 Gender Differences in Willingness-to-Pay to avoid Workplace Hostility

We will now turn to differences in valuations by gender.[19] For the comparison between men and women, we will rely on the standard logit model since this approach will allow us to compute the p-value and thus evaluate statistical significance. While the estimates between the mixed logit and standard logit slightly differ, the gender differences in estimator are both quantitatively and qualitatively similar.

As illustrated in Table 4 column 2, women overall display a higher appreciation for a workplace that is free of workplace hostility. This is most pronounced with respect to their tolerance for the occurrence of sexual harassment. While men are willing to give up 17.9 percent of their wage to work in an environment that is free of sexual harassment, women are willing to give up 29.9 percent of their wage (p-value <0.001). Figure 2 Panel (D) suggests that a fraction of respondents have negative valuations for harassment-free environments. We explore this further in Figure D9 by replicating the estimation separately by gender. Panel D indicates that men are disproportionately represented in the lower end of the distribution regarding the value placed on a workplace free from sexual harassment. Furthermore, while men value an inclusive work environment at 10.1 percent of their wage, women value it 12.6 percent (p-value = 0.013). There is also a difference in tolerance for aggression at the workplace, at least directionally. Women value a workplace free of aggression at 1.75 percent of their wage while men do so at 1.58 percent (p-value = 0.088). We don't see any differences with respect

[19]Respondents have the following options to choose from: "Man", "Non-binary", Trans man", "Trans woman", "Woman", "I prefer to write myself" with a text box added. Recall that only 2 percent of our sample identify as non-binary. This results in a sample size too small to allow for statistical tests across different gender identities. Therefore, this section will focus on the contrasting between respondents who identify as *Women* and *Men*.

to professional growth, the valuation of hybrid work, and teamwork.

Tolerance for a hostile workplace environment may also depend on context. To explore that option, we compare the choices from respondents who study in or graduated from a female-dominant field.[20] We find and report in Table D5 that respondents from a female-dominated field obtain a higher disutility from harassment than respondents from a male-dominated field. The willingness-to-pay estimates for the other three attributes (lack of professional growth, lack of inclusion, and aggression) are comparable across female- and male-dominated fields. The reported gender differences in sexual harassment is consistent with the story of selection. That is, while respondents from female-dominated fields value the absence of sexual harassment more, they also report a lower level of prevalence of sexual harassment.

Other Heterogeneous Effects Table D5 shows that current or just graduated students value a harassment free workplace significantly higher than alumni do. They would be willing to give up on 28 percent and 24.7 percent, respectively (p-value = 0.007). When it comes to workplace arrangement, we find that current or just graduated students value hybrid work much less than alumni (5.5 percent percentages versus 8.6 percent, p-value = 0.004). White respondents and respondents without parents who have a college degree (first gen) value a workplace free of aggression 2 percent and 4.5 percent more, respectively, than their comparison group. Alumni and white respondents both value hybrid work more than students and non-white respondents (8.6 percent and 9.1 percent, respectively, versus 5.3 percent and 6.5 percent, respectively, p-value = 0.004 and 0.123, respectively). Finally, Figure D8 (corresponding Table D6) presents heterogeneity by broad industry groups. While we find some heterogeneity in valuation for working arrangements such as hybrid work and teamwork, individuals' valuation for hostility-free work environments appear relatively similar, with individuals in arts, education and health valuing inclusion, aggression-free environments and workplaces free of sexual harassment slightly more than individuals in business, government and science.

[20]We define a field of study as female-dominated if it has a share of women students of 50 percent or higher and as male-dominated otherwise. As shown in Figure C7, the gender makeup across majors at the University of Toronto at the Faculty of Arts & Sciences and Rotman School of Management, which offer the majors of interest in this study, has been remarkably stable between 2013 and 2022.

4 Characterizing the Demand for Hostility-Free Workplaces

We aim to further investigate the factors that influence the demand for hostility-free workplaces, particularly how these factors differ for men and women. First, we examine the extent to which wages, outside options and career levels impact workers' WTPs to avoid hostility at work. Second, we explore the role of social norms and and analyze whether male and female respondents perceive others' demand for hostility-free environments differently. Finally, we explore whether alternative working arrangements can serve as substitutes for mitigating the risk of hostility at work.

4.1 Career Levels and Outside Options

Demand for hostility-free workplaces may be a function of the stage of career an individual is and their potential bargaining power at work. While we have imperfect data on career levels, we do have data on the alumni respondent's self-reported earnings. We first ask whether workplaces free of hostility are a luxury good. To do so, we split the sample by quartiles of the joint annual earnings distribution. Results are reported in Figure 3. We document that women's willingness-to-pay to avoid workplace hostility is remarkably flat across the four groups of income distributions. That is, women's valuation of workplaces free from hostility does not depend much on the income level they are in. While we lack the power to draw a firm conclusion, men's willingness to forego additional earnings in exchange for a workplace free of hostility is u-shaped with respect to inclusion, aggression, and sexual harassment. Men and women's preferences are stable and look similar when we look at their utility of hybrid work and teamwork.

To explore whether demand for hostility-free environments depends on workers' outside options, Table D11 presents WTP estimates for the population of alumni respondents splitting the sample by employment status, namely restricting the sample to full-time, part-time employed individuals or participants due to start a new job within the next month, or to participants not working.[21] Interestingly, we find that individuals employed have significantly lower willingness-to-pay to avoid hostile workplaces than individuals not employed, with lower

[21]This includes participants unemployed but seeking employment, participants not in paid work, and others. These patterns are similar when we distinguish participants working full-time to the other categories.

valuation for professional growth (11.4 percent vs. 17.1 percent, p-value =0.016) and workplaces free of sexual harassment (23.6 percent vs. 29.5 percent, p-value =0.025). These results show that the demand for hostility-free environments is not driven by outside options, but rather highlight that workplace quality may play a significant role in individuals' decisions to join the labor force or stay with a specific firm.

Finally, workplace hostility can arise from interactions with colleagues or peers (horizontal hostility) or from the environment created by management and the organizational hierarchy (vertical hostility). Understanding workers' varying levels of aversion to each type of hostility has distinct policy implications for managerial practices. Although our job scenarios did not explicitly differentiate between horizontal and vertical hostility, they did vary in the degree of teamwork involved. We compare participants' willingness-to-pay (WTP) between scenarios where they complete projects independently versus those that involve teamwork. Leveraging these variations, we present suggestive evidence that vertical hostility in the workplace imposes a greater cost on women than hostility originating from peer interactions. As shown in Table D12 Panel C, women's WTP for harassment-free environments is higher in scenarios with solo work compared to scenarios with teamwork (34 percent versus 29 percent, p-value = 0.081).

4.2 Perceptions of others' demand for hostility free environments

As shown so far, respondents put a sizable value on the absence of workplace hostility. We explore the role of social norms and study at respondents' beliefs about how much others value a workplace free of hostility, and whether these beliefs are potentially mis-calibrated. We elicited second-order beliefs for the last two scenarios. Specifically, after respondents made their job choice in the last two scenarios (that would be scenario 12 and 13), we ask them to "[p]lease provide [their] best guess to the following question: What percentage of respondents in this study will choose Job A over Job B?" To motivate respondents to think carefully and report truthfully, we incentivized this question with a $1 in additional pay for correct guesses.

Figure D10 takes scenario 12 and compares the respondent's guess of what share among all respondents will accept Job A to the actual choice of all respondents, separately by gender. Scenario 12 was designed such that it represents a strict tradeoff between a workplace that can be described as aggressive and lower pay. That is, in scenario 12, the respondent will have to decide whether they prefer a higher pay or a workplace that displays aggression. The

figure shows that for the whole sample, respondents underestimate how important it is for others to work in an aggression-free environment. Specifically, in Scenario 12, respondents believe that 62.06 percent of all respondents would accept a higher wage and an aggressive workplace while in actuality only 54.68 percent would be willing to accept that tradeoff (see Figure F18 to compare the two choices available to respondents in Scenario 12). In our context, this mis-calibration of second-order beliefs could lead to differential sorting from the workers side or managerial decisions based on inaccurate beliefs about other people's preferences. Interestingly, the distribution of beliefs doesn't markedly differ by genders: male and female respondents' are almost equally mis-calibrated. As a consequence, differences in perceptions of social norms around the acceptability of hostility are unlikely to drive gender differences in valuations.

4.3 Substitution between workplace hostility and working arrangements

We now explore whether working arrangements can act as a substitute against the risk of experiencing hostility at work using our experimental and survey data.

We begin by first exploring the relationship between the respondents' past experience with workplace hostility as well as predictions about future experiences with workplace hostility and their current workplace arrangement. The survey asks participants how commonly they experience each of the hostility attributes (lack of inclusion, aggression, sexual harassment) at the workplace (or for current students: during group/team projects at school). The survey also asks participants to predict what the percentage chances are that they will experience each of the workplace attributes at the workplace in the next two years of their career. We compare the average percentage estimates between respondents who say their current work arrangement involves hybrid work versus not and also between respondents who say they work in teams versus solo. The results are presented in Figure 4. Reported past experience of aggression and sexual harassment and the reported risk of experiencing hostility are significantly higher for respondents who report working on-site and mostly in teams.

In a second step, we explore to which extent respondents' willingness-to-pay for hybrid work varies by past experience and predicted future experience of hostility. Results are presented in Table D13 and Table D14. We provide suggestive evidence that the willingness-to-pay for hybrid work is higher for respondents who reported no past experience of aggression (8.7 per-

cent versus 6 percent, p-value = 0.042) and sexual harassment (7.8 percent versus 4.8 percent, p-value = 0.157), suggesting *ex-ante* sorting. Furthermore, the willingness-to-pay to avoid hostility varies across respondent predicted risk of experiencing workplace hostility in the future. Specifically, women who report low perceived risk of experiencing aggression report a significantly higher willingness-to-pay for inclusive, aggression-free and hybrid work environments than those who report high perceived risk of experiencing aggression (Table D15). Moreover, Table D16 shows that women who report low perceived risk of experiencing sexual harassment in the future are willing to forego a higher share of their wage for hybrid work (8.5 percent versus 4.3 percent, p-value = 0.008). We don't find such differences for male respondents (7.7 percent versus 5.5 percent, p-value = 0.506). Taken together, these results suggest that women's higher valuation of safe work environments correlates with their current working conditions. This translates into lower perceived risks of experiencing hostility in the future. We explore this potential sorting mechanism further in our conceptual framework.

Finally, and most closely related to the conceptual model introduced in Section 5, we look at the interaction between respondent's willingness-to-pay for hybrid work and workplace hostility. For simplicity, we restrict the hostility attributes to aggression and sexual harassment. Our comparison between workplace scenarios which contain either aggression, sexual harassment, or both, and workplace scenarios which contain none of the two hostility attributes shows that women value hybrid work twice as much in job scenarios which contain either aggression, sexual harassment, or both. Table 6 shows that women's WTP for hybrid work is twice as large in job scenarios with risk of sexual harassment than without (10 percent versus 5.7 percent, p-value = 0.074).

Overall, our results suggest that valuations for hostility-free environments and working arrangements vary with past experience and predicted risk of experiencing workplace hostility, suggesting a role for *ex-ante* sorting of workers across jobs that offer different workplace climates, particularly for women. We now turn to our model which illustrates how alternative working arrangements can act as substitutes to mitigate the risk of hostility in the workplace.

5 Conceptual Framework: Hostility and Hybrid Work

We now propose a simple equilibrium model which organizes key empirical facts from our experiment, and allows us to explore the potential equilibrium consequences of *ex-ante* unobservable workplace hostility on sorting across jobs. First, the model builds upon workers' heterogenous preferences over hostility measured in our experiment. Second, in our model, hostility is only present in office jobs, consistent with our survey evidence pointing to significantly lower prevalence for hybrid workers. Third, our model isolates distaste over hostility from the risk of experiencing it. With this simple model, we are able to generate theoretical predictions, to explore policy counterfactuals and study how a social planner's mandate on firms to reduce the probability of harassment affects sorting patterns and rents. We show that the risk of hostility has implications not only in terms of workers' selection across jobs and gender segregation of the labor market, but also in terms of gender pay gaps. We then explore three counterfactual exercises in which we shock preferences and characteristics of the work environment and study the impact on pay differentials and rents. We show that gender differences in the perceptions of the risk of hostility at work may be an important driver of the remote pay penalty. Finally, we study the welfare implications of firms' policy to reduce this risk.

5.1 Overview of Assumptions, Mechanisms and Implications

Our goal is to explore how the presence of an unobservable amenity affects workers and firm's choice on an observable amenity. For simplicity, we consider two amenities: hybrid work (observable) and sexual harassment (unobservable). We build on a compensating wage differential model (Rosen, 1974, 1986) in which we assume that the economy is composed of a unit mass of workers and of firms that sort in office or remote jobs. As in the standard framework by Rosen (1974), we assume a fixed amenity price for the observable amenity. Workers differ in their preferences for both amenities. Firms differ in their productivity costs associated with remote work. For simplicity, we assume that the risk of sexual harassment is unobserved *ex-ante* by the worker and by the firm and sexual harassment occurs only in "on-site" jobs. We explore three cases: one benchmark case in which the second amenity (sexual harassment) is absent (Case 1), one case in which only workers internalize the risk of

sexual harassment (Case 2), and Case 3 in which both firms and workers internalize the risk of sexual harassment. We first derive equilibrium wages, and characterize selections and rents associated with each scenario. In the presence of hostility, the pay differential between remote and office jobs increases sharply with rising risk, as firms must offer additional compensation to incentivize workers to take on-site positions. This pattern is starker when firms internalize the risk, and compensate each worker accordingly. As a result, selection patterns shift based on workers' distaste for both forms of disamenities. Due to heterogeneity in workers' preferences, the average rents of office workers increase significantly with a positive probability of sexual harassment, especially when the firm internalizes this risk. This occurs because some workers receive high compensation for high risk, exceeding the amount needed to offset their distaste for sexual harassment and influence their decision to transition from remote to office jobs. In light of our empirical results on gender differences in valuations for safe work environment, the model predicts that men are more likely to be observed in office jobs—despite men and women having comparable valuations for hybrid work, and are more likely to extract higher rents. Our model also allows us to study firms' harassment prevention efforts and their impact on worker-job selection and the rents workers and firms extract. By uniformly increasing compensation, firms reduce sorting based on preferences for amenities, making the effects on worker rents in office jobs ambiguous despite reduced worker heterogeneity. If firms cannot screen workers by their tolerance for harassment, compensating for harassment risks simply increases average rents.

5.2 Set-up

Workers Workers are productively homogeneous. They select between two firms/jobs: $S = 1$ "on-site" jobs, $S = 0$ "remote jobs". We define the wages w_0 and w_1 that are paid to workers in each type of job. We write $\Delta_w = w_1 - w_0$ the wage differential between remote and on-site jobs.[22] We define $U(C_S, S)$ the utility function over consumption level C_S and job type S, with $U_{C_S} \geq 0$ and $U_S \leq 0$. Let C_0 denote market consumption when $S = 0$. Given C_0, let

[22]In the model, Δ_w is typically assumed to be positive. This is consistent with recent empirical evidence from Emanuel and Harrington (2023) and De Fraja et al. (2022) that respectively highlight the role of productivity decline in remote work and of the complementarities between remote and in-person work. Note that empirically, observed wage differences are neither necessary nor sufficient for the existence of utility differences. The competitive environment determines the extent to which amenities are priced into wages. Consequently, remote pay penalty in the data may either understate or overstate inequality in utility.

C^* denote the consumption level required to achieve the same utility with a $S = 1$ job as C_0 guarantees with a $S = 0$ job:

$$U(C_0, 0) = U(C^*, 1)$$

The standard compensating wage differential is defined as $Z = C^* - C_0$. Let $G(Z)$ denote the distribution and $g(.)$ the density of worker's preference for remote work Z. We assume that Z is normally distributed with mean μ_Z and variance σ_Z^2. Our empirical analysis provides us with estimates of these parameters, reported in Table E19.

Sexual harassment as unobserved disamenity We introduce a second amenity: risk of sexual harassment. Risk of sexual harassment is unobserved *ex-ante* by the worker and by the firm. For simplicity, we assume that sexual harassment occurs only in "on-site" jobs. Let $p \in [0, 1]$ denote the worker's probability of sexual harassment.[23] $F(H)$ denotes the distribution and $f(.)$ the density function of worker's distaste for sexual harassment H. Workers choose job type to maximize utility: they choose

$$S = 1 \text{ if } \quad \Delta_w > Z + pH$$
$$S = 0 \text{ if } \quad \Delta_w \leq Z + pH$$

Labor supply We define $Y = Z + pH$. Note that compare to Rosen's model, we assume that amenities are additive and separable.[24] Additionally, we make the following assumption about the distribution of preferences.

Assumption 1. *Z and H are jointly distributed according to a bivariate normal distribution, with*

$$\begin{pmatrix} Z \\ H \end{pmatrix} \sim \mathcal{N}\left[\begin{pmatrix} \mu_Z \\ \mu_H \end{pmatrix}, \begin{pmatrix} \sigma_Z^2 & \sigma_{Z,H} \\ \sigma_{Z,H} & \sigma_H^2 \end{pmatrix} \right]$$

where $\sigma_{Z,H} = Cov(Z, H)$

We further explore in Appendix E.2 the case in which is Z and H are independent. We can rewrite $Y = \mu_Y + \sigma_Y X$ with $X \sim \mathcal{N}(0, 1)$. Informally, our empirical analysis highlighted large

[23] For our simulations we will use estimates of the perceived probability of sexual harassment derived from our survey. However, the model itself does not distinguish between perceived and actual probabilities.

[24] See Appendix E.1.1 for micro-foundations of the utility function.

gender differences in WTP for work environments free of sexual harassment, which suggests that women will be overrepresented in the upper tail of the distribution of Y. We derive the labor supply equations in both $S = 0, 1$ jobs:

$$\begin{aligned} L_1^s &= \int_0^{\Delta_w} \phi\left(\frac{x-\mu_Y}{\sigma_Y^2}\right) dx \\ L_0^s &= \int_{\Delta_w}^{\infty} \phi\left(\frac{x-\mu_Y}{\sigma_Y^2}\right) dx \end{aligned}$$

with $\phi(.)$ the probability density function of the standard normal distribution. L_1^S and L_0^S can be derived numerically using our estimates of $\mu_Z, \mu_H, \sigma_Z^2, \sigma_H^2$ and p. We simulate for values of $\sigma_{Z,H}$.

Firms Firms sell an homogenous good x for price 1 with labor L. The production technology has the following linear form:

$$\begin{aligned} x &= a_0 L \text{ if } S = 0 \\ x &= a_1 L \text{ if } S = 1 \end{aligned}$$

The disamenity is productive ($a_0 < a_1$): firms are more productive when workers are in the office.[25] Define $B = a_1 - a_0$, $B \sim \Psi(B)$ with $\psi(.)$ the density function. In this simple version, firms choose to produce on site $S = 1$ if $B > \Delta_w$, and to produce remote $S = 0$ if $B \leq \Delta_w$. We derive the labor demand equations making the following assumption about the distribution of the technology parameters.

Assumption 2. *$B \sim \Psi(B)$ normally distributed with mean μ_B and variance σ_B^2.*

In Case 3, we also consider the scenario in which p is endogenous and can be affected by firm's policy. The firm spends a_2 to decrease the risk of sexual harassment p, for instance by implementing HR policies or better management practices.[26] In our simple framework with homogenous productivity of workers and perfect competition, firms don't have incentives to

[25] Note that this assumption could be micro-founded by assuming peer effects or firm's better monitoring of workers' productivity in office.

[26] While there are still scarce evidence of appropriate interventions to reduce the risk of sexual harassment at work, Alan, Corekcioglu and Sutter (2023) provides evidence of the effectiveness of an intervention in Turkey to mitigate toxic relations in the workplace, with monetary cost of about 5,000 Euros per firm.

increase their production cost, as it would be the case if for instance they were trying to attract the most qualified workers. Hence we see Case 3 as modeling the action of firms if a social planner imposed a cost on firms through mandatory regulations to mitigate the risk of sexual harassment p.

Assumption 3. *p can be affected by firm's policy, that has a per-worker cost a_2.*

$$p = p(a_2) \text{ with } p'(a_2) < 0.$$

The production function becomes:

$$\begin{aligned} x &= a_0 L \text{ if } S = 0 \\ x &= (a_1 - a_2) L \text{ if } S = 1 \end{aligned}$$

Firms choose $S = 1$ if $B > \Delta_w + a_2$ and choose $S = 0$ if $B \leq \Delta_w + a_2$. To simplify, let's consider a linear case in which $p = -a_2 \times K$ with $K > 0$. We later explore the policy counterfactuals varying the values of K.

5.3 Equilibrium

In a perfect-sorting equilibrium, amenity prices satisfy a market-clearing condition: the supply of remote jobs coincides with the demand for remote jobs. We compare the benchmark case with no sexual harassment in which $p = 0$ for all workers (Case 1) to the case where there is $p > 0$ in which the risk of harassment is only internalized by the workers (Case 2), and by workers and firms (Case 3). We first solve for equilibrium wages, then characterize selection in each equilibrium and derive expressions for workers' and firms' rents.

5.3.1 Equilibrium wages

We solve for Δ_w for the three cases.

C1: Case 1: The equilibrium wage differential when there is no risk of sexual harassment (benchmark case) is given by

$$\Delta_{w1} = \frac{\sigma_B \mu_Z + \mu_B \sigma_Z}{\sigma_Z + \sigma_B} \tag{3}$$

Proof is in Appendix E.1.2. In the benchmark case, Δ_{w1} is increasing in μ_Z and μ_B: the higher the average disutility for remote work μ_Z, the higher the compensation needed to make the marginal worker indifferent between $S = 1$ and $S = 0$. Similarly, the larger the average productivity gap between remote and office work μ_B, the higher the offered compensation. Finally, Δ_{w1} depends on the relative heterogeneity of workers' tastes (σ_Z) compare to firms' technology (σ_B).

C2: Case 2: The equilibrium wage differential when there is a risk of sexual harassment only internalized by workers only is given by:

$$\Delta_{w2} = \frac{\sigma_B(\mu_Z + p\mu_H) + \mu_B\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}} + \sigma_B} \tag{4}$$

Proof is in Appendix E.1.3. Everything else equal, Δ_{w2} is increasing in μ_H as the higher the average disutility to sexual harassment, the higher the compensation needed to make the marginal worker indifferent between $S = 1$ and $S = 0$. Δ_{w2} depends on the relative heterogeneity of workers' taste (with respect to remote work and sexual harassment) compare to firms' technology. The sign of $\Delta_{w1} - \Delta_{w2}$ depends on the relative heterogeneity of taste in both scenarios.

C3: Case 3: The equilibrium wage differential when there is a risk of sexual harassment only internalized by workers and firms is given by:

$$\Delta_{w3} = \frac{\sigma_B(\mu_Z + p\mu_H) + \left(\mu_B + \frac{p}{K}\right)\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}} + \sigma_B} \tag{5}$$

Proof is in Appendix E.1.4. With $K > 0$ and given that $1 \geq p > 0$, we can see that $\Delta_{w2} < \Delta_{w3}$ and that Δ_{w3} is increasing in p. When firms internalize the cost of harassment in terms of workers' disutility, the wage differential between $S = 0$ and $S = 1$ increases as the probability of harassment p increases.

5.3.2 Selection and Rents

We now derive expressions to characterize selection into $S = 0, 1$ jobs and compute workers' and firms' rents in each scenario.

Case 1: Equilibrium without harassment. The selection patterns in equilibrium with no risk of harassment can be characterized as in the standard Rosen model as follows:

$$\begin{aligned}\mathbb{E}(Z|S=1,p=0) &= \mu_Z - \sigma_Z \left[\frac{\phi\left(\frac{\Delta_w-\mu_Z}{\sigma_Z}\right)}{\Phi\left(\frac{\Delta_w-\mu_Z}{\sigma_Z}\right)}\right] \\ \mathbb{E}(H|S=1,p=0) &= E(H)\end{aligned}$$

We can then derive $R_{wo1|S=1}$ the excess rent relative to what would be required to change an individual's decision to move from $S=0$ to $S=1$ as:

$$\begin{aligned}R_{wo1|S=1} &= \Delta_{w1} - \mathbb{E}(Z|S=1,p=0) \\ &= \frac{\sigma_B\mu_Z + \mu_B\sigma_Z}{\sigma_Z+\sigma_B} - \mu_Z + \sigma_Z\left[\frac{\phi\left(\frac{\mu_B-\mu_Z}{\sigma_Z+\sigma_B}\right)}{\Phi\left(\frac{\mu_B-\mu_Z}{\sigma_Z+\sigma_B}\right)}\right]\end{aligned}$$

The selection of firms choosing office work writes:

$$\begin{aligned}\mathbb{E}(B|S=0,p=0) &= \mathbb{E}(B|B\leq\Delta_{w1}) \\ &= \mu_B - \sigma_B\left[\frac{\phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}{\Phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}\right] \\ \mathbb{E}(B|S=1,p=0) &= \mathbb{E}(B|B>\Delta_{w1}) \\ &= \mu_B + \sigma_B\left[\frac{\phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}{1-\Phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}\right]\end{aligned}$$

Proof is in Appendix E.1.5.

Case 2: Equilibrium with risk of harassment only internalized by the workers. We derive $R_{wo2|S=1}$ the excess rent accruing to workers choosing $S=1$ as:

$$\begin{aligned}R_{wo2|S=1} &= \Delta_{w2} - \mathbb{E}(Z|S=1,p>0) - p\mathbb{E}(H|S=1,p>0) \\ &= \Delta_{w2} - (\mu_Z + p\mu_H) + \sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}\left[\frac{\phi\left(\frac{\Delta_{w2}-\mu_Y}{\sigma_Y}\right)}{\Phi\left(\frac{\Delta_{w2}-\mu_Y}{\sigma_Y}\right)}\right]\end{aligned}$$

Proof is in Appendix E.1.6.[27] For the firm's selection, the formula is essentially unchanged as the firm doesn't internalize the cost of harassment. We just substitute the value of Δ_{w2}.

$$\begin{aligned}
\mathbb{E}(B|S=0) = \mathbb{E}(B|B \leq \Delta_{w2}) &= \mu_B - \sigma_B \left[\frac{\phi(\frac{\Delta_{w2}-\mu_B}{\sigma_B})}{\Phi(\frac{\Delta_{w2}-\mu_B}{\sigma_B})} \right] \\
\mathbb{E}(B|S=1) = \mathbb{E}(B|B \geq \Delta_{w2}) &= \mu_B + \sigma_B \left[\frac{\phi(\frac{\Delta_{w2}-\mu_B}{\sigma_B})}{1-\Phi(\frac{\Delta_{w2}-\mu_B}{\sigma_B})} \right]
\end{aligned}$$

Case 3: Firms internalize harassment cost The formula for worker's excess rent is unchanged. We just substitute the value of Δ_{w3}.

$$\begin{aligned}
R_{wo3|S=1} &= \Delta_{w3} - \mathbb{E}(Z|S=1, p>0) - p\mathbb{E}(H|S=1, p>0) \\
&= \Delta_{w3} - (\mu_Z + p\mu_H) + \sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}} \left[\frac{\phi\left(\frac{\Delta_{w3}-\mu_Y}{\sigma_Y}\right)}{\Phi\left(\frac{\Delta_{w3}-\mu_Y}{\sigma_Y}\right)} \right]
\end{aligned}$$

We can rewrite the selection of firms as a function of p:

$$\begin{aligned}
\mathbb{E}(B|S=0) = \mathbb{E}(B|B \leq \Delta_{w3} + a_2) &= \mathbb{E}\left(B|B \leq \Delta_{w3} - \frac{p}{K}\right) \\
&= \mu_B - \sigma_B \left[\frac{\phi\left(\frac{\Delta_{w3}-\frac{p}{K}-\mu_B}{\sigma_B}\right)}{\Phi\left(\frac{\Delta_{w3}-\frac{p}{K}-\mu_B}{\sigma_B}\right)} \right] \\
\mathbb{E}(B|S=1) = \mathbb{E}(B|B > \Delta_{w3} + a_2) &= \mathbb{E}\left(B|B \geq \Delta_{w3} - \frac{p}{K}\right) \\
&= \mu_B + \sigma_B \left[\frac{\phi\left(\frac{\Delta_{w3}-\frac{p}{K}-\mu_B}{\sigma_B}\right)}{1-\Phi\left(\frac{\Delta_{w3}-\frac{p}{K}-\mu_B}{\sigma_B}\right)} \right]
\end{aligned}$$

5.4 Simulations and Policy Counterfactuals

We implement numerical simulations using our empirical parameters presented in Table E19 with the exception of firms' technology, which we simulate under different values of μ_B, σ_B, and $\sigma_{Z,H}$ respectively the mean and standard deviation of firms' productivity cost of remote work B, and the covariance between preferences over disamenities. In Case 2, we introduce the risk

[27] We also provide the rent formula assuming that Z and H are independent. Proof is in Appendix E.2.3.

of sexual harassment $p > 0$. For Case 3, the firm internalize the risk of sexual harassment by implementing a policy response K. Our baseline value is $K = 0.5$ but we explore sensitivity to alternative values in Section 5.4.3. These simulations allow us to explore some policy counterfactuals. We first characterize selection patterns under these assumptions.[28]

5.4.1 Risk of Workplace Hostility

We first show how pay differentials and sorting patterns are affected by the risk of workplace hostility. To proxy for the probability of sexual harassment p, we use our survey estimates of individuals' perceived risk of sexual harassment in the next two years. Figure 5 Panel (A) presents the wage differentials Δ_w for each scenario as a function of p. By construction, Δ_w doesn't vary with p in Case 1 as we set the risk of sexual harassment to zero. For Case 2 and 3, when p is strictly positive, the pay differential between remote and office jobs increases sharply as p increases, as firms have to pay an additional compensation to encourage workers to work on-site. This pattern is starker in Case 3 when firms internalize the risk, and compensate each worker accordingly.

We next explore selection patterns based on workers' distaste for both disamenities. Panels (B) and (C) show that following an increase in p, selection on H in office jobs ($\mathbb{E}[H|S = 1]$) increases relative to selection on Z ($\mathbb{E}[Z|S = 1]$): the inframarginal worker in office jobs has low distaste for sexual harassment when its probability is high (Panel C, Case 2), but this pattern is attenuated when the firm internalizes the risk (Case 3). In contrast, there is less sorting of workers into office jobs based on their taste for remote work (Panel B). Because of workers' preference heterogeneity, Panel (E) shows that workers' average rents in office increases sharply with positive probability of sexual harassment, in particular if the risk is internalized by the firm (Case 3). This is explained by the fact that some workers will benefit from high compensation for high p relative to what would be required to change their decision to move from remote to office jobs based solely on their distaste for sexual harassment.

According to our empirical results on gender differences in valuations for safe work environment, the model predicts that men are more likely to be observed in office jobs—despite men and women having comparable valuations for hybrid work, and are more likely to extract

[28] This exercise complements the analysis in Emanuel and Harrington (2023) that explores selection patterns based on unobservable ability. In our framework, we assume that sorting decisions into remote or office jobs are solely driven by preferences over disamenities.

higher rents. Because of the increase in workers' compensation, Panel (F) shows that firms' rents decrease. Overall, our simple model shows that the risk of hostility has implications not only in terms of workers' selection across jobs and gender segregation of the labor market, but also in terms of gender pay gaps.

5.4.2 Counterfactual Experiments

To quantify the impact of the risk of workplace hostility on pay differentials between office and remote jobs, and on workers' and firms' rents in office jobs, we explore three counterfactual experiments, keeping all other structural parameters unchanged (μ_Z, σ_Z, σ_H, $\sigma_{Z,H}$ and σ_B).[29] Results are presented in Table 7.

First, we shock the gender gap in perceived probability of sexual harassment p, such that the sample's perceived risk is aligned with men's perceived risk (17.3 percent vs. 11.7 percent). We find that this leads to a reduction by 15 percent and 18 percent of Δ_w the baseline wage differentials between office and remote jobs for Case 2 and 3 respectively (Column 1). This translates into a comparable decrease for workers' rents in office jobs (-15 percent and -20 percent for Case 2 and 3 respectively, see Column 2), and into an increase in firms' rents in office jobs between 4 percent and 7 percent (Column 3).

We compare this counterfactual exercise with an experiment in which we reduce the average productivity cost of remote work in the economy μ_B by one third.[30] To provide some intuition behind the magnitude of such shock, we use data from Barrero, Bloom and Davis (2023) on the prevalence of work from home over time. We compute the average fraction of the week worked from home each year and in each industry. We then compute the difference between the value at the peak of the Covid-19 pandemic in 2020 to the value in 2023 for each industry, $\Delta WFH_{2020-2023}$, and look at the distribution of this variable. Our goal is to capture cross-

[29] In Appendix E.3, we also present simulations varying the covariance of preferences over disamenities $\sigma_{Z,H}$ (Figure E15), and show that the selection patterns are minimized when preferences over remote work and hostility are independent. We also explore the sensitivity of the results to the variance in firms' productivity cost of remote work σ_B (Figure E16).

[30] See Figure E12 for the graphical simulations. Δ_w is an increasing function of μ_B, as firms are willing to pay an additional compensation to workers for working on-site. In terms of selection into office jobs, as μ_B decreases, the inframarginal worker's preference for remote work in office job decreases (Panel B), however this pattern is less pronounced with positive probability of sexual harassment (Cases 2 and 3). Similarly, we observe greater sorting across remote and office jobs based on disutility for sexual harassment (Panel C). The model predicts that with a decrease in the productivity cost of remote work for firms, men are more likely to be observed in office jobs—despite men and women having comparable valuations for hybrid work.

industry variations in the technological innovations implemented to facilitate remote work during the Covid-19 pandemic. Decreasing μ_B by one third is equivalent to moving from the median industry in terms of return to office (characterized by a $\Delta WFH_{2020-2023}$ of -45 percent) to the industry in the 75^{th} percentile (characterized by a $\Delta WFH_{2020-2023}$ of -30 percent). As expected, this shock on μ_B has large negative effects on firms' rents in office jobs, with a decrease ranging from 10 to 23 percent. Interestingly, for Case 2 and 3, we find that the effects on pay differentials (-20 to -23 percent) and workers' rents in office (-28 to -35 percent) are only marginally higher compared to the effect of the shock on perceived probability of sexual harassment p.

Finally, we explore the counterfactual experiment in which we shock the gender gap in preferences for sexual harassment μ_H, such that the sample's preferences are aligned with men's preferences (moving from a WTP of 36.94 percent to 22.59 percent of the wage).[31] We find that this leads to a reduction of the pay differential between remote and office jobs Δ_w by 5 to 6 percent for Case 2 and 3, and translates into much modest changes in workers' and firms' rents.

Overall, these decomposition results rank gender differences in the risk of hostility at work as an important driver of the remote pay penalty, with an impact comparable to that of a large technological shock facilitating the provision of remote work by firms.

5.4.3 Firms' Policy

We finally explore how selection patterns and pay differentials evolve when we vary the policy parameter K, meaning the inverse of the cost parameter that the social planner imposes on firms to mitigate the risk of sexual harassment. Figure E14 presents simulations varying K for Case 3 only. As K increases, the economy converges to Case 2 in which the risk of harassment is only internalized by workers. Panel (A) illustrates that as K decreases, meaning firms are bearing the preventing cost of harassment, the pay differential between remote and office jobs increases. Panels (B) and (C) show that following a decrease in K, selection in office jobs both in terms of Z and H decreases, to a point where selection on these amenities is virtually eliminated. Workers' excess rent (Panel E) increases a little, but only because of the effect on wage differentials Δ_w, and not because of workers' heterogeneity, as selection patterns are less

[31] See Figure E13 for the graphical simulations.

marked for both amenities. Mechanically, Panel (D) shows that firms' average productivity cost of remote work B in office jobs decreases as K decreases, hence their excess rents (Panel F).

These simple policy simulations provide some insights on the impact of firms' policies on the selection of workers across jobs and on the excess rents the average worker and firm can extract in each job. By bearing the preventing cost of harassment, firms limit sorting into office jobs based on preferences for amenities because workers' compensation increases uniformly. As a consequence, the effects on workers' rents in office jobs are ambiguous, despite a decreasing role for workers' heterogeneity. If firms are not able to differentially screen workers based on their disutility for sexual harassment, compensating the average worker for a risk of sexual harassment in office jobs could theoretically translate into higher average rents. Given the legal and technological constraints on firms' ability to screen and adjust wages based on workers' preferences for amenities, future research should focus on cost-effective interventions to reduce workplace hostility, as it has meaningful effects on sorting across jobs and occupations.

6 Conclusion and Discussion

In this paper, we examine what contributes to workplace hostility and how much individuals are willing to pay to avoid it. We define and empirically validate workplace hostility attributes, then conduct a pre-registered hypothetical choice experiment with students, recent graduates, and alumni from a large public university in Canada. Our validated definition of hostility includes three key factors: aggression, lack of inclusion, and sexual harassment, all of which are highly valued non-wage job amenities. Using a stated-preference approach, we find that individuals are willing to forgo a significant portion of their wages to avoid hostile work environments. This willingness-to-pay (WTP) varies by the level of teamwork and remote work involved.

While both men and women value a workplace free of hostility, women have a stronger preference for inclusive workplaces and work environments free of sexual harassment. These gender differences in preferences are statistically significant at the one percent level. Men and women value professional growth, hybrid work, and teamwork equally.

This paper also characterizes empirically the demand for hostility-free workplaces. We

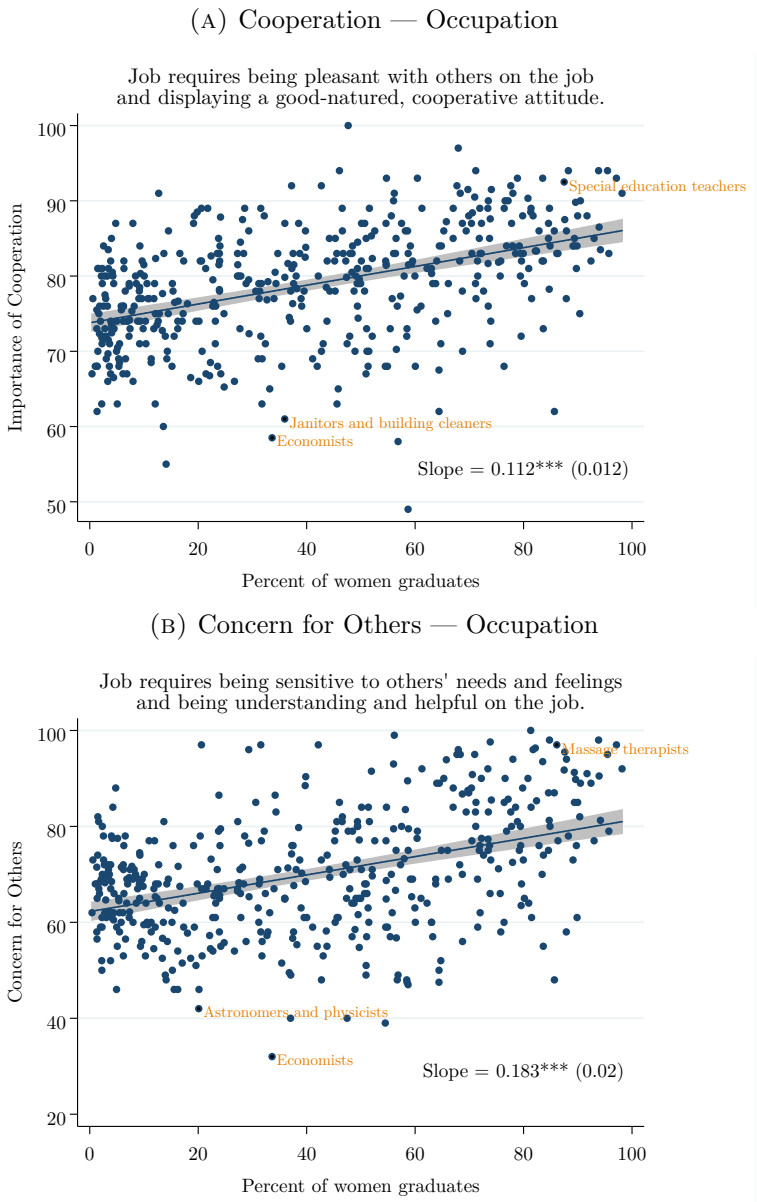
show that individuals' WTP estimates to avoid hostility are relatively stable across the wage distribution. They do not increase with workers' outside options in the labor market, but rather suggest that workplace quality may play a significant role in individuals' decisions to join the labor force or stay with a specific firm. Our findings also suggest that hostility from management imposes a greater burden on women than peer hostility. Finally, we provide evidence that individuals tend to underestimate the importance of an hostility-free environment to others, suggesting that imperfect information and lack of coordination may contribute to the persistence of workplace hostility, despite widespread aversion to it.

We further explore the interaction between hostility at work and workplace arrangements. We show that women's demand for hybrid work is related to hostile environments present or expected to be present at the office. We use our empirical estimates of preferences for workplace amenities and a simple model of compensating differentials to explore policy counterfactuals. We find that when some workers have a distaste for sexual harassment, an exogenous increase in the probability of sexual harassment will impact the average workers' rents in office jobs, because of workers' preference heterogeneity. Our model shows that this mechanism has implications not only in terms of workers' selection across jobs and gender segregation of the labor market, but also in terms of gender pay gaps and remote pay penalty. Finally, we show that when firms bear the costs of preventing harassment, this reduces the extent to which workers sort into office jobs based on preferences for amenities while it simultaneously increases workers' compensation, which produces ambiguous effects on workers' rents. Since legal and technological barriers limit firms' ability to screen workers or adjust wages based on their preferences for workplace amenities, future research should prioritize identifying cost-effective strategies to mitigate hostility, which plays a critical role in job and occupational sorting.

This paper raises new questions related to the impact of workplace hostility on the economy. While our respondents indicate that they prefer to work in an environment that is free of hostility, it is unclear how workplace hostility impacts motivation, productivity, and quality of work. Future work should explore these effects, to better understand if the prevalence of hostility is solely due to a lack of coordination, as suggested by our results on individuals' perceptions of others' valuation for hostility, or because of workplace hostility has heterogenous effects on productivity.

Tables and Figures

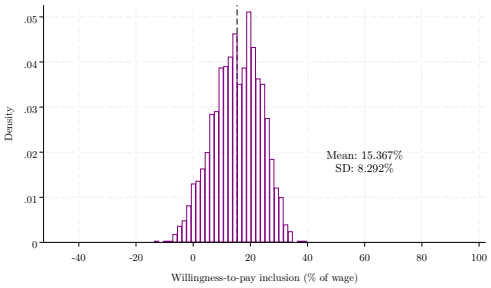
FIGURE 1. Cooperation, Concern for Others, and Occupational Segregation by Gender



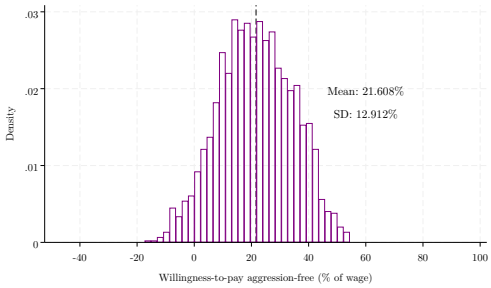
Notes: This figure shows the correlation at the occupation-level between the percentage of women graduates computed from the CPS 2018-2019 and, the importance of cooperation (Panel A) and concern for others (Panel B) computed from the O*NET classification. The importance of cooperation is computed from the question "Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude". Concern for others is computed from the question "Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job".

FIGURE 2. Individual WTP Distributions for Hostility Attributes and Work Environments

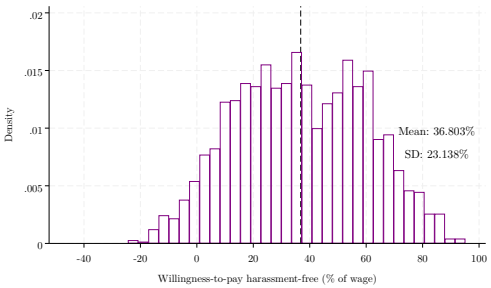
(A) Inclusion



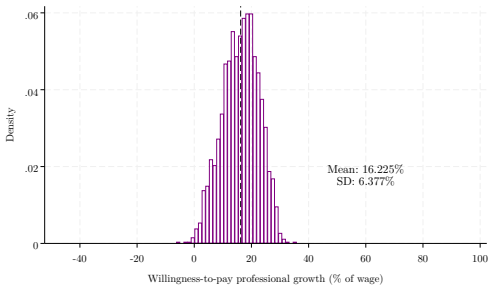
(B) Aggression-Free Environments



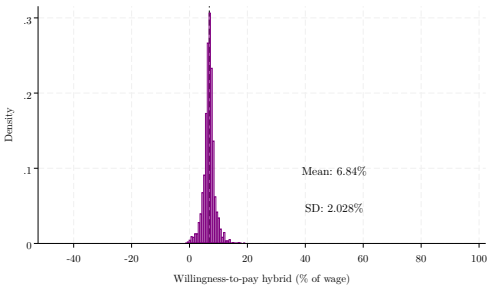
(C) Sexual Harassment-Free Environments



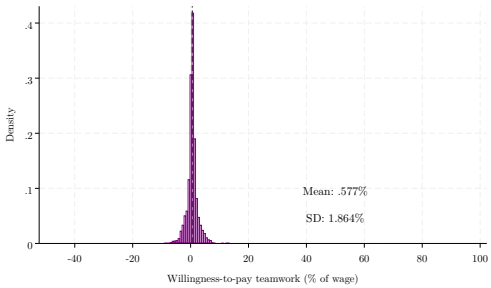
(D) Professional Growth



(E) Hybrid Work



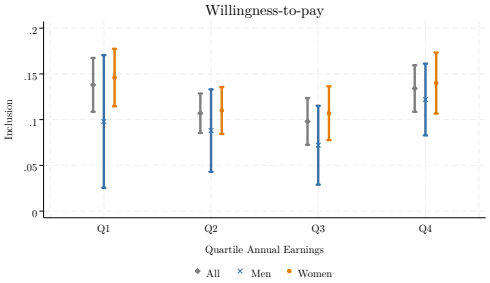
(F) Teamwork



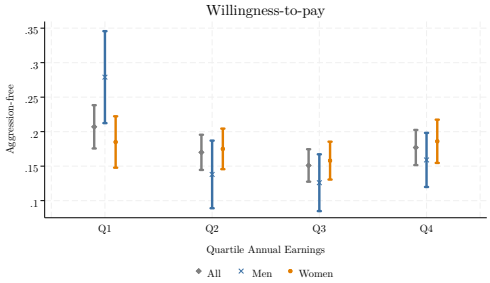
Notes: This figure shows individual WTP distributions for each hostility amenities (inclusion, aggression-free and sexual harassment-free environments), professional growth, and working arrangements (hybrid, teamwork).

FIGURE 3. WTP Across the Earning Distribution

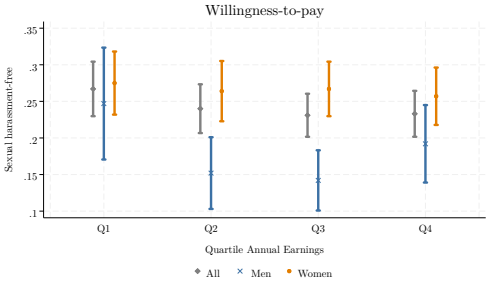
(A) Inclusion



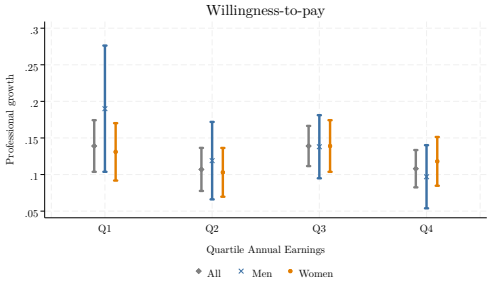
(B) Aggression-Free Environments



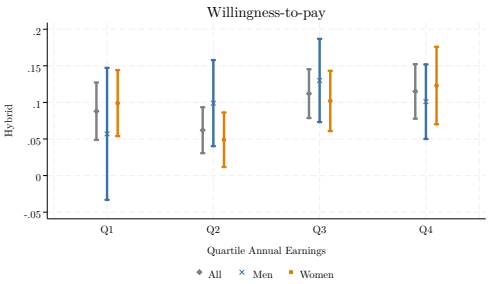
(C) Sexual Harassment-Free Environments



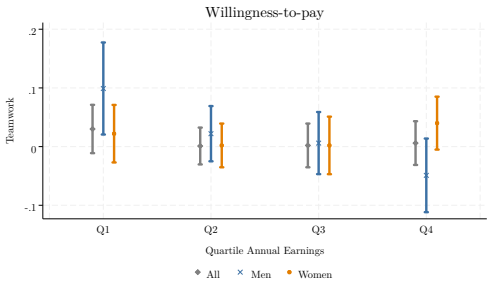
(D) Professional Growth



(E) Hybrid Work



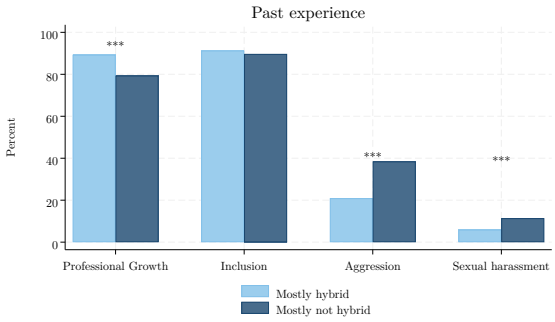
(F) Teamwork



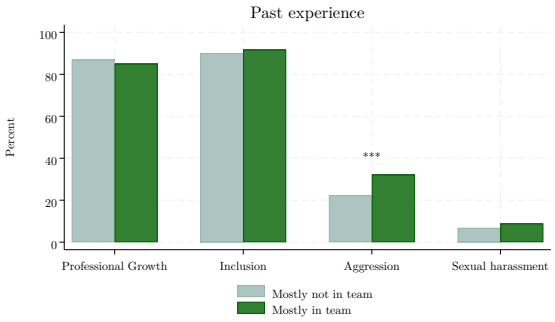
Notes: This figure shows respondents' WTP for each hostility amenities (inclusion, aggression-free and sexual harassment-free environments), professional growth, and working arrangements (hybrid, teamwork) by quartile of reported earnings.

FIGURE 4. Past Experience and Perceived Risk of Hostility by Working Arrangements

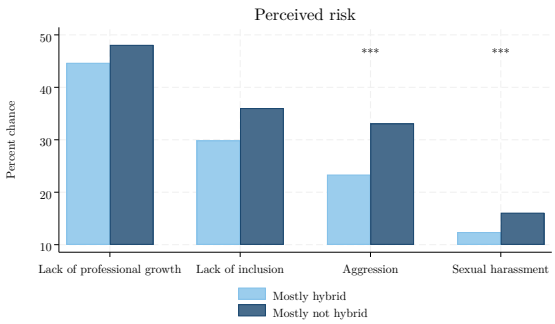
(A) Experience of Hostility — Hybrid



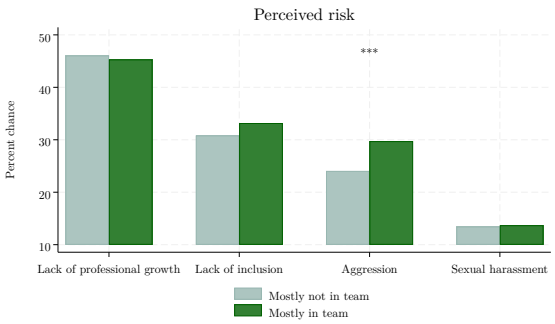
(B) Experience of Hostility — Teamwork



(C) Risk of Hostility — Hybrid



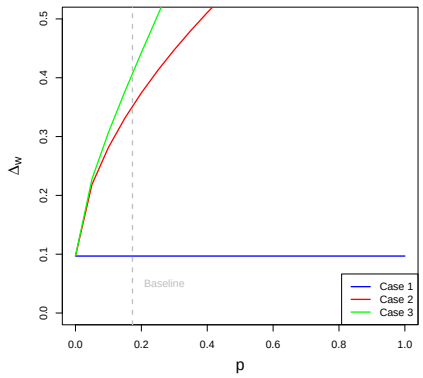
(D) Perceived Risk of Hostility — Teamwork



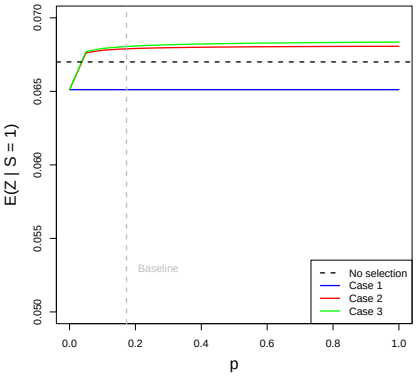
Notes: This figure shows respondents' reported measure of past experience of hostility and perceived risk of experiencing hostility in the next two years for each hostility amenities (inclusion, aggression-free and sexual harassment-free environments) and professional growth, separately by working arrangements, namely whether the respondent works mostly remote versus mostly in office (Panel A and C), and whether the respondent works mostly in team or solo (Panel B and D).

FIGURE 5. Simulations — By Perceived Probability of Sexual Harassment p

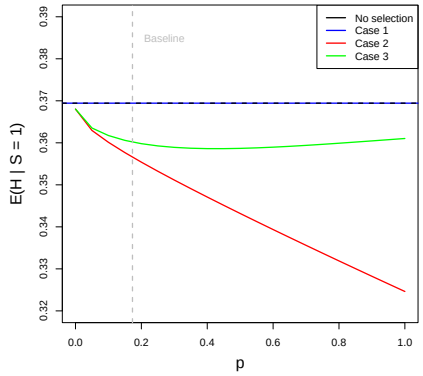
(A) Wage Differentials Δ_w



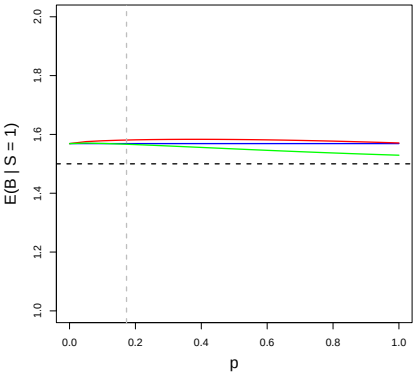
(B) Workers' Preference for Hybrid Work in Office Jobs $\mathbb{E}(Z|S=1)$



(C) Workers' Distaste for Sexual Harassment in Office Jobs $\mathbb{E}(H|S=1)$

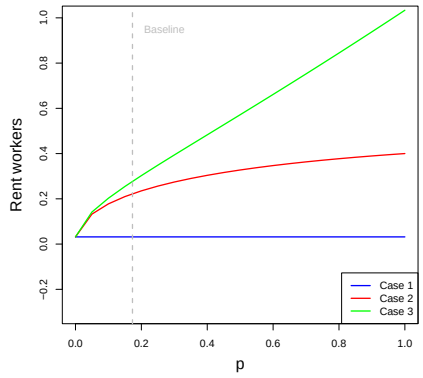


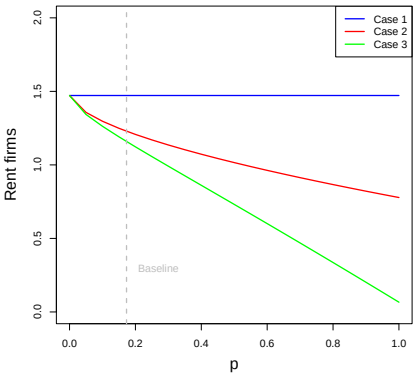
(D) Firms' Productivity Cost of Remote Work in Office Jobs $\mathbb{E}(B|S=1)$



(E) Workers' Excess in Office Jobs

(F) Firms' Excess Rents in Office Jobs





Notes: Panel A compares Δ_w the wage differentials between on-site and remote work across the three scenarios for various values of p, assuming $\sigma_B = 1$, $\mu_B = 1.5$, $\sigma_{Z,H} = 0.1$ and using parameters from Table E19, Panel B compares workers' selection on Z, Panel C compares workers' selection on H, Panel D compares firms' selection on B, Panel E compares workers' excess rents, across the three scenarios: Case 1 no risk of sexual harassment, Case 2 risk of sexual harassment internalized by workers only, Case 3 risk of sexual harassment internalized by workers and firms.

Table 1 – Description of Sociodemographic and Educational Sample Characteristics

	All	Enrolled Students	Graduated Students	Alumni
Sociodemographic characteristics				
Women	0.69	0.64	0.74	0.70
	(0.46)	(0.48)	(0.44)	(0.46)
Men	0.29	0.33	0.24	0.27
	(0.45)	(0.47)	(0.43)	(0.45)
Non-Binary	0.02	0.03	0.02	0.02
	(0.15)	(0.16)	(0.13)	(0.15)
Age	27.52	22.21	22.96	34.07
	(10.64)	(4.00)	(2.45)	(13.00)
Black	0.03	0.04	0.04	0.02
	(0.17)	(0.19)	(0.19)	(0.15)
Chinese	0.28	0.33	0.27	0.24
	(0.45)	(0.47)	(0.45)	(0.43)
South Asian	0.19	0.22	0.26	0.14
	(0.40)	(0.42)	(0.44)	(0.34)
White	0.23	0.11	0.13	0.36
	(0.42)	(0.31)	(0.34)	(0.48)
Other	0.27	0.30	0.30	0.24
	(0.45)	(0.46)	(0.46)	(0.43)
First generation college graduate	0.20	0.15	0.18	0.26
	(0.40)	(0.36)	(0.38)	(0.44)
Has children	0.10	0.01	0.01	0.22
	(0.30)	(0.08)	(0.09)	(0.41)
Major				
Psychology	0.36	0.15	0.19	0.62
	(0.48)	(0.36)	(0.39)	(0.49)
Sociology	0.10	0.10	0.07	0.10
	(0.29)	(0.31)	(0.26)	(0.30)
Biology	0.07	0.09	0.13	0.03
	(0.25)	(0.28)	(0.33)	(0.17)
Economics	0.06	0.05	0.03	0.08
	(0.23)	(0.21)	(0.16)	(0.28)
Commerce	0.06	0.02	0.08	0.07
	(0.23)	(0.16)	(0.28)	(0.26)
Computer Science	0.05	0.10	0.05	0.01
	(0.21)	(0.29)	(0.21)	(0.08)
Engineering	0.03	0.06	0.02	0.00
	(0.16)	(0.23)	(0.15)	(0.03)
Other	0.33	0.53	0.48	0.10
	(0.47)	(0.50)	(0.50)	(0.30)
N	2,048	724	436	888

Notes: This table presents descriptive statistics for sociodemographic characteristics and majors of whole experimental sample (column 1), and separately by participant status, with enrolled students (column 2), graduated students (column 3) and alumni (column 4).

Table 2 – Description of Sample Labor Market Characteristics, split by Seniority

	Mean	S.D	Min	Max	N
Panel A. Students (Enrolled and Graduated)					
Employment Status					
Full-time	0.10	0.30	0	1	1,160
Unemployed (and job seeking)	0.12	0.33	0	1	1,160
Part-Time	0.02	0.13	0	1	1,160
Student	0.10	0.30	0	1	1,160
Not in paid work	0.00	0.00	0	0	1,160
Other	0.66	0.47	0	1	1,160
GPA	3.41	0.45	2	4	1,116
Accepted a job	0.33	0.47	0	1	436
Annual salary (CAD)	7,158	22,303	0	300,000	1,160
Panel B. Alumni					
Employment Status					
Full-time	0.66	0.47	0	1	888
Unemployed (and job seeking)	0.05	0.23	0	1	888
Part-Time	0.11	0.32	0	1	888
Student	0.00	0.00	0	0	888
Not in paid work	0.11	0.31	0	1	888
Other	0.04	0.20	0	1	888
Teamwork	0.93	0.26	0	1	888
Fully on-site	0.32	0.47	0	1	888
Hybrid	0.50	0.50	0	1	888
Fully remote	0.18	0.39	0	1	888
Worked Hours	35.02	14.58	0	100	888
Annual salary (CAD)	76,349	60,719	0	300,000	887

Notes: This table presents descriptive statistics for labor market outcomes for enrolled and graduated students (Panel A) and alumni (Panel B).

TABLE 3 – EXPERIMENTAL SAMPLE - SUMMARY STATISTICS HOSTILITY

	All	Women	Men	*P* Diff.	Students	Alumni	*P* Diff.	Non-white	White	*P* Diff.	Male-Dominated Fields	Female-Dominated Fields	*P* Diff.
Panel A. Past experience of													
professional growth	0.74	0.75	0.71	0.04	0.64	0.86	0.00	0.72	0.80	0.00	0.73	0.74	0.62
	(0.44)	(0.43)	(0.46)		(0.48)	(0.35)		(0.45)	(0.40)		(0.45)	(0.44)	
inclusion	0.89	0.89	0.88	0.60	0.87	0.91	0.01	0.88	0.91	0.04	0.89	0.89	0.82
	(0.32)	(0.31)	(0.32)		(0.33)	(0.29)		(0.33)	(0.28)		(0.31)	(0.32)	
aggression	0.63	0.64	0.61	0.21	0.91	0.26	0.00	0.68	0.46	0.00	0.74	0.61	0.00
	(0.48)	(0.48)	(0.49)		(0.29)	(0.44)		(0.47)	(0.50)		(0.44)	(0.49)	
sexual harassment	0.16	0.17	0.13	0.02	0.23	0.08	0.00	0.18	0.11	0.00	0.18	0.16	0.35
	(0.37)	(0.38)	(0.34)		(0.42)	(0.27)		(0.38)	(0.31)		(0.38)	(0.36)	
Panel B. Perceived risk of experiencing... within the next 2 years (in percent)													
lack of professional growth	46.35	46.71	45.46	0.32	46.83	45.73	0.34	46.29	46.57	0.83	45.38	46.52	0.48
	(25.56)	(25.12)	(26.63)		(23.42)	(28.12)		(24.70)	(28.31)		(24.74)	(25.70)	
lack of inclusion	35.40	36.54	32.52	0.00	38.15	31.80	0.00	36.83	30.50	0.00	34.73	35.51	0.62
	(24.90)	(24.91)	(24.67)		(23.29)	(26.44)		(24.45)	(25.80)		(23.99)	(25.05)	
aggression	29.60	29.58	29.64	0.96	32.02	26.43	0.00	30.41	26.81	0.01	30.07	29.52	0.72
	(24.44)	(23.92)	(25.73)		(22.95)	(25.94)		(24.15)	(25.23)		(25.01)	(24.35)	
sexual harassment	17.35	19.60	11.70	0.00	20.25	13.55	0.00	17.71	16.11	0.13	15.40	17.67	0.07
	(20.05)	(20.59)	(17.42)		(21.17)	(17.80)		(20.04)	(20.09)		(19.94)	(20.06)	
N	2,048	1,464	584		1,160	888		1,583	465		295	1,753	

Notes: This table presents descriptive statistics for the reported prevalence of past experienced hostility (Panel A) and perceived risk of experiencing hostility within the next two years (Panel B) measured during the post-experiment survey, for the whole experimental sample, and separately by gender, participants status (students or alumni), race and field of study.

Table 4 – Willingness-to-Pay Estimates to avoid Hostility at Work by Gender

	Mixed Logit (Median)		
	Full Sample	Women	Men
Inclusion	0.143***	0.151***	0.120***
vs. Lack of Inclusion	(0.004)	(0.005)	(0.008)
Aggression-free	0.195***	0.200***	0.170***
vs. Risk of Aggression	(0.004)	(0.005)	(0.008)
Harassment-free	0.309***	0.341***	0.199***
vs. Risk of Harassment	(0.006)	(0.007)	(0.009)
Professional growth	0.150***	0.153***	0.140***
vs. Lack of Professional growth	(0.005)	(0.006)	(0.009)
Hybrid	0.066***	0.065***	0.071***
vs. Full on-site	(0.006)	(0.008)	(0.011)
Teamwork	0.006	0.007	0.011
vs. Solo	(0.007)	(0.008)	(0.011)
N	26,624	18,395	7,592

Notes: This table presents median willingness-to-pay estimates from mixed logit model assuming normal distribution for marginal values of amenities, for each hostility attributes (lack of inclusion, aggression, sexual harassment) and for professional growth and working arrangements (hybrid work and teamwork) for the whole experimental sample and separately by gender.

Table 5 – Willingness-to-Pay Estimates to avoid Hostility at Work

	Baseline Mixed logit (Median)	Standard logit	Probit	Interacted model	Mixed logit (Mean)
	(1)	(2)	(3)	(4)	(5)
Inclusion	0.143***	0.119***	0.118***	0.133***	0.137***
vs. Lack of Inclusion	(0.004)	(0.005)	(0.005)	(0.013)	(0.004)
Aggression-free	0.195***	0.172***	0.171***	0.218***	0.184***
vs. Risk of Aggression	(0.004)	(0.005)	(0.005)	(0.011)	(0.004)
Harassment-free	0.309***	0.265***	0.265***	0.296***	0.280***
vs. Risk of Harassment	(0.006)	(0.006)	(0.006)	(0.010)	(0.006)
Professional growth	0.150***	0.133***	0.133***	0.165***	0.147***
vs. Lack of Professional growth	(0.005)	(0.005)	(0.006)	(0.018)	(0.005)
Hybrid	0.066***	0.070***	0.069***	0.090***	0.066***
vs. Full on-site	(0.006)	(0.007)	(0.007)	(0.012)	(0.007)
Teamwork	0.006	0.003	0.005	0.019	0.007
vs. Solo	(0.007)	(0.007)	(0.007)	(0.014)	(0.003)
N	26,624	26,624	26,624	26,624	26,624

Notes: This table presents median willingness-to-pay estimates for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) for the full experimental sample from various specifications. Column 1 presents the baseline specification with median willingness-to-pay estimates from a mixed logit model assuming normal distribution for marginal values of amenities. Column 2 presents estimates from standard logit model. Column 3 presents estimates from probit model. Column 4 presents average WTP estimates from standard logit model with two-way interactions between amenities. Column 5 presents mean willingness-to-pay estimates from a mixed logit model assuming normal distribution for marginal values of amenities.

Table 6 – WTP and Treatment with Risk of Sexual Harassment

	Treatment Without Harassment	Treatment With Harassment	p-value diff.
Panel A. Whole sample			
Inclusion	0.131***	0.098***	0.092
vs. Lack of Inclusion	(0.000)	(0.011)	
Aggression-free	0.186***	0.000	.
vs. Risk of Aggression	(0.000)	.	
Professional growth	0.142***	0.224***	0.000
vs. Lack of Professional growth	(0.000)	(0.012)	
Hybrid	0.065***	0.099***	0.079
vs. Full on-site	(0.000)	(0.015)	
Teamwork	0.004	0.020	0.419
vs. Solo	(0.638)	(0.270)	
N			14,600
Panel B. Men			
Inclusion	0.123***	0.078***	0.204
vs. Lack of Inclusion	(0.000)	(0.019)	
Aggression-free	0.174***	0.000	.
vs. Risk of Aggression	(0.000)	.	
Professional growth	0.119***	0.208***	0.005
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.084***	0.090***	0.855
vs. Full on-site	(0.000)	(0.003)	
Teamwork	0.017	0.055	0.262
vs. Solo	(0.290)	(0.086)	
N			4,182
Panel C. Women			
Inclusion	0.136***	0.106***	0.207
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.192***	0.000	.
vs. Risk of Aggression	(0.000)	.	
Professional growth	0.152***	0.225***	0.001
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.057***	0.101***	0.074
vs. Full on-site	(0.000)	(0.000)	
Teamwork	-0.001	0.008	0.720
vs. Solo	(0.939)	(0.724)	
N			10,061

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (llack of inclusion, aggression, sexual harassment), for professional growth, and for working arrangements (hybrid work and teamwork) restricting the sample to job scenarios without sexual harassment (Column 1), or with sexual harassment (Column 2). The p-value testing for different estimates between subgroups are reported in Column 3.

Table 7 – Counterfactual Experiments

	Pay differential Office vs. Remote Δ_w	Workers' Rents	Firms' Rents
Counterfactual 1: Closing the gender gap in perceived probability of sexual harassment p			
Case 1	0%	0%	0%
Case 2	-14.85%	-14.63%	4.10%
Case 3	-18.69%	-20.21%	6.76%
Counterfactual 2: Reducing the average productivity cost of remote work μ_B by 1/3			
Case 1	-10.26%	-21.16%	-10.26%
Case 2	-22.83%	-35.37%	-22.83%
Case 3	-19.71%	-28.43%	-19.71%
Counterfactual 3: Closing the gender gap in distaste for sexual harassment μ_H			
Case 1	0%	0%	0%
Case 2	-5.92%	1.76%	1.64%
Case 3	-5.11%	1.42%	1.69%

Notes: This table presents results of counterfactuals experiments on pay differentials between remote and office jobs, workers' and firms' rents from the model simulations. Effects are presented in percent change of the baseline specification. We separate case 1 (no risk of sexual harassment) from case 2 (risk of sexual harassment internalized by workers only) and case 3 (risk of sexual harassment internalized by both workers and firms). In counterfactual 1, we close the gender gap in perceived probability of sexual harassment p, so that the sample adopts men's perceived risk. Counterfactual 2 reduces the average productivity cost of remote work μ_B by 1/3. Finally, in counterfactual 3 we shock the sample's preferences so that the gender gap in distaste for sexual harassment is closed.

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Appendix to

Workplace Hostility

Manuela R. Collis and Clémentine Van Effenterre

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A Motivating Evidence

We use a large-sample representative dataset for the United States, namely the January 2018-December 2019 monthly Current Population Survey (CPS). The (CPS) is a monthly survey conducted by the U.S. Census Bureau to gather comprehensive labor force and demographic information from a representative sample of households in the United States. We use their sample of 25-60 year old labor market participants with at least a Bachelor's degree (to match our empirical setting), and we match each occupation from the CPS with the Occupational Information Network (O*NET) classification.[A.1] O*NET is an online database that provides detailed information on various occupations, including job tasks, skills, knowledge requirements, and other relevant attributes. While the O*NET classification doesn't contain direct measure of workplace hostility prevalence by occupation, it measures various occupation characteristics. We select two characteristics which relate to the workplace climate: the average occupation score for "Importance of cooperation" and "Concern for others". The importance of cooperation is computed from the question "Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude". Concern for others is computed from the question "Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job". Figure 1 presents the correlation between the share of female graduates by occupations on one hand, and the importance of cooperation (Panel A) and concern for others (Panel B) on the other hand.[A.2] We report the coefficients and standard errors of a linear regression where we regress the share of female graduates on each O*NET index separately. We find a positive relationship between the share of female graduates in an occupation, and the importance of cooperation and concern for others.

This occupational segregation is reflected more broadly by sectors. We follow Wiswall and Zafar (2018) and create six broad occupation groups: science, business, government, education, manufacturing & agriculture, and services & trade. Figure **??** show a positive relationship between the "importance of cooperation" and "concern for others," respectfully, and the percent of women graduates in a given industry, confirming the patterns of gender segregation across sectors and along the occupation attributes.

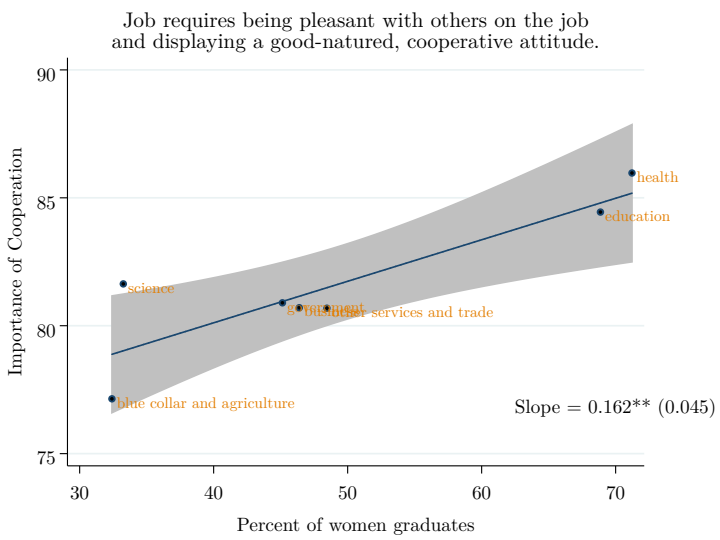
[A.1] To do so, we use crosswalks between census code (in CPS), SOC Code, and ONET occupation codes.

[A.2] We observe similar patterns when we don't restrict the sample to Bachelor graduates. Results are available upon request.

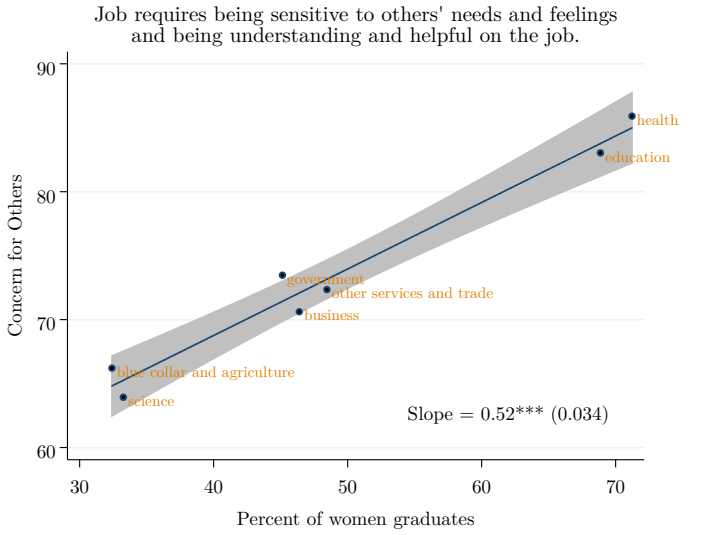
However, these correlational results are only descriptive in nature and therefore this pattern of gender segregation across occupations that we observe in Figure 1 and Figure A1 could instead reflect an alternative relationship such as differences in skills, in preferences for workplace attributes or simply differences in tastes for occupations/industries. Moreover, other non-wage attributes could be correlated with these socio-emotional skills requirements. Therefore, the presence of these alternative explanations makes it challenging to assess the impact of a hostile workplace on worker sorting based on these observational data. We overcome this data limitation with an experimental approach, in which respondents are instructed that the jobs vary only in the listed characteristics, and are otherwise identical.

FIGURE A1. Cooperation, Concern for Others, and Occupational Segregation by Gender

(A) Cooperation — Industry



(B) Concern for Others — Industry



Notes: This figure shows the correlation at the industry-level between the percentage of women graduates computed from the CPS 2018-2019 and, the importance of cooperation (Panel A) and concern for others (Panel B) computed from the O*NET classification. The importance of cooperation is computed from the question "Job requires being pleasant with others on the job and displaying a good-natured, cooperative attitude". Concern for others is computed from the question "Job requires being sensitive to others' needs and feelings and being understanding and helpful on the job".

B Workplace Hostility Definition

B.1 Procedures of Pilot Study (Validation of Workplace Hostility Attributes)

Specifically, we recruited 200 participants through the platform *Prolific*. To be eligible for participation, individuals had to be residents of either Canada or the United States, fluent in English, and completed at least 100 studies with a minimum approval rate of 95 percent. Furthermore, in order to resemble our experimental sample, participants had to be enrolled or to have completed a bachelor degree or more. Lastly, we screened participants using a simple attention check question. The study was advertised as a 10-minute academic study in exchange for USD 2.50 in fixed compensation which translates into an hourly rate of USD 15 or CAD 19.70. This impression survey was conducted on June 18, 2023.

Results are presented in Appendix B.3. First, we asked participants to report how likely it is that each hostility attribute contributes to a hostile work environment. Our outcome of interest was a continuous variable from -100 ("extremely unlikely") to 100 ("extremely likely"). Figure B2 presents the distribution of answers separately by gender and reports the p-value of the test for the gender difference. Our results show that women are significantly more likely than men to declare that the lack of inclusion, aggression and sexual harassment contribute to a hostile work environment. Turning to our choice experiment, Figure B4 shows that when presented with a negative scenario (see Table C4 column 2) on i) "Lack of Inclusion", ii) "Climate + Lack of Inclusion" and iii) all negative hostility attributes, female respondents report a higher hostility level than male respondents. Figure B5 shows that there are small and marginally significant gender differences in terms of experience of hostility for "Lack of Inclusion" but no differences in terms of perceived risk of hostility at a workplace in the next two years (Figure B6). Overall, this impression survey empirically validates that the workplace attributes don't completely overlap, and capture different degrees and natures of hostility at work. It also reveals widespread gender differences in perceptions of hostility, that cannot be fully explained by differences in past experience and perceived risk of hostility at a workplace. To formally test our hypotheses, we turn to a pre-registered choice experiment.

The final sample consists of 200 participants with an average age of 29, 50 percent of whom are women and 50 percent are not white. In terms of working conditions, 57.50 percent of

them work full-time. 44 percent work fully on-site, while the rest work partially on-site and partially remote (35 percent) or fully remote (21 percent). 15 percent perform all of their work in teams, and 14 percent work entirely on their own. The median annual salary is $35,500, for a median working week of 40 hours.

The impression survey consisted of two parts. In the first part of the survey, we first asked the respondents to describe a hostile work environment in at least three full sentences. Next, we asked them how likely it was that the identified workplace attributes contribute to a hostile work environment, where each attribute was presented separately and in randomized order. Next, serving as a pilot for the main experiment, we provided them with the description of a work environment which contained a randomly varied number of the workplace attributes. They saw nine different combinations. Each time, they were asked to rate the level of hostility of the workplace presented to them. This was followed by a basic follow-up questionnaire. The questionnaire is presented in Appendix B.2.

B.2 Questionnaire Pilot

1. In at least three full sentences, how would you describe a hostile work environment?

2. How likely is it that the lack of work satisfaction and opportunities for growth contributes to a hostile work environment?

    - Extremely unlikely
    - Somewhat unlikely
    - Neither likely nor unlikely
    - Somewhat likely
    - Extremely likely

3. How likely is it that the lack of inclusion contributes to a hostile work environment?

    - Extremely unlikely
    - Somewhat unlikely
    - Neither likely nor unlikely
    - Somewhat likely
    - Extremely likely

4. How likely is it that aggression contributes to a hostile work environment?

    - Extremely unlikely
    - Somewhat unlikely
    - Neither likely nor unlikely
    - Somewhat likely
    - Extremely likely

5. How likely is it that sexual harassment contributes to a hostile work environment?

    - Extremely unlikely
    - Somewhat unlikely

- Neither likely nor unlikely
- Somewhat likely
- Extremely likely

6. In this portion of the study, we want to learn about your impression of a set of work environment descriptions. Specifically, you will be presented with nine scenarios. Each scenario will provide you with a description of the work environment. You are then asked to rate how hostile you think the work environment is.

7. Below, we ask you one understanding question. Since this is part of a research study, we want to make sure you understand what we ask you to do. You are able to continue with this survey once you answered the question correctly. Understanding Questions: In each scenario, what are you asked to do?

    - Close my eyes and randomly select one of the three job offers.
    - Carefully read the description of the work environment and indicate how hostile I find this work environment to be.

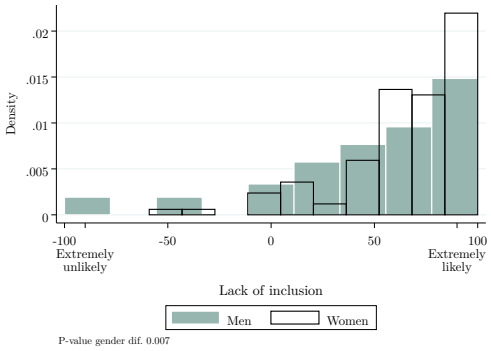
8. Imagine you are offered a job. You learn about the work environment of that job through reviews of past employees. Please review the job and indicate how hostile you would rate that work environment. How hostile do you rate the above description of a work environment?

    - Not at all hostile
    - Somewhat hostile
    - Very hostile
    - Extremely hostile

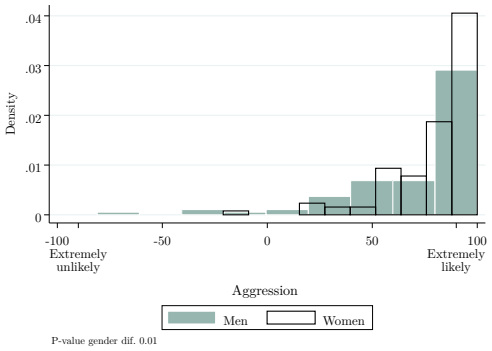
B.3 Pilot Results

FIGURE B2. Perception of Hostile Work Environment by Hostility Attributes — Prolific Respondents

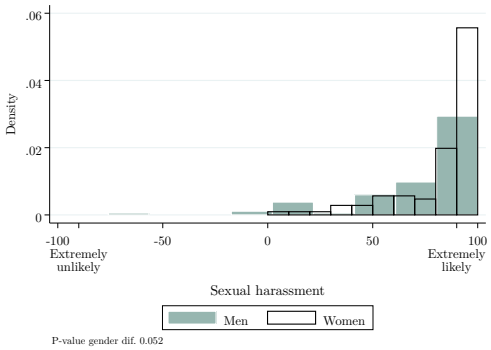
(A) Lack of Inclusion



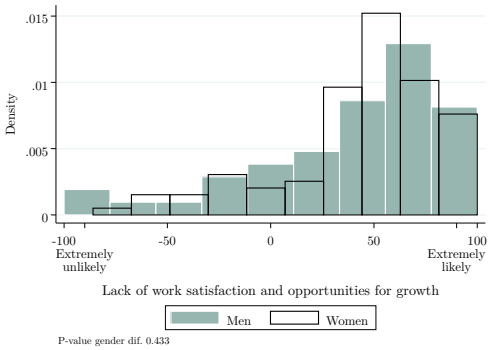
(B) Aggression



(C) Sexual Harassment

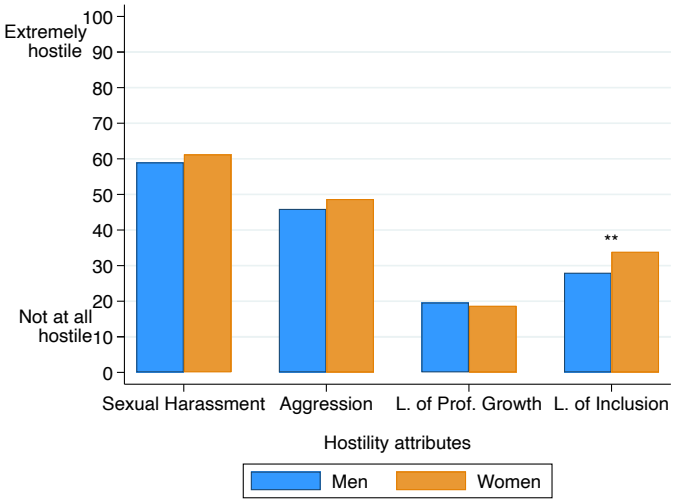


(D) Lack of Professional Growth



Notes: This figure shows the distribution of perceived hostility of hostility attributes to a work environment, separately by gender. We cross-randomized hostility attributes and ask "How likely is it that X contributes to a hostile work environment?".

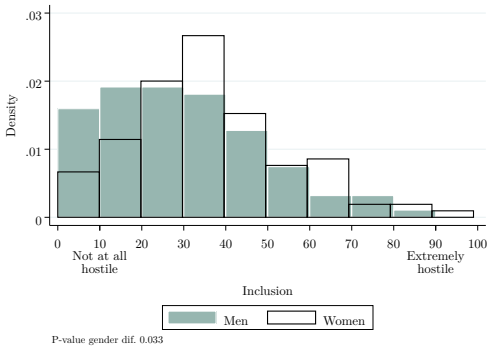
FIGURE B3. Average Hostility Ratings of Job Scenarios by Hostility Attributes — Prolific Respondents



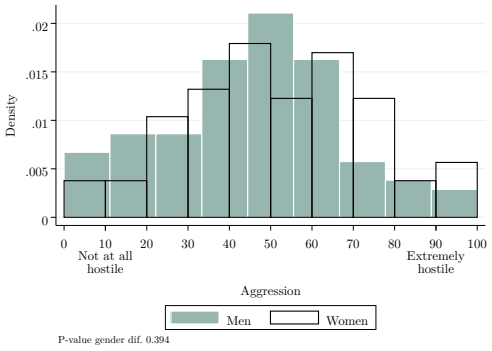
Notes: This figure shows the average perceived hostility of a job scenario by hostility attributes, separately by gender. We cross-randomized and vary the number of hostility attributes to a job scenario and ask "How hostile do you rate the above description of a work environment?".

FIGURE B4. Hostility Ratings of Job Scenarios by Hostility Attributes — Prolific Respondents

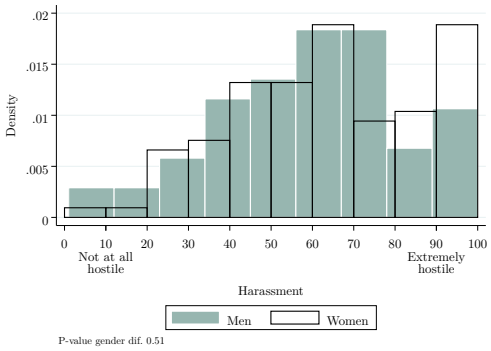
(A) Lack of Inclusion



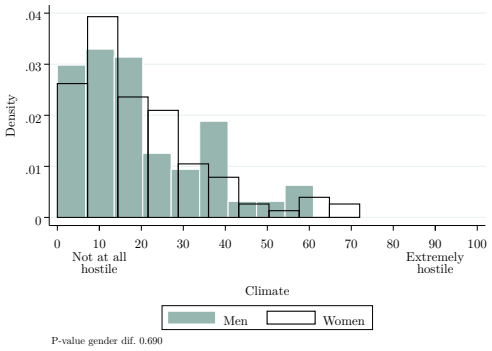
(B) Aggression



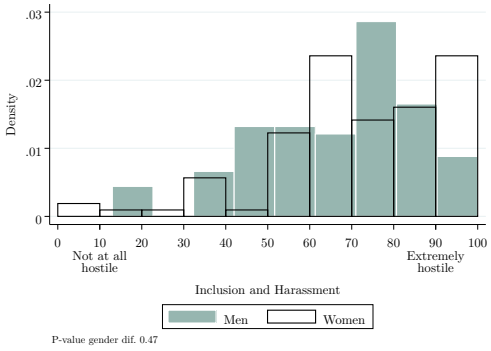
(C) Sexual Harassment



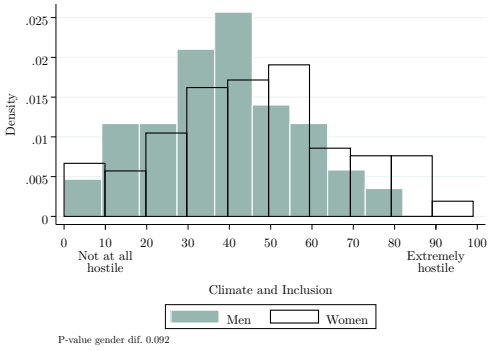
(D) Lack of Professional Growth



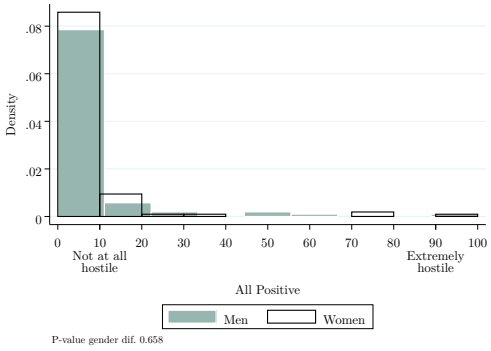
(E) Lack of Inclusion and Sexual Harassment



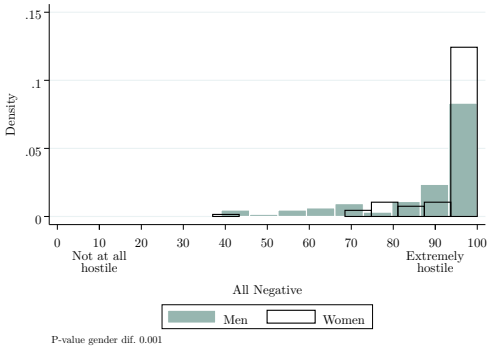
(F) Lack of Professional Growth and Lack of Inclusion



(G) All positive



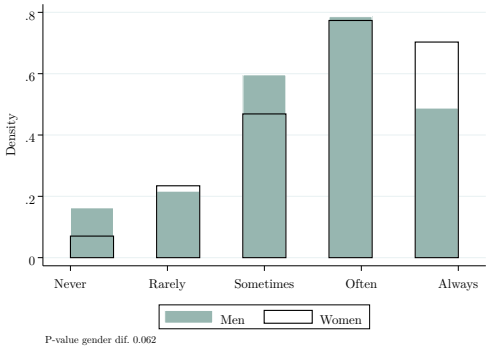
(H) All negative



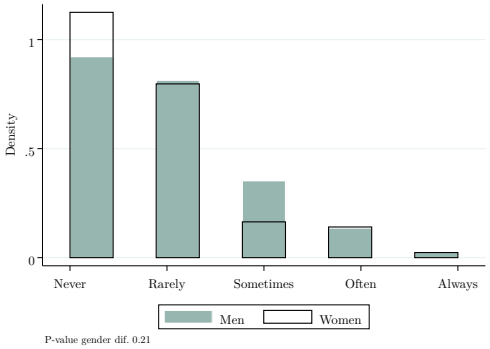
Notes: This figure shows the distribution of perceived hostility of a job scenario by hostility attributes, separately by gender. We cross-randomized and vary the number of hostility attributes to a job scenario and ask "How hostile do you rate the above description of a work environment?".

FIGURE B5. Experience of Hostility — Prolific Respondents

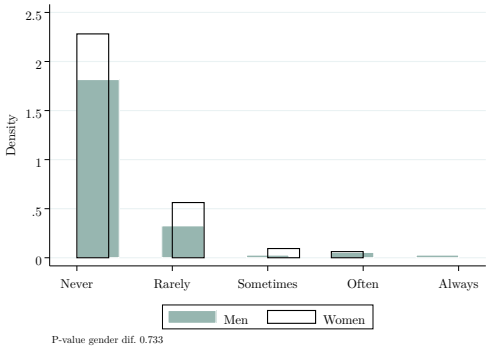
(A) Lack of Inclusion



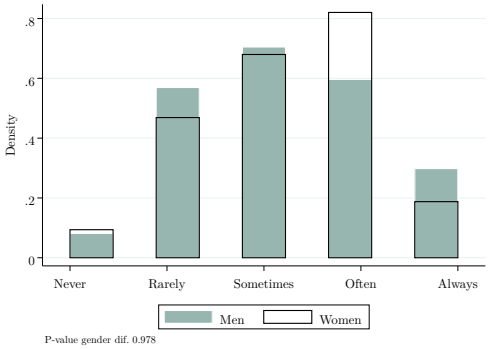
(B) Aggression



(C) Sexual Harassment



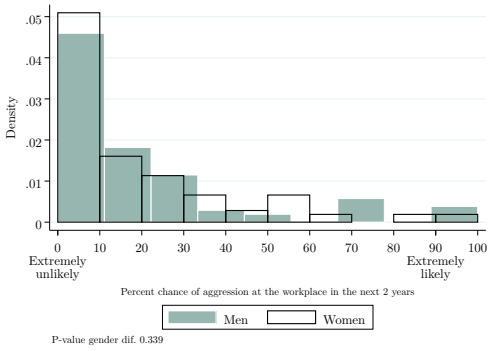
(D) Lack of Professional Growth



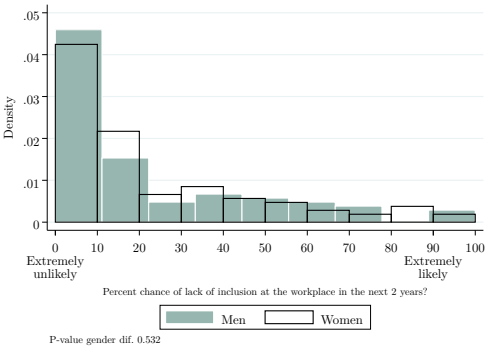
Notes: This figure shows the distribution of the perceived prevalence of hostility attributes to a work environment, separately by gender. We cross-randomized hostility attributes and ask "How common is it that is it that you experience X at a workplace?".

FIGURE B6. Perceived Risk of Hostility — Prolific Respondents

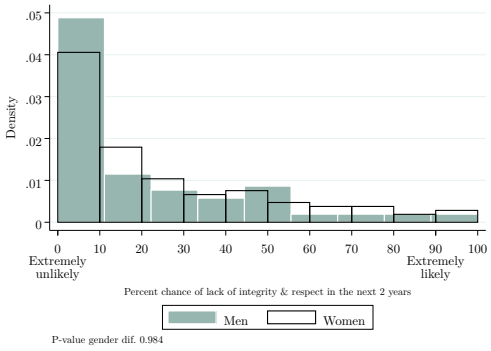
(A) Perceived Risk of Lack of Inclusion



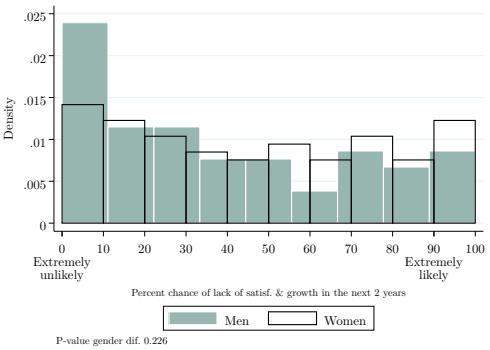
(B) Perceived Risk of Aggression



(C) Perceived Risk of Sexual Harassment



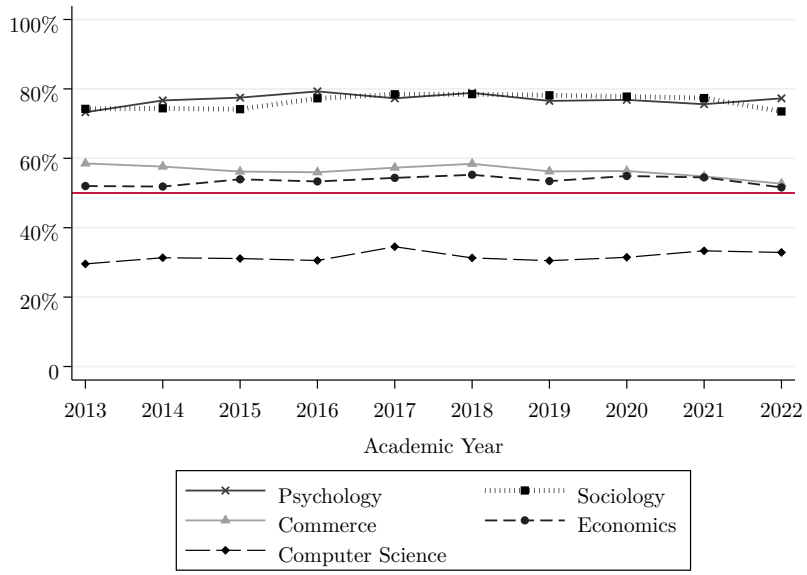
(D) Perceived Risk of Lack of Professional Growth



Notes: This figure shows the distribution of perceived risk of hostility attributes at a workplace in the next two years, separately by gender. We cross-randomized hostility attributes and ask "What is the percent chance that you will experience X at a workplace in the next two years?".

C Experimental Design

FIGURE C7. Share of Female Students by Majors



Notes: This figure shows the evolution of the share of female students by majors.
Administrative data, Faculty of Arts & Sciences and Rotman School of Management, University of Toronto, 2013-2022.

Table C1 – Experimental Sample — External Validity

	Experimental Sample Alumni	Canadian LFS
Demographics		
Women	0.705	0.567
	(0.456)	(0.495)
Men	0.275	0.433
	(0.447)	(0.495)
Has children	0.220	0.476
	(0.414)	(0.499)
Age 20-24	0.232	0.037
	(0.422)	(0.190)
Age 25-30	0.298	0.105
	(0.458)	(0.307)
Age 35-50	0.197	0.443
	(0.398)	(0.497)
Age 50+	0.143	0.414
	(0.350)	(0.493)
Employment Status		
Full-time	0.658	0.599
	(0.475)	(0.490)
Unemployed (and job seeking)	0.054	0.035
	(0.226)	(0.183)
Part-Time	0.114	0.107
	(0.318)	(0.309)
Student	0.000	0.058
	(0.000)	(0.234)
Not in paid work	0.108	0.259
	(0.311)	(0.438)
Worked Hours	35.02	35.61
	(14.58)	(9.86)
Annual salary (CAD)	76,349	71,715
	(60,719)	(31,044)
Broad Industries		
Government	0.036	0.085
	(0.185)	(0.279)
Other services and trade	0.057	0.137
	(0.233)	(0.344)
Business	0.217	0.085
	(0.413)	(0.278)
Science	0.068	0.133
	(0.252)	(0.340)
Education	0.332	0.160
	(0.471)	(0.367)
Arts	0.049	0.038
	(0.216)	(0.192)
Health	0.240	0.187
	(0.428)	(0.390)
Observations	888	29,284

Notes: This table presents descriptive statistics for the experimental sample (alumni) and the sample of college graduates over 19 years old from the October 2023 wave of the Canadian Labor Force Survey.

Table C2 – Survey Response Rates

Field of Study	Seniority	Outreach	Responses	Response Rate (in percent)
Commerce	Upper year Undergraduate Students	603	29	4.81
	Alumni	9,763	93	0.95
Economics	4th year Undergraduate Students	971	204	20.01
	Alumni MA and MFE	3,135	86	2.74
Psychology	Upper-year Undergraduate Students	800	163	20.38
	Alumni	9,158	689	7.52
Computer Science	Upper-year Undergraduate Students	800	163	20.38
Sociology	Upper-year Undergraduate Students	812	153	18.84
	Alumni	1,375	104	7.56
Student Life	Upper-year Undergraduate Students and Alumni	3,154	1,116	35.38
Total Responses		30,495	2,755	9.03

Notes: The university sent out the promotional email for the following samples: Commerce (undergraduates and alumni), Economics (undergraduates), Psychology (undergraduates and alumni), and Student Life. The remaining samples have been contacted by the authors. Examples of promotional Emails are available upon request.

Table C3 – Median Annual Salaries by Industries and Major

	Median Annual Full-Time Salary (in CAD)
Economics and Business	65,000
Banking and Finance	107,000
Computer and Technology	76,000
Consulting	80,000
Education	69,500
Energy	63,200
Financial Audit and Accounting	52,800
Pharmaceutical	73,000
Retail	65,000
Real Estate	65,000
Reported salary $\leq$ 10,000	65,000
Psychology	41,600
Arts, Culture, Recreation, Sport	34,000
Business, Finance, Administration	52,800
Education, Law, Social Work, Government Services	59,200
Healthcare	54,400
Retail, Sales or Services	30,600
Reported salary $\leq$ 10,000	41,600
Computer Science	124,000
Administration or Policy	80,000
Arts, Culture, Recreation, Sport	91,000
Architecture	97,000
Business, Banking, Finance or related	80,000
Computer and Technology	94,000
Education, Law, Social Work, Government Services	91,000
Energy	91,000
Health Care and Services	79,500
Pharmaceutical	91,000
Retail, Sales or Services	91,000
Real Estate	119,000
Reported salary $\leq$ 10,000	91,000
Sociology	79,000
Administration, Policy, or Non-Profits	75,000
Arts, Culture, Recreation, Sport	79,000
Business, Banking, Finance or related	75,000
Education, Law, Social Work, Government Services	79,000
Health Care	86,000
Retail, Sales or Services	79,000
Real Estate	118,000
Reported salary $\leq$ 10,000	79,000

Notes: This table presents the median annual full-time equivalent salaries for each industries $\times$ major combinations. Salaries are computed using employment income statistics by occupation, major field of study and highest level of education from Statistics Canada (2021 Census) for the population of full-time workers aged between 25-64 with a bachelor's degree or higher in each major.

Table C4 – Job Scenarios

	Values	
	(1)	(2)
Aggression	"The workplace fosters a culture of friendly interactions. Instances of aggression are rare."	"The environment is very much cutthroat. Bullying does happen and intimidation is frequent and seen as tool to make you work harder."
Inclusion	"The team is incredibly inclusive and supportive. They actively embrace diversity and create an environment where everyone's voice is heard and respected."	"I often feel excluded and undervalued by my colleagues. It's challenging to be heard in an environment that lacks appreciation for diverse perspectives."
Sexual Harassment	"The company maintains a zero-tolerance policy towards sexual harassment, ensuring a safe workplace for all employees."	"Instances of sexual harassment are an open secret, creating an uncomfortable and unsafe work environment. People who make inappropriate comments or act inappropriately are not reprimanded by management."
Workplace climate survey	"The workplace climate survey reflects high employee engagement. It signifies a work environment that fosters growth and satisfaction."	"The workplace climate survey reflects low employee engagement. The results reveal widespread dissatisfaction and a lack of opportunities for growth."
Work Location	"You will complete all your tasks in-person at the office."	"You will complete 50% of your tasks in-person and 50% of your tasks remotely."
Team-Work	"You complete projects by yourself."	"You sometimes complete projects by yourself and sometimes in teams".

Notes: This table presents the two versions of each hostility attributes and other non-wage attributes (work location and team-work).

D Additional Results

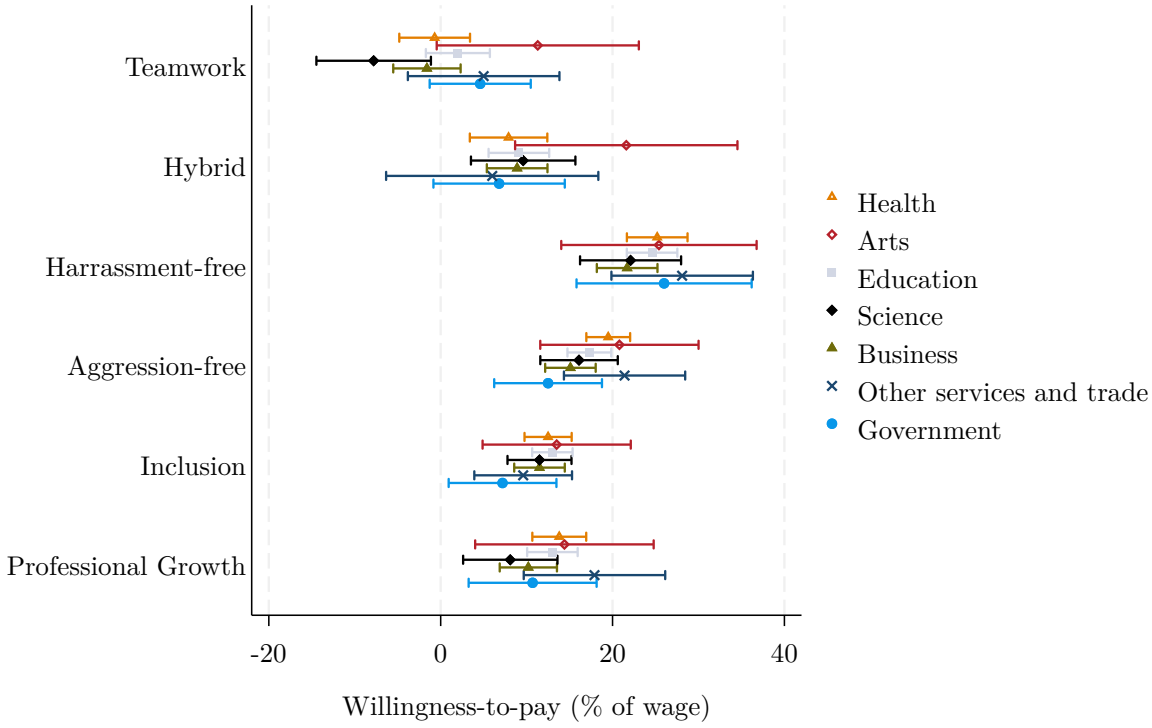
D.1 Discussion of estimates in context of prior findings from Folke and Rickne (2022)

Our estimates suggest that participants would be willing to give up 31 percent in wages to work in an environment that is free of sexual harassment. In comparison, Folke and Rickne (2022) find a willingness-to-pay of 10 percentage points. Note, that our experimental design and econometric approach differ in important ways. We would expect our estimates to be higher for two reasons. First, our sexual harassment scenario implies a more severe level of harassment than all three scenarios used by Folke and Rickne (2022).[A.3] Second, their alternative scenario states that no information is available, while our alternative scenario states a zero-tolerance policy. Moreover, our experimental design operates in a finer measurement space, allowing us to estimate the willingness-to-pay more precisely and for a wider range of relative wages. In contrast, Folke and Rickne (2022) vary wages discretely, setting an imprecise lower and upper bound on their results.[A.4] Lastly, Folke and Rickne (2022) calculate their WTP estimates with an OLS regression first and then calculate the ratio between the coefficient for sexual harassment and a weighted average of the three wage coefficients used in their experiment. They also re-weigh their results to reflect the sample population. In contrast, we obtain our WTP estimates with a mixed logit model which allows for unobserved heterogeneity and unrestricted substitution patterns, and don't re-weigh our estimates. We are unable to replicate their weights since these data are proprietary. However, we can approximate our design to theirs and follow their econometric approach. When doing so, we arrive at an estimate between 16.05 percent and 21.54 percent for a scenario that describes a more severe level of harassment and is compared to a zero tolerance work environment. This leads us to conclude that our estimates are consistent with their results.

[A.3] Their vignettes scenarios state that "Women (men) in the work unit have expressed that men (women) are not suitable for the job.", "A woman (man) in the work unit makes male (female) coworkers uncomfortable by stubbornly discussing her (his) sex life.", and "A woman (man) has groped a man (woman) in the work unit."

[A.4] Folke and Rickne (2022) present three jobs where the four possible values for wages were "5 percent less than your current wage", "approximately the same as your current wage", "5 percent more than your current wage", or "10 percent more than your current wage."

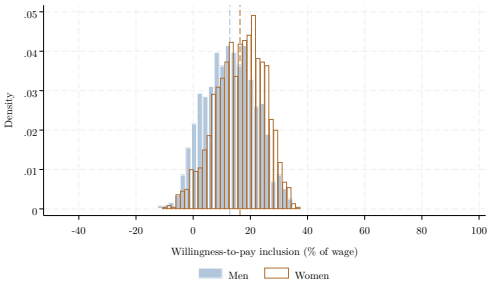
FIGURE D8. WTP by Industry



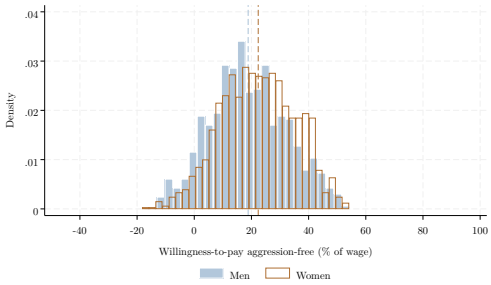
Notes: This figure shows respondents' WTP for working arrangements (hybrid work and teamwork) and for all hostility attributes (lack of inclusion, aggression, sexual harassment) and for professional growth, separately by industry. Estimates are presented in corresponding Table D6.

FIGURE D9. Individual WTP Distributions for Hostility Attributes and Work Environments by Gender

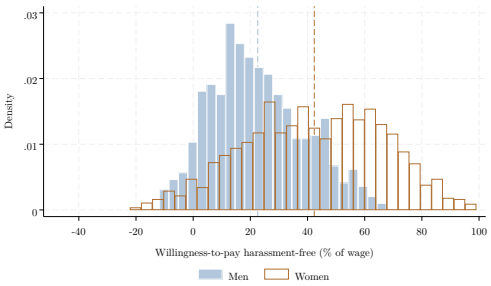
(A) Inclusion



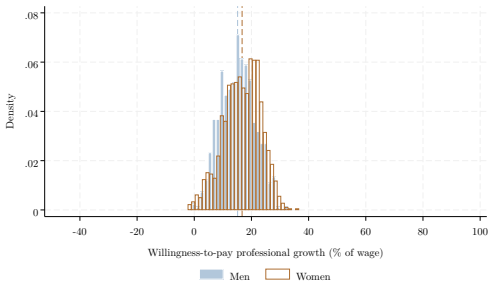
(B) Aggression-Free Environment



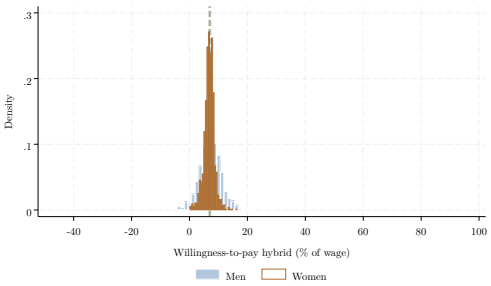
(C) Sexual Harassment-Free Environment



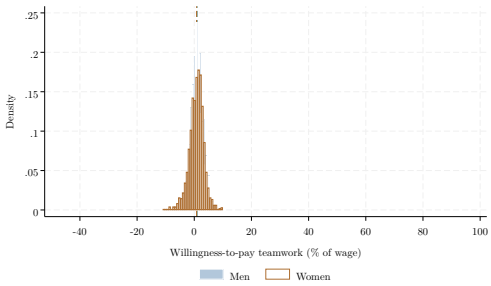
(D) Professional Growth



(E) Hybrid Work

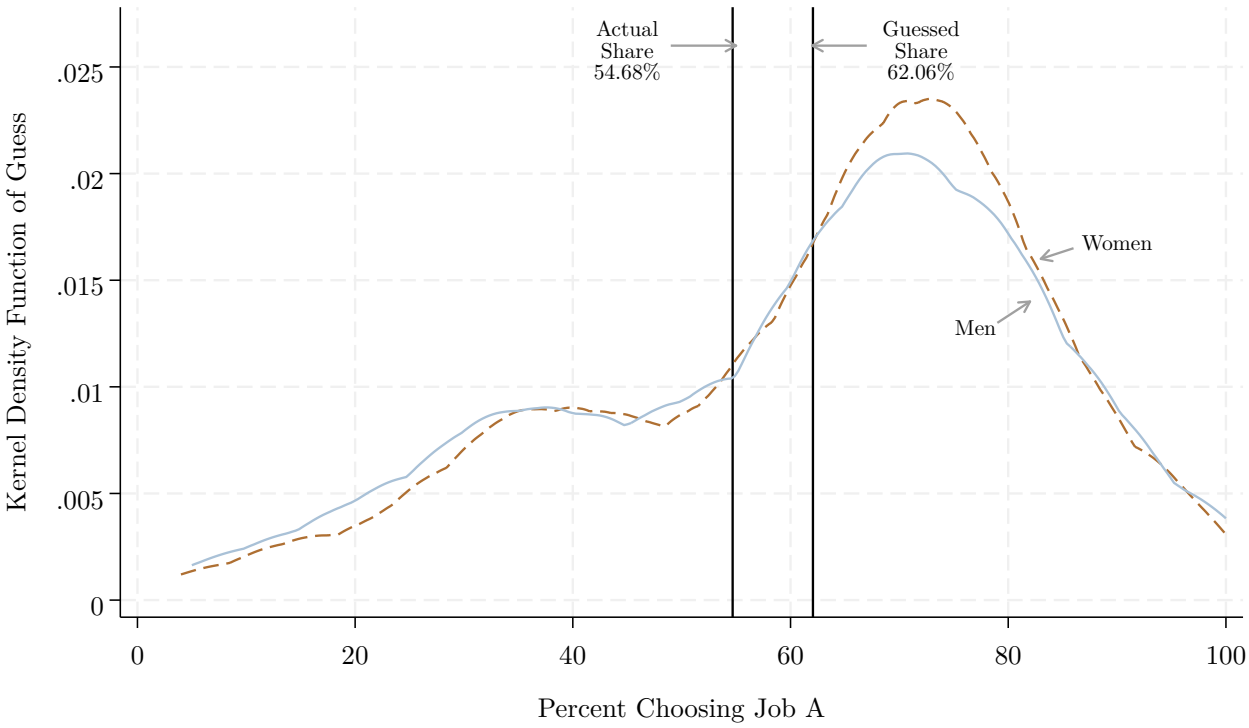


(F) Teamwork



Notes: This figure shows individual WTP distributions for each hostility amenities (lack of inclusion, aggression and sexual harassment), for professional growth and working arrangements (hybrid, teamwork) separately by gender.

FIGURE D10. Comparison between Actual and Guessed Percentage of Respondents who accepted Job A in Scenario 12



Notes: This figure shows the distribution of the guessed percentage of male (continuous line) and female (dash line) respondents who accepted Job A in Scenario 12 compared to the actual percentage from the experiment. The actual and guessed shares are computed from the whole sample.

Table D5 – Willingness-to-Pay Estimates to avoid Hostility at Work — Standard Logit

	Women	Men	Students	Alumni	White	Non-white	First gen	Not first gen	Male-Dominated Fields	Female-Dominated Fields
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Inclusion	0.127***	0.102***	0.118***	0.122***	0.119***	0.119***	0.108***	0.101***	0.122***	0.122***
vs. Lack of Inclusion	(0.006)	(0.008)	(0.006)	(0.007)	(0.010)	(0.005)	(0.000)	(0.000)	(0.012)	(0.005)
p-value diff.	0.011		0.676		0.991		0.732		0.147	
Aggression-free	0.177***	0.159***	0.162***	0.185***	0.188***	0.168***	0.196***	0.151***	0.159***	0.174***
vs. Risk of Aggression	(0.006)	(0.008)	(0.006)	(0.007)	(0.010)	(0.005)	(0.000)	(0.000)	(0.011)	(0.005)
p-value diff.	0.076		0.016		0.089		0.054		0.223	
Harassment-free	0.300***	0.183***	0.280***	0.247***	0.262***	0.266***	0.212***	0.176***	0.236***	0.270***
vs. Risk of Harassment	(0.008)	(0.010)	(0.008)	(0.009)	(0.013)	(0.007)	(0.000)	(0.000)	(0.014)	(0.007)
p-value diff.	0.000		0.007		0.821		0.195		0.024	
Professional growth	0.137***	0.128***	0.140***	0.124***	0.134***	0.133***	0.145***	0.124***	0.121***	0.135***
vs. Lack of Professional growth	(0.007)	(0.009)	(0.008)	(0.008)	(0.011)	(0.006)	(0.000)	(0.000)	(0.014)	(0.006)
p-value diff.	0.462		0.132		0.901		0.396		0.372	
Hybrid	0.068***	0.074***	0.053***	0.086***	0.091***	0.065***	0.077***	0.072***	0.073***	0.070***
vs. Full on-site	(0.008)	(0.012)	(0.009)	(0.010)	(0.009)	(0.007)	(0.003)	(0.000)	(0.010)	(0.007)
p-value diff.	0.712		0.004		0.123		0.872		0.867	
Teamwork	0.003	0.010	-0.002	0.005	0.018	-0.001	-0.007	0.013	-0.014	0.007
vs. Solo	(0.008)	(0.011)	(0.009)	(0.010)	(0.015)	(0.007)	(0.753)	(0.272)	(0.015)	(0.007)
p-value diff.	0.624		0.368		0.270		0.427		0.200	
N	26,624									

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) for various subgroups. The first two columns present estimates separately by gender, Columns 3 and 4 by participant status (enrolled or graduated students versus alumni), column 5 and 6 by participants' race, columns 7 and 8 by participants' parental educational status (whether they are first-gen college graduate or not), and columns 9 and 10 by field of study (male- or female-dominated). Standard errors are in parenthesis. The p-value testing for different estimates between subgroups are reported below each odd column.

Table D6 – WTP by Industry

	Government	Other services and trade	Business	Science	Education	Arts	Health
Inclusion	0.072***	0.096***	0.110***	0.115***	0.130***	0.135***	0.125***
vs. Lack of Inclusion	(0.032)	(0.029)	(0.015)	(0.019)	(0.012)	(0.044)	(0.014)
Aggression-free	0.125***	0.214***	0.151***	0.161***	0.173***	0.208***	0.195***
vs. Risk of Aggression	(0.032)	(0.036)	(0.015)	(0.023)	(0.013)	(0.047)	(0.013)
Harassment-free	0.260***	0.281***	0.217***	0.221***	0.246***	0.254***	0.252***
vs. Risk of Harassment	(0.052)	(0.012)	(0.018)	(0.030)	(0.015)	(0.058)	(0.018)
Professional growth	0.107***	0.179***	0.102***	0.081***	0.130***	0.144***	0.138***
vs. Lack of Professional growth	(0.038)	(0.042)	(0.017)	(0.028)	(0.015)	(0.053)	(0.016)
Hybrid	0.068	0.060	0.089***	0.096***	0.091***	0.216***	0.079***
vs. Full on-site	(0.039)	(0.063)	(0.018)	(0.031)	(0.018)	(0.066)	(0.023)
Teamwork	0.046	0.050	-0.016	-0.078***	0.020	0.113*	-0.007
vs. Solo	(0.030)	(0.045)	(0.020)	(0.012)	(0.034)	(0.060)	(0.021)
N	403	689	2,691	962	3,432	494	2,522

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) separately by broad industry. Standard errors are in parenthesis.

Table D7 – Willingness-to-Pay Estimates to avoid Hostility at Work — Reweighted Sample

	Sample of Alumni	Reweighted Sample
Inclusion	0.122***	0.134***
vs. Lack of Inclusion	(0.007)	(0.010)
Aggression-free	0.185***	0.199***
vs. Risk of Aggression	(0.007)	(0.011)
Harassment-free	0.247***	0.253***
vs. Risk of Harassment	(0.009)	(0.013)
Professional growth	0.124***	0.139***
vs. Lack of Professional growth	(0.008)	(0.011)
Hybrid	0.091***	0.106***
vs. Full on-site	(0.010)	(0.014)
Teamwork	0.007	0.014
vs. Solo	(0.010)	(0.014)
N	11,544	11,544

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) restricting the sample to alumni. Column 1 presents the un-reweighted results. In Column 2, the results are weighted by gender, age, and the presence of children within the college-graduate population of the Canadian Labor Force Survey (October 2023). Weights are equal the inverse predicted probability of being in the experiment sample to the LFS.

Table D8 – Willingness-to-Pay Estimates to avoid Hostility at Work

	Psychology major	Excluding Psychology major	Student Career Services	Excluding Student Career Services	Participants who Asked for the Research Paper	Excluding Participants who Asked for the Research Paper
	(1)	(2)	(3)	(4)	(5)	(6)
Inclusion	0.137***	0.109***	0.117***	0.121***	0.123***	0.110***
vs. Lack of Inclusion	(0.008)	(0.006)	(0.008)	(0.006)	(0.000)	(0.000)
p-value diff.	0.003		0.715		0.224	
Aggression-free	0.200***	0.156***	0.171***	0.173***	0.174***	0.169***
vs. Risk of Aggression	(0.008)	(0.006)	(0.008)	(0.006)	(0.000)	(0.000)
p-value diff.	0.00		0.880			
Harassment-free	0.259***	0.268***	0.290***	0.250***	0.258***	0.282***
vs. Risk of Harassment	(0.010)	(0.008)	(0.011)	(0.007)	(0.000)	(0.000)
p-value diff.	0.46		0.002		0.078	
Professional growth	0.125***	0.137***	0.144***	0.127***	0.129***	0.142***
vs. Lack of Professional growth	(0.009)	(0.007)	(0.009)	(0.007)	(0.000)	(0.000)
p-value diff.	0.259		0.128		0.281	
Hybrid	0.085***	0.063***	0.052***	0.081***	0.072***	0.065***
vs. Full on-site	(0.011)	(0.008)	(0.010)	(0.008)	(0.000)	(0.000)
p-value diff.	0.104		0.030		0.584	
Teamwork	0.003	0.003	-0.001	0.006	0.003	0.005
vs. Solo	(0.011)	(0.008)	(0.011)	(0.009)	(0.736)	(0.717)
p-value diff.	0.981		0.614		0.891	
N	9,633	16,991	10,270	16,354	18,655	7,969

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) restricting the sample to psychology major respondents (Column 1) or excluding these participants (Column 2), restricting the sample to participants contacted by the University's Student Career Services (Column 3) or excluding them (Column 4), restricting the sample to participants who asked to receive results from the research paper (Column 5) or excluding these participants (Column 6). Standard errors are in parenthesis. The p-value testing for different estimates between subgroups are reported below each odd column.

Table D9 – Stated and Revealed Preferences — Hybrid Work

	Works from Office	Works Remotely	p-value diff.
Panel A. Whole sample			
Inclusion	0.143***	0.119***	0.786
vs. Lack of Inclusion	(0.011)	(0.008)	
Aggression-free	0.198***	0.179***	0.204
vs. Risk of Aggression	(0.012)	(0.009)	
Harassment-free	0.270***	0.238***	0.085
vs. Risk of Harassment	(0.015)	(0.011)	
Professional growth	0.139***	0.116***	0.174
vs. Lack of Professional growth	(0.014)	(0.010)	
Hybrid	0.046***	0.109***	0.002
vs. Full on-site	(0.017)	(0.012)	
Teamwork	0.025	0.004	0.326
vs. Solo	(0.017)	(0.013)	
N			26,624
Panel B. Men			
Inclusion	0.098***	0.100***	0.960
vs. Lack of Inclusion	(0.025)	(0.016)	
Aggression-free	0.213***	0.167***	0.137
vs. Risk of Aggression	(0.027)	(0.016)	
Harassment-free	0.232***	0.175***	0.108
vs. Risk of Harassment	(0.030	(0.019)	
Professional growth	0.125***	0.139***	0.672
vs. Lack of Professional growth	(0.029)	(0.017)	
Hybrid	0.080***	0.105***	0.544
vs. Full on-site	(0.036)	(0.02)	
Teamwork	0.013	0.004	0.840
vs. Solo	(0.04)	(0.021)	
N			7,592
Panel C. Women			
Inclusion	0.131***	0.126***	0.750
vs. Lack of Inclusion	(0.013)	(0.01)	
Aggression-free	0.192***	0.180***	0.475
vs. Risk of Aggression	(0.014)	(0.01)	
Harassment-free	0.282***	0.262***	0.381
vs. Risk of Harassment	(0.018)	(0.013)	
Professional growth	0.144***	0.108***	0.069
vs. Lack of Professional growth	(0.016)	(0.012)	
Hybrid	0.036***	0.113***	0.001
vs. Full on-site	(0.019)	(0.016)	
Teamwork	0.035	0.007	0.274
vs. Solo	(0.019)	(0.016)	
N			18,395

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth, and for working arrangements (hybrid work and teamwork) restricting the sample to respondents declaring they work fully on-site (Column 1) or hybrid (Column 2), for the full sample (Panel A), male respondents (Panel B) and female respondents (Panel C). Standard errors are in parenthesis. The p-value testing for different estimates between subgroups are reported in Column 3.

Table D10 – Stated and Revealed Preferences — Team Work

	Works Solo	Works in Team	p-value diff.
Panel A. Whole sample			
Inclusion	0.121***	0.122***	0.901
vs. Lack of Inclusion	(0.009)	(0.011)	
Aggression-free	0.194***	0.172***	0.111
vs. Risk of Aggression	(0.01)	(0.011)	
Harassment-free	0.245***	0.250***	0.754
vs. Risk of Harassment	(0.012)	(0.013)	
Professional growth	0.122***	0.126***	0.773
vs. Lack of Professional growth	(0.011)	(0.012)	
Hybrid	0.089***	0.095***	0.778
vs. Full on-site	(0.013)	(0.015)	
Teamwork	0.000	0.024	0.242
vs. Solo	(0.014)	(0.015)	
N			26,624
Panel B. Men			
Inclusion	0.089***	0.120***	0.267
vs. Lack of Inclusion	(0.016)	(0.023)	
Aggression-free	0.173***	0.188***	0.615
vs. Risk of Aggression	(0.017)	(0.022)	
Harassment-free	0.153***	0.240***	0.009
vs. Risk of Harassment	(0.019)	(0.027)	
Professional growth	0.12***	0.157***	0.235
vs. Lack of Professional growth	(0.018)	(0.025)	
Hybrid	0.081***	0.129***	0.192
vs. Full on-site	(0.022)	(0.03)	
Teamwork	0.026	-0.026	0.206
vs. Solo	(0.02)	(0.036)	
N			7,592
Panel C. Women			
Inclusion	0.132***	0.122***	0.542
vs. Lack of Inclusion	(0.011)	(0.012)	
Aggression-free	0.202***	0.159***	0.009
vs. Risk of Aggression	(0.012)	(0.012)	
Harassment-free	0.279***	0.251***	0.179
vs. Risk of Harassment	(0.015)	(0.015)	
Professional growth	0.122***	0.117***	0.757
vs. Lack of Professional growth	(0.013)	(0.013)	
Hybrid	0.091***	0.085***	0.807
vs. Full on-site	(0.017)	(0.018)	
Teamwork	0.007	0.045***	0.033
vs. Solo	(0.019)	(0.016)	
N			18,395

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth, and for working arrangements (hybrid work and teamwork) restricting the sample to respondents declaring that none or some of their work is in teams (Column 1), or that all or most of their work is in teams (Column 2), for the full sample (Panel A), male respondents (Panel B) and female respondents (Panel C). Standard errors are in parenthesis. The p-value testing for different estimates between subgroups are reported in Column 3.

Table D11 – WTP and Outside Options — Alumni Respondents

	Working	Not Working	p-value diff.
Alumni respondents			
Inclusion	0.123***	0.113***	0.628
vs. Lack of Inclusion	(0.000)	(0.011)	
Aggression-free	0.181***	0.205***	0.252
vs. Risk of Aggression	(0.000)	(0.011)	
Harassment-free	0.236***	0.295***	0.025
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.114***	0.171***	0.016
vs. Lack of Professional growth	(0.000)	(0.012)	
Hybrid	0.098***	0.063***	0.196
vs. Full on-site	(0.000)	(0.011)	
Teamwork	0.012	0.006	0.811
vs. Solo	(0.276)	(0.818)	
N			11,544

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) restricting the sample to respondents working full-time, part-time or due to start a new job within the next month (Column 1), or not working (Column 2), meaning unemployed but seeking employment, not in paid work, or other. The p-value testing for different estimates between subgroups are reported in Column 3.

Table D12 – WTP and Treatment with Teamwork

	Treatment in Team	Treatment Solo	p-value diff.
Panel A. Whole sample			
Inclusion	0.127***	0.149***	0.207
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.173***	0.190***	0.317
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.260***	0.285***	0.220
vs. Risk of Harassment	(0.000)	(0.000)	
Professional growth	0.135***	0.131***	0.865
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.071***	0.071***	0.996
vs. Full on-site	(0.000)	(0.000)	
N			9,712
Panel B. Men			
Inclusion	0.111***	0.117***	0.812
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.167***	0.146***	0.373
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.184***	0.147***	0.256
vs. Risk of Harassment	(0.000)	(0.000)	
Professional growth	0.142***	0.116***	0.478
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.079***	0.068***	0.663
vs. Full on-site	(0.000)	(0.001)	
N			2,773
Panel C. Women			
Inclusion	0.135***	0.157***	0.306
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.178***	0.204***	0.239
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.293***	0.338***	0.081
vs. Risk of Harassment	(0.000)	(0.000)	
Professional growth	0.126***	0.136***	0.710
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.065***	0.068***	0.892
vs. Full on-site	(0.000)	(0.000)	
N			6,690

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work) restricting the sample to job scenarios with teamwork (Column 1), or without teamwork (Column 2). The p-value testing for different estimates between subgroups are reported in Column 3.

Table D13 – WTP and Past Experience of Aggression

	Past Experience of Aggression	No past experience of Aggression	p-value diff.
Panel A. Whole sample			
Inclusion	0.120***	0.119***	0.917
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.168***	0.179***	0.273
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.280***	0.241***	0.002
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.137***	0.128***	0.430
vs. Lack of Professional growth	(0.000)	(0.012)	
Hybrid	0.060***	0.087***	0.042
vs. Full on-site	(0.000)	(0.015)	
Teamwork	0.007	-0.001	0.534
vs. Solo	(0.385)	(0.916)	
N			26,624
Panel B. Men			
Inclusion	0.106***	0.095***	0.512
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.161***	0.156***	0.779
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.191***	0.170***	0.293
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.123***	0.136***	0.492
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.055***	0.100***	0.053
vs. Full on-site	(0.000)	(0.005)	
Teamwork	0.018	-0.000	0.422
vs. Solo	(0.179)	(0.981)	
N			7,592
Panel C. Women			
Inclusion	0.127***	0.129***	0.909
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.171***	0.188***	0.146
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.318***	0.271***	0.004
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.146***	0.123***	0.111
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.060***	0.081***	0.209
vs. Full on-site	(0.000)	(0.001)	
Teamwork	0.003	0.004	0.956
vs. Solo	(0.783)	(0.756)	
N			18,395

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) restricting the sample to participants with above-median past experience of aggression (Column 1), or with below-median past experience of aggression (Column 2). The p-value testing for different estimates between subgroups are reported in Column 3.

Table D14 – WTP and Past Experience of Sexual Harassment

	Past Experience of Sexual Harassment	No past experience of Sexual Harassment	p-value diff.
Panel A. Whole sample			
Inclusion	0.106***	0.122***	0.252
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.278***	0.179***	0.001
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.278***	0.263***	0.384
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.138***	0.133***	0.747
vs. Lack of Professional growth	(0.000)	(0.012)	
Hybrid	0.048***	0.074***	0.157
vs. Full on-site	(0.006)	(0.000)	
Teamwork	0.003	0.004	0.972
vs. Solo	(0.875)	(0.615)	
N			26,624
Panel B. Men			
Inclusion	0.083***	0.105***	0.332
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.133***	0.163***	0.179
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.176***	0.184***	0.755
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.099***	0.133***	0.192
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.055***	0.077***	0.463
vs. Full on-site	(0.041)	(0.005)	
Teamwork	-0.020	0.015	0.209
vs. Solo	(0.421)	(0.222)	
N			7,592
Panel C. Women			
Inclusion	0.116***	0.130***	0.409
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.138***	0.185***	0.004
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.316***	0.298***	0.392
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.157***	0.134***	0.225
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.043***	0.072***	0.232
vs. Full on-site	(0.053)	(0.001)	
Teamwork	0.024	-0.000	0.360
vs. Solo	(0.336)	(0.981)	
N			18,395

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) restricting the sample to participants with above-median past experience of sexual harassment (Column 1), or with below-median past experience of sexual harassment (Column 2). The p-value testing for different estimates between subgroups are reported in Column 3.

Table D15 – WTP and Perceived Risk of Aggression

	High Perceived Risk of Aggression	Low Perceived Risk of Aggression	p-value diff.
Panel A. Whole sample			
Inclusion	0.113***	0.124***	0.219
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.162***	0.180***	0.048
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.264***	0.266***	0.856
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.133***	0.133***	0.973
vs. Lack of Professional growth	(0.000)	(0.012)	
Hybrid	0.058***	0.079***	0.105
vs. Full on-site	(0.000)	(0.015)	
Teamwork	-0.001	0.006	0.600
vs. Solo	(0.945)	(0.472)	
N	26,624	26,624	26,624
Panel B. Men			
Inclusion	0.108***	0.098***	0.530
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.167***	0.153***	0.400
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.197***	0.173***	0.228
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.121***	0.133***	0.520
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.081***	0.069***	0.618
vs. Full on-site	(0.000)	(0.005)	
Teamwork	-0.001	0.018	0.393
vs. Solo	(0.947)	(0.225)	
N	7,592	7,592	7,592
Panel C. Women			
Inclusion	0.108***	0.138***	0.039
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.157***	0.192***	0.002
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.292***	0.306***	0.400
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.144***	0.131***	0.350
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.045***	0.086***	0.009
vs. Full on-site	(0.000)	(0.001)	
Teamwork	0.002	0.004	0.901
vs. Solo	(0.893)	(0.721)	
N	18,395	18,395	18,395

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) restricting the sample to participants with above-median perceived risk of aggression in the next two years (Column 1), or with below-median perceived risk of aggression in the next two years (Column 2), using the median answer. The *p*-value testing for different estimates between subgroups are reported in Column 3.

Table D16 – WTP and Perceived Risk of Sexual Harassment

	High Perceived Risk of Sexual Harassment	Low Perceived Risk of Sexual Harassment	p-value diff.
Panel A. Whole sample			
Inclusion	0.124***	0.117***	0.476
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.171***	0.173***	0.841
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.279***	0.257***	0.102
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.137***	0.131***	0.610
vs. Lack of Professional growth	(0.000)	(0.012)	
Hybrid	0.048***	0.081***	0.015
vs. Full on-site	(0.000)	(0.015)	
Teamwork	-0.006	0.008	0.301
vs. Solo	(0.581)	(0.309)	
N	26,624	26,624	26,624
Panel B. Men			
Inclusion	0.125***	0.096***	0.160
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.160***	0.159***	0.942
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.176***	0.185***	0.732
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.111***	0.132***	0.352
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.055***	0.077***	0.506
vs. Full on-site	(0.000)	(0.005)	
Teamwork	-0.013	0.015	0.328
vs. Solo	(0.612)	(0.222)	
N	7,592	7,592	7,592
Panel C. Women			
Inclusion	0.125***	0.129***	0.705
vs. Lack of Inclusion	(0.000)	(0.000)	
Aggression-free	0.172***	0.180***	0.449
vs. Risk of Aggression	(0.000)	(0.000)	
Harassment-free	0.301***	0.299***	0.876
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.148***	0.129***	0.192
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.043***	0.085***	0.008
vs. Full on-site	(0.000)	(0.001)	
Teamwork	-0.002	0.006	0.612
vs. Solo	(0.859)	(0.562)	
N	18,395	18,395	18,395

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth and for working arrangements (hybrid work and teamwork) restricting the sample to participants with above-median perceived risk of sexual harassment in the next two years (Column 1), or with below-median perceived risk of sexual harassment in the next two years (Column 2), using the median answer. The *p*-value testing for different estimates between subgroups are reported in Column 3.

Table D17 – WTP and Treatment with Risk of Aggression

	Treatment Without Aggression	Treatment With Aggression	p-value diff.
Panel A. Whole sample			
Inclusion	0.124***	0.000	.
vs. Lack of Inclusion	(0.000)	.	
Harassment-free	0.278***	0.141***	0.000
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.158***	0.378***	0.000
vs. Lack of Professional growth	(0.000)	(0.012)	
Hybrid	0.069***	0.074***	0.785
vs. Full on-site	(0.000)	(0.000)	
Teamwork	0.006	0.007	0.985
vs. Solo	(0.504)	(0.700)	
N			10,481
Panel B. Men			
Inclusion	0.110***	0.000	.
vs. Lack of Inclusion	(0.000)	.	
Harassment-free	0.195***	0.159***	0.258
vs. Risk of Harassment	(0.000)	(0.013)	
Professional growth	0.161***	0.278***	0.004
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.084***	0.080***	0.890
vs. Full on-site	(0.000)	(0.005)	
Teamwork	0.026	-0.007	0.261
vs. Solo	(0.079)	(0.791)	
N			3,026
Panel C. Women			
Inclusion	0.131***	0.000	.
vs. Lack of Inclusion	(0.000)	.	
Harassment-free	0.313***	0.125***	0.000
vs. Risk of Harassment	(0.000)	(0.000)	
Professional growth	0.160***	0.416***	0.000
vs. Lack of Professional growth	(0.000)	(0.000)	
Hybrid	0.060***	0.069***	0.694
vs. Full on-site	(0.000)	(0.001)	
Teamwork	0.003	0.021	0.477
vs. Solo	(0.783)	(0.336)	
N			7,217

Notes: This table presents willingness-to-pay estimates from standard logit model for each hostility attributes (lack of inclusion, aggression, sexual harassment), for professional growth, and for working arrangements (hybrid work and teamwork) restricting the sample to job scenarios without aggression (Column 1), or with aggression (Column 2). The *p*-value testing for different estimates between subgroups are reported in Column 3.

TABLE D18 – EXPERIMENTAL SAMPLE - SUMMARY STATISTICS HOSTILITY BY INDUSTRY

	All	Government	Other services and trade	Business	Science	Education	Arts	Health
Past experience of								
professional growth	0.74	0.84	0.62	0.80	0.80	0.86	0.76	0.88
	(0.44)	(0.37)	(0.49)	(0.40)	(0.40)	(0.35)	(0.43)	(0.33)
inclusion	0.89	0.81	0.81	0.88	0.84	0.92	0.87	0.92
	(0.32)	(0.40)	(0.39)	(0.32)	(0.37)	(0.27)	(0.34)	(0.27)
aggression	0.63	0.45	0.43	0.43	0.32	0.33	0.18	0.31
	(0.48)	(0.51)	(0.50)	(0.50)	(0.47)	(0.47)	(0.39)	(0.47)
sexual harassment	0.16	0.23	0.13	0.14	0.12	0.08	0.05	0.09
	(0.37)	(0.43)	(0.34)	(0.34)	(0.33)	(0.28)	(0.23)	(0.29)
Perceived risk of experiencing... within the next 2 years (in percent)								
lack of professional growth	46.35	44.35	54.60	42.49	50.59	43.94	53.16	46.40
	(25.56)	(23.66)	(26.36)	(27.38)	(26.05)	(28.52)	(25.01)	(28.80)
lack of inclusion	35.40	35.10	36.45	31.31	34.15	32.70	30.82	29.75
	(24.90)	(26.93)	(23.65)	(25.76)	(24.82)	(28.53)	(26.47)	(24.93)
aggression	29.60	20.00	30.40	28.58	25.39	24.86	20.74	28.41
	(24.44)	(22.51)	(22.88)	(25.60)	(22.65)	(26.24)	(20.59)	(26.00)
sexual harassment	17.35	14.42	16.77	14.14	12.49	13.76	13.87	14.72
	(20.05)	(18.68)	(17.58)	(18.77)	(15.51)	(17.87)	(16.16)	(18.39)
Guessed Percentage of Respondents who accepted Job A in Scenario 12								
Actual Percentage: 54.7	62.06	57.00	62.44	65.53	58.26	61.62	64.80	61.06
	(21.34)	(24.16)	(16.15)	(21.14)	(19.43)	(22.14)	(16.51)	(20.80)
N	2048	31	53	207	74	264	38	194

E Conceptual Framework

E.1 Mathematical Proofs

E.1.1 Micro-foundations of the decision problem

Note that two functional forms of the utility function can accommodate the worker's decision problem. Either the utility function is separable and characterized by:

$$U(C_S, S) - pH * S \tag{A.1}$$

with $S = 0, 1$ and

$$\begin{aligned} U(C_0, 0) &= U(C^*, 1) - pH \\ C^* &= U^{-1}(U(C_0, 0) + pH, 1) \end{aligned}$$

or the utility function is non-separable:

$$U(C_S - pH * S, S) \tag{A.2}$$

such that

$$\begin{aligned} U(C_0, 0) &= U(C^* - pH, 1) \\ C^* &= U^{-1}(U(C_0, 0), 1) - pH \end{aligned}$$

In both cases, C^* and H are jointly determined, hence we assume later that Z and H are not independent.

E.1.2 Derivation of Δ_{w1} for Case 1:

Proof. We equalize expressions for $L_1^s = L_1^d$ and $L_0^s = L_0^d$:

$$G(\Delta_w) = 1 - \Psi(\Delta_w)$$

$$1 - G(\Delta_w) = \Psi(\Delta_w)$$

We express this equation using the standard normal distribution function $\Phi(.)$

$$\Phi\left(\frac{\Delta_w - \mu_Z}{\sigma_Z}\right) = 1 - \Phi\left(\frac{\Delta_w - \mu_B}{\sigma_B}\right)$$

Apply the inverse of the standard normal distribution function $\Phi^{-1}(.)$ to both sides:

$$\frac{\Delta_w - \mu_Z}{\sigma_Z} = -\frac{\Delta_w - \mu_B}{\sigma_B}$$

Hence

$$\Delta_{w1} = \frac{\sigma_B \mu_Z + \mu_B \sigma_Z}{\sigma_Z + \sigma_B}$$

□

E.1.3 Derivation of Δ_{w2} for Case 2:

Proof. We equalize the expressions for $L_1^s = L_1^d$ and $L_0^s = L_0^d$:

$$\Phi\left(\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}\right) = 1 - \Phi\left(\frac{\Delta_w - \mu_B}{\sigma_B}\right)$$

Applying the same transformation of the inverse of the standard normal distribution function $\Phi^{-1}(.)$:

$$\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}} = -\frac{\Delta_w - \mu_B}{\sigma_B}$$

Hence

$$\Delta_{w2} = \frac{\sigma_B(\mu_Z + p\mu_H) + \mu_B\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}} + \sigma_B}$$

□

E.1.4 Derivation of Δ_{w3} for Case 3:

Proof. We equalize the expressions for $L_1^s = L_1^d$ and $L_0^s = L_0^d$:

$$\Phi\left(\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}\right) = 1 - \Phi\left(\frac{\Delta_w - \frac{p}{K} - \mu_B}{\sigma_B}\right)$$

Applying the same transformation of the inverse of the standard normal distribution function $\Phi^{-1}(.)$ we find:

$$\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}} = -\frac{\Delta_w - \frac{p}{K} - \mu_B}{\sigma_B}$$

Hence

$$\Delta_{w3} = \frac{\sigma_B(\mu_Z + p\mu_H) + \left(\mu_B + \frac{p}{K}\right)\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}} + \sigma_B}$$

□

E.1.5 Derivation of Selection and Firms' Rents for Case 1 and Case 2:

Proof. Using the labor demand equations, we can write the selection of firms choosing remote work as:

$$\begin{aligned}
L_1^d &= \int_{\Delta_{w1}}^{\infty} \psi(B)dB = 1 - \Psi(\Delta_{w1}) \\
L_0^d &= \int_{0}^{\Delta_{w1}} \psi(B)dB = \Psi(\Delta_{w1}) \\
\mathbb{E}(B|S=0, p=0) &= \mathbb{E}(B|B \leq \Delta_{w1}) \\
&= \mu_B - \sigma_B \left[\frac{\phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}{\Phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}\right] \\
\mathbb{E}(B|S=1, p=0) &= \mathbb{E}(B|B > \Delta_{w1}) \\
&= \mu_B + \sigma_B \left[\frac{\phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}{1 - \Phi(\frac{\Delta_{w1}-\mu_B}{\sigma_B})}\right]
\end{aligned}$$

We can then replace Δ_{w1} by Δ_{w2} for Case 2. □

E.1.6 Derivation of Selection and Workers' Rents for Case 2 and Case 3:

Proof. To characterize selection in the office jobs, we write

$$\mathbb{E}(H|S=1, p>0) = \mathbb{E}(H|Z + pH \leq \Delta_w)$$

and

$$\mathbb{E}(Z|S=1, p>0) = \mathbb{E}(Z|Z + pH \leq \Delta_w)$$

We write $Y = Z + pH$

$$\begin{pmatrix} Z \\ Y \end{pmatrix} \sim \mathcal{N}\left[\begin{pmatrix} \mu_Z \\ \mu_Y \end{pmatrix}, \begin{pmatrix} \sigma_Z^2 & \sigma_{Z,Y} \\ \sigma_{Z,Y} & \sigma_Y^2 \end{pmatrix} \right]$$

which implies $\mathbb{E}(Z|Y) = \mu_Z + \frac{\sigma_{Z,Y}}{\sigma_Y^2}(Y - \mu_Y)$

and

$$\begin{pmatrix} Z \\ Y \end{pmatrix} \sim \mathcal{N}\left[\begin{pmatrix} \mu_H \\ \mu_Y \end{pmatrix}, \begin{pmatrix} \sigma_H^2 & \sigma_{H,Y} \\ \sigma_{H,Y} & \sigma_Y^2 \end{pmatrix} \right]$$

which implies $\mathbb{E}(H|Y) = \mu_H + \frac{\sigma_{H,Y}}{\sigma_Y^2}(Y - \mu_Y)$ where

$$\sigma_{Z,Y} = cov(Z, Z + pH) = \sigma_Z^2 + p\sigma_{Z,H}$$

$$\sigma_{H,Y} = cov(H, Z + pH) = \sigma_H^2 + p\sigma_{Z,H}$$

According to the law of iterated expectations, we have that

$$\begin{aligned} \mathbb{E}(Z|Y \leq \Delta_w) &= \mathbb{E}[\mathbb{E}(Z|Y)|Y \leq \Delta_w] \\ &= \mathbb{E}\left(\mu_Z + \frac{\sigma_{Z,Y}}{\sigma_Y^2}(Y - \mu_Y)|Y \leq \Delta_w\right) \\ &= \mu_Z + \frac{\sigma_{Z,Y}}{\sigma_Y}\mathbb{E}\left(\frac{Y - \mu_Y}{\sigma_Y}|\frac{Y - \mu_Y}{\sigma_Y} \leq \frac{\Delta_w - \mu_Y}{\sigma_Y}\right) \end{aligned}$$

and

$$\begin{aligned} \mathbb{E}(H|Y \leq \Delta_w) &= \mathbb{E}[\mathbb{E}(H|Y)|Y \leq \Delta_w] \\ &= \mathbb{E}\left(\mu_H + \frac{\sigma_{H,Y}}{\sigma_Y^2}(Y - \mu_Y)|Y \leq \Delta_w\right) \\ &= \mu_H + \frac{\sigma_{H,Y}}{\sigma_Y}\mathbb{E}\left(\frac{Y - \mu_Y}{\sigma_Y}|\frac{Y - \mu_Y}{\sigma_Y} \leq \frac{\Delta_w - \mu_Y}{\sigma_Y}\right) \end{aligned}$$

It follows that

$$\begin{aligned} \mathbb{E}(Z|Y \leq \Delta_w) &= \mu_Z - \frac{\sigma_Z^2 + p\sigma_{Z,H}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}\frac{\phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})}{\Phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})} \\ \mathbb{E}(H|Y \leq \Delta_w) &= \mu_H - \frac{p\sigma_H^2 + \sigma_{Z,H}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}}}\frac{\phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})}{\Phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})} \end{aligned}$$

We write the rent formula as

$$\begin{aligned} R_{wo|S=1} &= \Delta_w - \mathbb{E}(Z|S=1, p>0) - p\mathbb{E}(H|S=1, p>0) \\ &= \Delta_w - (\mu_Z + p\mu_H) + \sqrt{\sigma_Z^2 + p^2\sigma_H^2 + 2p\sigma_{Z,H}} \left[\frac{\phi\left(\frac{\Delta_w - \mu_Y}{\sigma_Y}\right)}{\Phi\left(\frac{\Delta_w - \mu_Y}{\sigma_Y}\right)} \right] \end{aligned}$$

We then replace Δ_w by the values found for Δ_{w2} and Δ_{w3}.

□

E.2 Independence Assumption

We explore equilibrium outcomes if assume that H and Z are independent random variables.

Assumption 4. *Z and H are independent random variables that are normally distributed, with $Z \sim \mathcal{N}(\mu_Z, \sigma_Z^2)$ and $H \sim \mathcal{N}(\mu_H, \sigma_H^2)$*

We write that $Y \sim \mathcal{N}(\mu_Y, \sigma_Y^2)$, with $\mu_Y = \mu_Z + p\mu_H$ and $\sigma_Y^2 = \sigma_Z^2 + p^2\sigma_H^2$. We can rewrite $Y = \mu_Y + \sigma_Y^2 X$ with $X \sim \mathcal{N}(0,1)$ and derive the labor supply equations in both $S = 0, 1$ jobs.

The formula for Δ_{w1} is unchanged, so are the rents for Case 1.

E.2.1 Derivation of Δ_{w2} for Case 2 with the independence assumption:

Proof. We equalize the expressions for $L_1^s = L_1^d$ and $L_0^s = L_0^d$:

$$\Phi\left(\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\right) = 1 - \Phi\left(\frac{\Delta_w - \mu_B}{\sigma_B}\right)$$

Applying the same transformation of the inverse of the standard normal distribution function $\Phi^{-1}(.)$:

$$\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}} = -\frac{\Delta_w - \mu_B}{\sigma_B}$$

Hence

$$\Delta_{w2} = \frac{\sigma_B(\mu_Z + p\mu_H) + \mu_B\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2} + \sigma_B}$$

□

E.2.2 Derivation of Δ_{w3} for Case 3 with the independence assumption:

Proof. We equalize the expressions for $L_1^s = L_1^d$ and $L_0^s = L_0^d$:

$$\Phi\left(\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\right) = 1 - \Phi\left(\frac{\Delta_w - \frac{p}{K} - \mu_B}{\sigma_B}\right)$$

Applying the same transformation of the inverse of the standard normal distribution function $\Phi^{-1}(.)$ we find:

$$\frac{\Delta_w - (\mu_Z + p\mu_H)}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}} = -\frac{\Delta_w - \frac{p}{K} - \mu_B}{\sigma_B}$$

Hence

$$\Delta_{w3} = \frac{\sigma_B(\mu_Z + p\mu_H) + \left(\mu_B + \frac{p}{K}\right)\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2} + \sigma_B}$$

□

E.2.3 Derivation of Selection and Workers' Rents for Case 2 and Case 3 with the independence assumption:

Proof. To characterize selection in the office jobs, we write

$$\mathbb{E}(H|S = 1, p > 0) \quad = \quad \mathbb{E}(H|Z + pH \leq \Delta_w)$$

and

$$\mathbb{E}(Z|S = 1, p > 0) \quad = \quad \mathbb{E}(Z|Z + pH \leq \Delta_w)$$

Let's write $Y = Z + pH$. We use the assumption that Z and H are jointly distributed according to a bivariate normal with zero correlation to write and the law of iterative expectations:

$$\begin{aligned}
\mathbb{E}(Z|Y \leq \Delta_w) &= \mathbb{E}[\mathbb{E}(Z|Y)|Y \leq \Delta_w] \\
&= \mathbb{E}[\mu_Z + \frac{\sigma_Z^2}{\sigma_Z^2 + p^2\sigma_H^2}(Y - \mu_Y)|Y \leq \Delta_w] \\
&= \mu_Z + \frac{\sigma_Z^2}{\sigma_Z^2 + p^2\sigma_H^2}\mathbb{E}\left[\frac{Y - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}|Y \leq \Delta_w\right] \\
&= \mu_Z + \frac{\sigma_Z^2}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\mathbb{E}\left[\frac{Y - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}|\frac{Y - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}} \leq \frac{\Delta_w - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\right] \\
&= \mu_Z - \frac{\sigma_Z^2}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\frac{\phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})}{\Phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})}
\end{aligned}$$

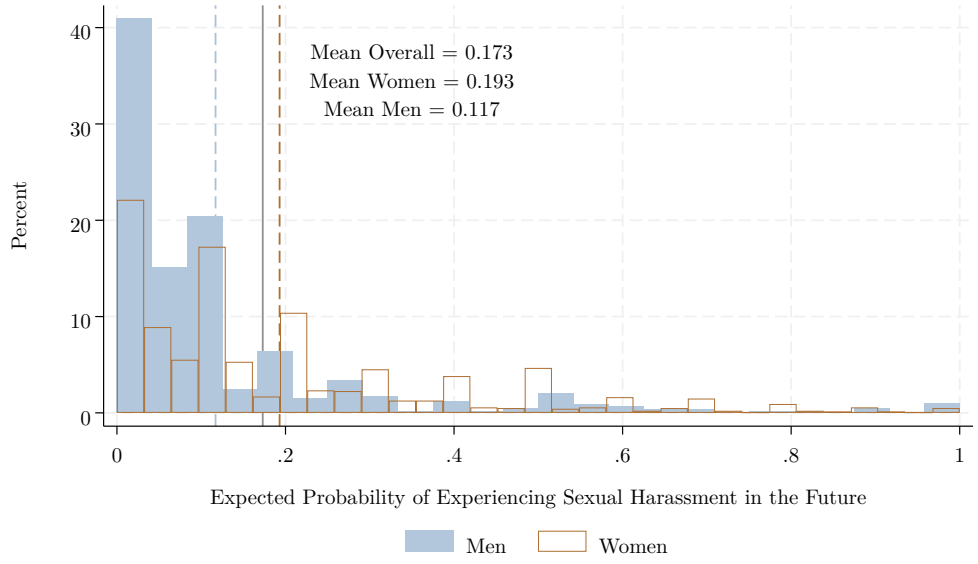
Similarly,

$$\begin{aligned}
\mathbb{E}(H|Y \leq \Delta_w) &= \mathbb{E}[\mathbb{E}(H|Y)|Y \leq \Delta_w] \\
&= \mathbb{E}[\mu_H + \frac{p\sigma_H^2}{\sigma_Z^2 + p^2\sigma_H^2}(Y - \mu_Y)|Y \leq \Delta_w] \\
&= \mu_H + \frac{p\sigma_H^2}{\sigma_Z^2 + p^2\sigma_H^2}\mathbb{E}\left[\frac{Y - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}|Y \leq \Delta_w\right] \\
&= \mu_H + \frac{p\sigma_H^2}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\mathbb{E}\left[\frac{Y - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}|\frac{Y - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}} \leq \frac{\Delta_w - \mu_Y}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\right] \\
&= \mu_H - \frac{p\sigma_H^2}{\sqrt{\sigma_Z^2 + p^2\sigma_H^2}}\frac{\phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})}{\Phi(\frac{\Delta_w - \mu_Y}{\sigma_Y})}
\end{aligned}$$

We then replace Δ_w by the values found for Δ_{w2} and Δ_{w3}. □

E.3 Simulations

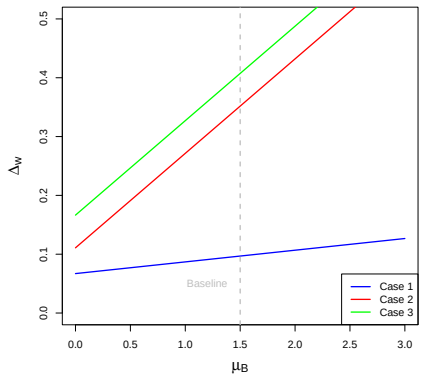
FIGURE E11. Perceived Risk of Sexual Harassment p



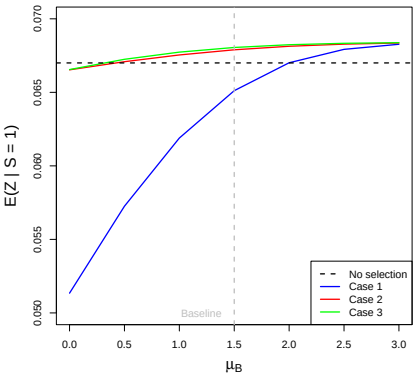
Notes: The figure shows the distribution of the perceived risk of sexual harassment p, separately by gender taken from our survey.

FIGURE E12. Simulations — By Firms' Productivity Cost of Remote Work μ_B

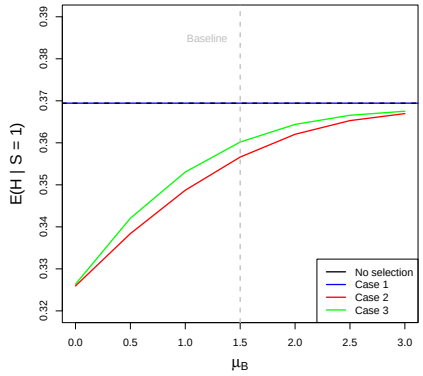
(A) Wage Differentials Δ_w



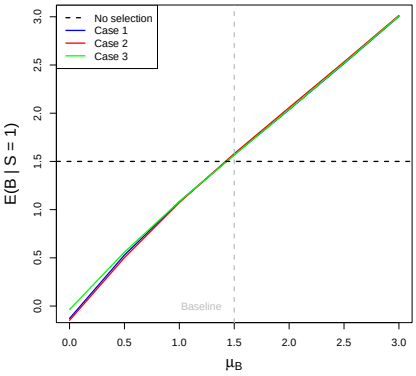
(B) Workers' Preference for Hybrid Work in Office Jobs $\mathbb{E}(Z|S=1)$



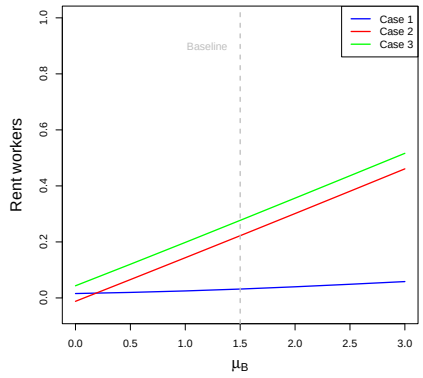
(C) Workers' Distaste for Sexual Harassment in Office Jobs $\mathbb{E}(H|S=1)$



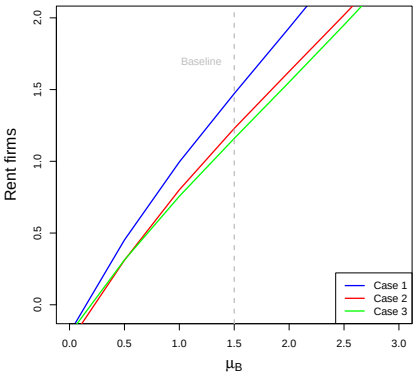
(D) Firms' Productivity Cost of Remote Work in Office Jobs $\mathbb{E}(B|S=1)$



(E) Workers' Excess Rents in Office Jobs



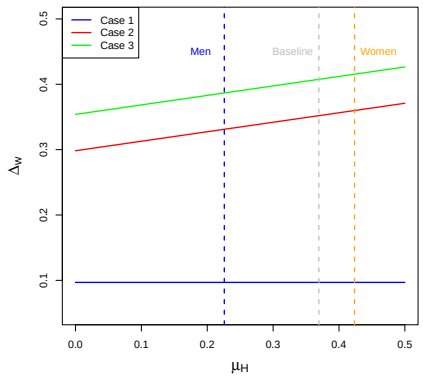
(F) Firms' Excess Rents in Office Jobs



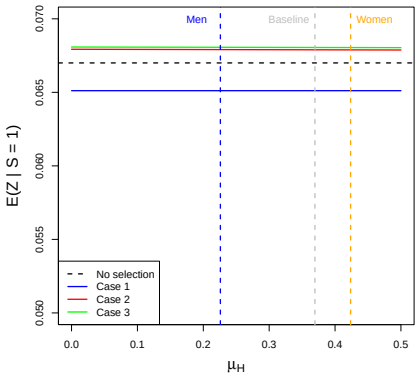
Notes: Panel A compares Δ_w the wage differentials between on-site and remote work across the three scenarios for various values of μ_B, assuming $\sigma_B = 1$, $\sigma_{Z,H} = 0.1$ and using parameters from Table E19, Panel B compares workers' selection on Z, Panel C compares workers' selection on H, Panel D compares firms' selection on B, Panel E compares workers' excess rents, across the three scenarios: Case 1 no risk of sexual harassment, Case 2 risk of sexual harassment internalized by workers only, Case 3 risk of sexual harassment internalized by workers and firms.

FIGURE E13. Simulations — By Workers' Distaste for Sexual Harassment μ_H

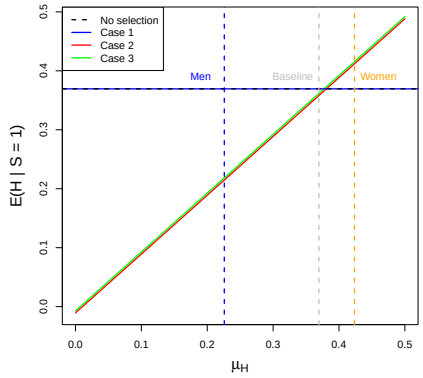
(A) Wage Differentials Δ_w



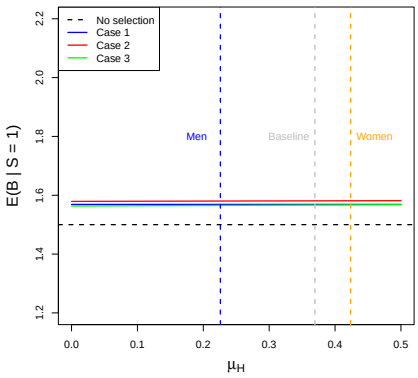
(B) Workers' Preference for Hybrid Work in Office Jobs $\mathbb{E}(Z|S=1)$



(C) Workers' Distaste for Sexual Harassment in Office Jobs $\mathbb{E}(H|S=1)$

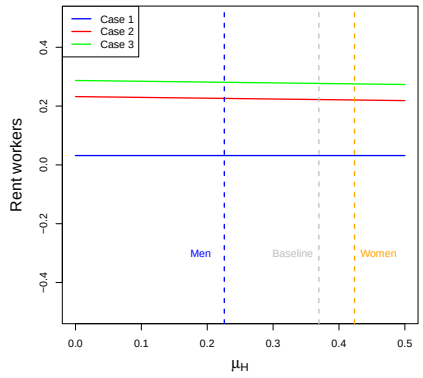


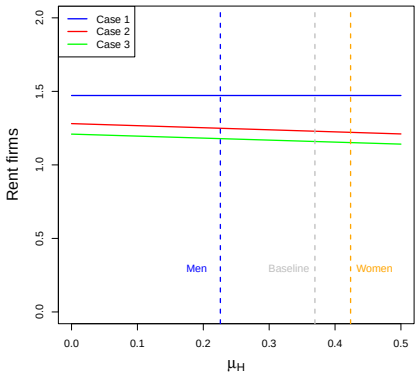
(D) Firms' Productivity Cost of Remote Work in Office Jobs $\mathbb{E}(B|S=1)$



(E) Workers' Excess Rents in Office Jobs

(F) Firms' Excess Rents in Office Jobs

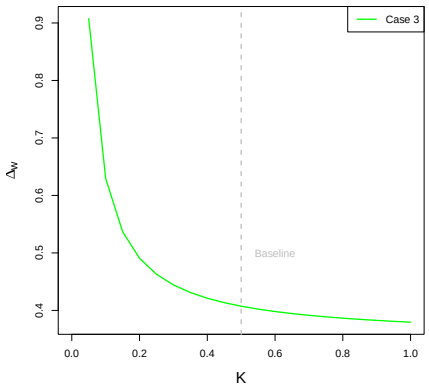




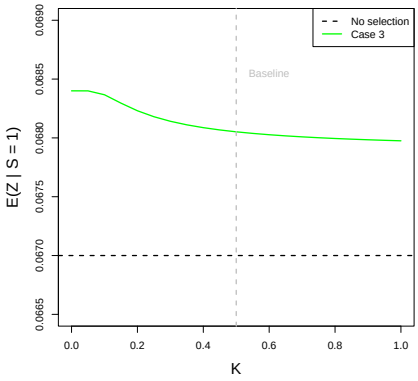
Notes: Panel A compares Δ_w the wage differentials between on-site and remote work across the three scenarios for various values of μ_H, assuming $\sigma_B = 1$, $\mu_B = 1.5$ and $\sigma_{Z,H} = 0.1$, using parameters from Table E19, Panel B compares workers' selection on Z, Panel C compares workers' selection on H, Panel D compares firms' selection on B, Panel E compares workers' excess rents, across the three scenarios: Case 1 no risk of sexual harassment, Case 2 risk of sexual harassment internalized by workers only, Case 3 risk of sexual harassment internalized by workers and firms.

FIGURE E14. Simulations — By Firms' Policy Cost K

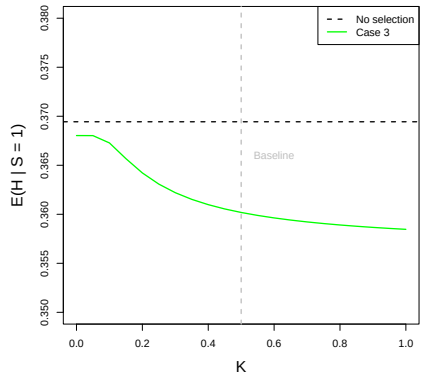
(A) Wage Differentials Δ_w



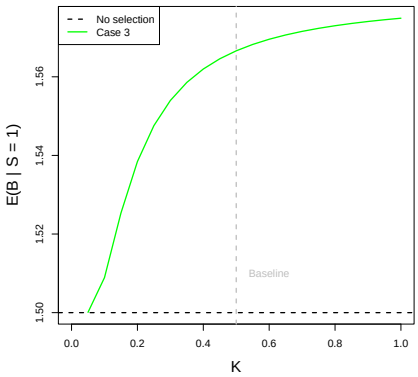
(B) Workers' Preference for Hybrid Work in Office Jobs $\mathbb{E}(Z|S=1)$



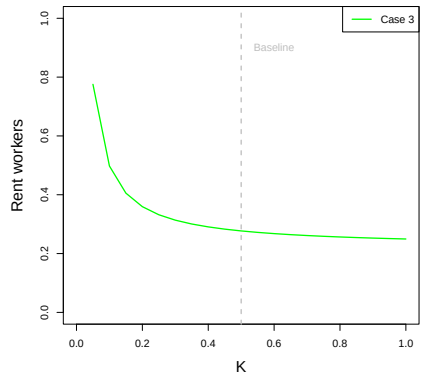
(C) Workers' Distaste for Sexual Harassment in Office Jobs $\mathbb{E}(H|S=1)$



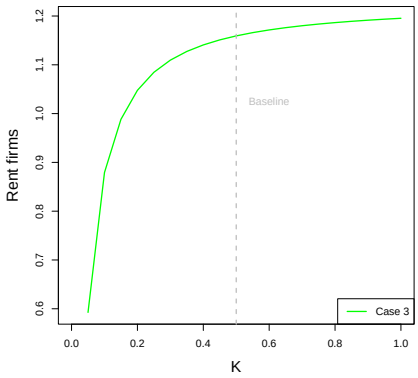
(D) Firms' Productivity Cost of Remote Work in Office Jobs $\mathbb{E}(B|S=1)$



(E) Workers' Excess Rents in Office Jobs



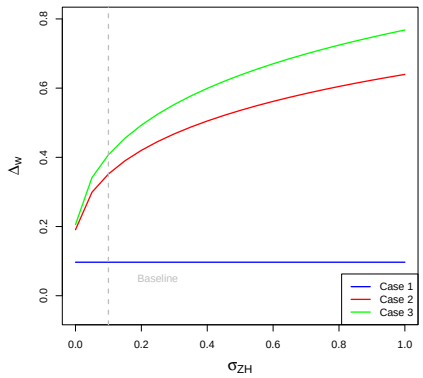
(F) Firms' Excess Rents in Office Jobs



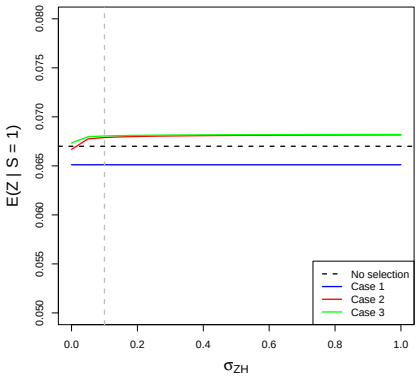
Notes: Panel A plots Δ_w the wage differentials between on-site and remote work for various values of K, assuming $\sigma_B = 1$, $\mu_B = 1.5$ and $\sigma_{Z,H} = 0.1$, using parameters from Table E19, Panel B plots workers' selection on Z, Panel C or various values of K workers' selection on H, Panel D or various values of K firms' selection on B, Panel E or various values of K workers' excess rents.

FIGURE E15. Model's Predictions — By Covariance of Preferences over Amenities $\sigma_{Z,H}$

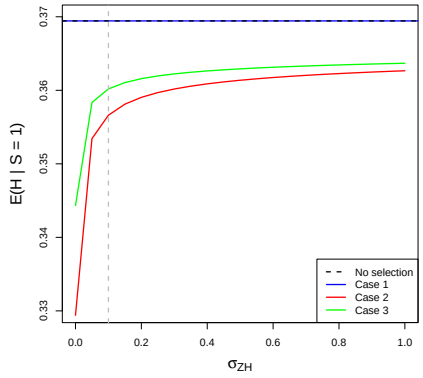
(A) Wage Differentials Δ_w



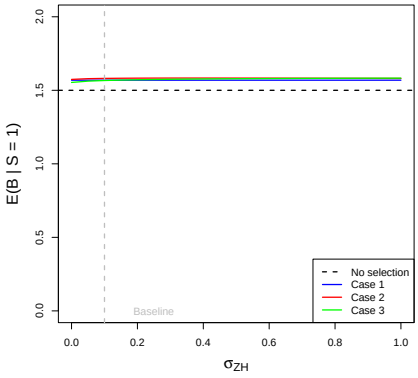
(B) Workers' Preference for Hybrid Work in Office Jobs $\mathbb{E}(Z|S=1)$



(C) Workers' Distaste for Sexual Harassment in Office Jobs $\mathbb{E}(H|S=1)$

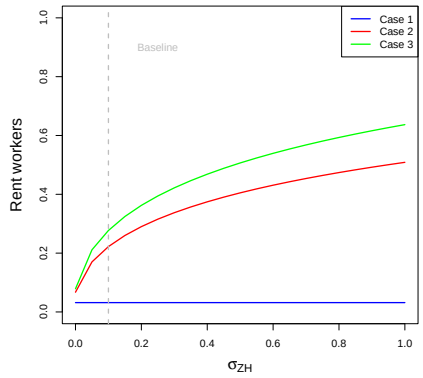


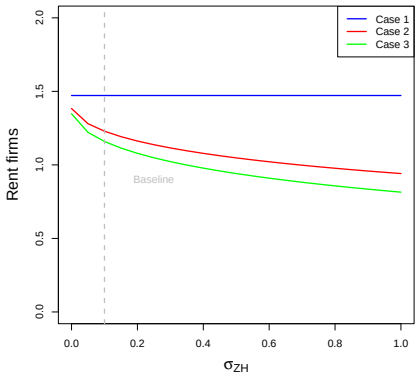
(D) Firms' Productivity Cost of Remote Work in Office Jobs $\mathbb{E}(B|S=1)$



(E) Workers' Excess Rents in Office Jobs

(F) Firms' Excess Rents in Office Jobs

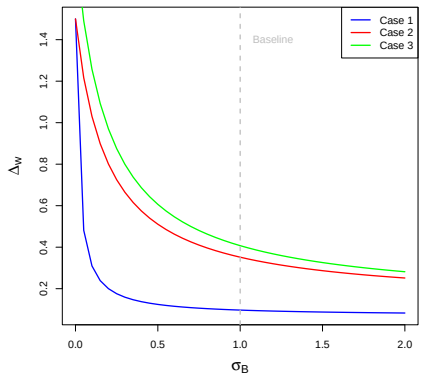




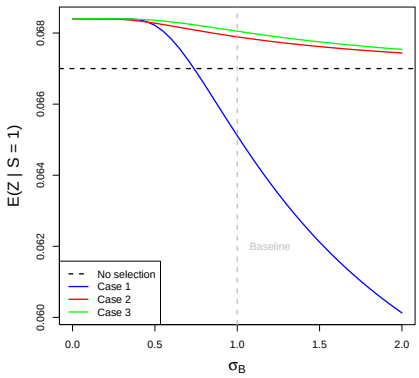
Notes: Panel A compares Δ_w the wage differentials between on-site and remote work across the three scenarios for various values of $\sigma_{Z,H}$, assuming $\sigma_B = 1$, $\mu_B = 1.5$, and using parameters from Table E19, Panel B compares workers' selection on Z, Panel C compares workers' selection on H, Panel D compares firms' selection on B, Panel E compares workers' excess rents, across the three scenarios: Case 1 no risk of sexual harassment, Case 2 risk of sexual harassment internalized by workers only, Case 3 risk of sexual harassment internalized by workers and firms.

FIGURE E16. Simulations — By Firms' Heterogeneity σ_B

(A) Wage Differentials Δ_w

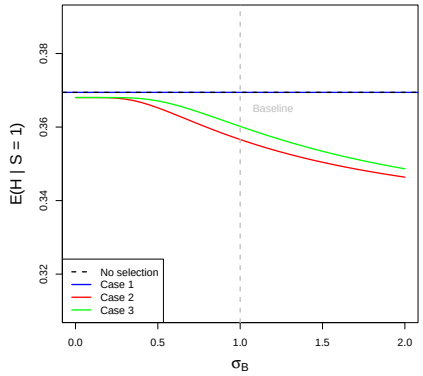


(B) Workers' Preference for Hybrid Work in Office Jobs $\mathbb{E}(Z|S=1)$

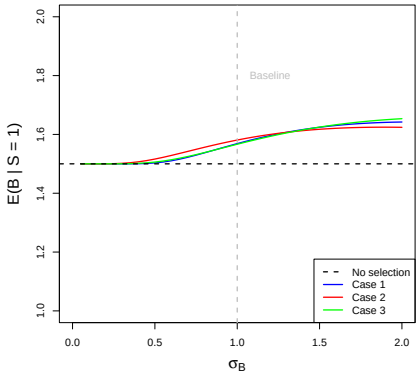


(C) Workers' Distaste for Sexual Harassment in Office Jobs $\mathbb{E}(H|S=1)$

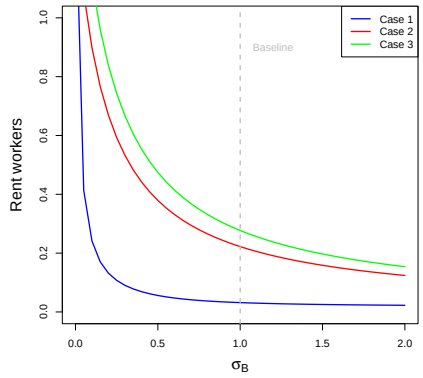
(D) Firms' Productivity Cost of Remote Work in Office Jobs $\mathbb{E}(B|S=1)$

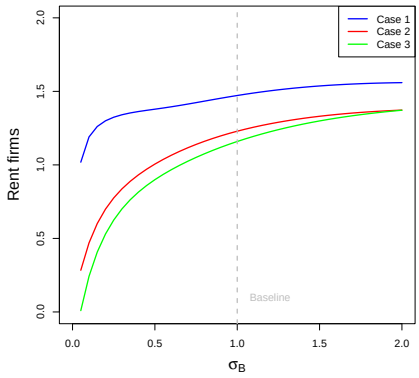


(E) Workers' Excess Rents in Office Jobs



(F) Firms' Excess Rents in Office Jobs





Notes: Panel A compares Δ_w the wage differentials between on-site and remote work across the three scenarios for various values of σ_B, assuming $\mu_B = 1.5$, $\sigma_{Z,H} = 0.1$ and using parameters from Table E19, Panel B compares workers' selection on Z, Panel C compares workers' selection on H, Panel D compares firms' selection on B, Panel E compares workers' excess rents, across the three scenarios: Case 1 no risk of sexual harassment, Case 2 risk of sexual harassment internalized by workers only, Case 3 risk of sexual harassment internalized by workers and firms.

Table E19 – Empirical Parameters

	Values
Perceived probability parameters	Source: Survey
Probability of sexual harassment p	0.173
Sample of men	0.117
Sample of women	0.193
Preference parameters	Model: Mixed Logit
WTP for remote work	
μ_Z	0.067
σ_Z	0.074
WTP for harassment-free	
μ_H	0.369
σ_H	0.231
Simulated parameters	
μ_B	1.5
σ_B	1
$\sigma_{Z,H}$	0.1

Notes: This table presents parameters used for the model simulations. The preference parameters are obtained from Montecarlo simulations of the mixed logit model.

F Survey Questionnaire

Welcome!

Overview This is a short survey from the University of Toronto's Department of Psychology in collaboration with a team of researchers at the University of Toronto. The purpose of this survey is to better understand your job preferences. This will help our career offices to offer our students and alumni better guidance and job recommendations. Furthermore, data will be collected and analyzed for research purposes. Your participation today will take a maximum of 10 minutes. In the first part of this survey, you will answer a brief questionnaire. The second part of this survey will provide you with specific job descriptions and ask you for your opinion on these jobs. We do recommend taking this survey on a tablet, laptop, desktop computer, or similar. Some of the questions may be hard to read on screen of the size of a mobile phone.

Voluntary Participation, Privacy, and Point of Contact Your participation is completely voluntary. You can agree to take part and later change your mind. Your decision will not be held against you. The data you provide in this study will be stored in encrypted form and used for research purposes. De-identified data may be shared with other researchers or participants in the future. The principal investigator of this study is Clémentine Van Effenterre from the University of Toronto. If you have questions, concerns, or complaints regarding this study, you can contact Clémentine Van Effenterre at `c.vaneffenterre@utoronto.ca`. Note, that this is a research study and for data integrity reasons, you are allowed to only participate once.

Compensation This survey takes a maximum of 10 minutes to complete. You will receive a total of $5 in payment for completing the study in the form of a Tango gift card (valid at 1,000+ stores such as Amazon, Uber, Starbucks, Sephora, PlayStation, Cineplex). Payment will be transferred within five workdays of completion. Additionally, you will be able to enter a lottery upon completion of this study. We will randomly draw 30 winners who will win CAD 250.

Research Results We are happy to share our results with you should you be interested. You may print a copy of this information sheet for your own records. If you would like to volun-

tarily participate in this survey, confirm that you are 18 years or older, and have completed 14 or more credits please press "Next page" to continue.

In what currency do you want to receive your payment?

- CAD
- USD

First, we ask you to answer a set of questions about yourself and your job preferences broadly speaking. (Note that these individual-level data will not be shared with the Career Services. The Career Services will only receive aggregate results from the team of researchers.)

1. What year of your program are you in?

    - Finished 1st year
    - Finished 2nd year
    - Finished 3rd year
    - Finished 4th year
    - Finished 5th year

2. What is your intended or current major?

    - Architecture
    - Art
    - Biology
    - Biomedical Sciences
    - Business
    - Commerce
    - Communications
    - Computer Sciences
    - Criminal Justice
    - Culinary Arts
    - Economics
    - Education
    - Engineering
    - English
    - Environmental Science
    - Geography
    - History
    - Information Technology
    - Legal Studies

- Literature
- Music
- Nursing
- Pharmaceutical
- Physics
- Political Science
- Psychology
- Religious Studies
- Social Sciences
- Other, Not Listed

3. What is your graduating GPA in the form of a numerical grade? (Please provide your best guess in case you can't remember)

   Text Box

4. What is your year of birth?

   Text Box

5. What is your gender identity?

   - Man
   - Non-binary
   - Trans man
   - Trans woman
   - Woman
   - I prefer to write myself [Text Box]

6. What best describes your ethnicity or race? (Please select all that apply)

   - Asian (South; e.g. East Indian, Pakistani, Sri Lankan)Asian (South; e.g. East Indian, Pakistani, Sri Lankan)
   - Asian (Southeast; e.g. Vietnamese, Cambodian, Laotian, Thai)
   - Asian (West; e.g. Iranian, Afghan)
   - Arab
   - Black
   - Chinese
   - Filipino
   - Indigenous / First Nations
   - Japanese
   - Korean
   - Latin American
   - White

- Not stated. Please specify: [Text Box]

7. While at the University of Toronto, were you qualifying for domestic tuition?

   - Yes
   - No

8. Did you graduate this summer? Or in other words, are you a graduate of class 2023?

   - Yes
   - No

9. Does your first parent (e.g. father or mother) have a college degree or higher?

   - Yes
   - No
   - I don't know the educational background of my first parent.

10. Does your second parent (e.g. father or mother) have a college degree or higher?

    - Yes
    - No
    - I don't know the educational background of my first parent.

11. Do you have children?

    - No
    - Yes, I have one child.
    - Yes, I have two children.
    - Yes, I have three or more children.

12. You are a recent graduate. Have you already accepted a job offer to start after your graduation? Select all that apply.

    - Yes
    - No, but I am actively searching.
    - No. I will continue my studies this year and pursue an advanced degree.
    - No. My reason is not listed. Please Specify: [Text Box]

13. What is the job title of your new job? [If yes to Question 12]

    Text Box

14. What is your employment status once you have started your new job?

    - Full time

- Part time

15. What is your annual earned income (in CAD) at your new job? Please answer without commas or special characters (i.e. 10000 and not 10,000) If you are not currently employed, please write the annual earned income of your previous Job.[If seniority=Alumni]

    Text Box

16. Since you landed your first job after graduation, would you say that your earnings have: [If seniority=Alumni]

    - Declined or stayed the same
    - increased by 0-2 percent
    - increased by 2-5 percent
    - increased by 5-10 percent
    - increased by more than 10 percent

17. How many hours do you work in a normal week? Please answer in only numeral format and without commas, letters or special characters. Please round to the next full hour. Example: "6" and not "5 h 45 minutes"

    Text Box

18. What industry do you currently work in?

    See industry list in Table C3.

19. What is your job location?

    - Fully on-site
    - Partially on-site and partially remote
    - Fully remote

20. How much of your work involves working in a team (versus working by yourself?)

    - All of my work is in teams
    - Most of my work is in teams
    - Some of my work is in teams
    - None of my work is in teams

21. If you could choose industries to work in, what would be your order of preference? To indicate your order of preference, please drag the industries into the correct order, where Rank 1 indicates your most favorite industry and Rank 5 indicates your least favorite industry.

See industry list in Table C3.

Payment information Note that these individual-level data will not be shared with the Career Services. The Career Services will only receive aggregate results from the team of researchers.

22. What is your student ID number?

    Text Box

23. What is your email address? Note that if you don't provide your email address, we will be unable to compensate you for your participation.

    Text Box

24. (optional) Tick this box in case you would like to receive the research paper that is based on your survey answers.

    - Yes, please retain my email address and send me your research paper.

Job Choices In this portion of the study, we want to learn more about your job preferences. Specifically, you will be presented with thirteen scenarios. Each scenario offers you two different jobs. In each scenario, you will be asked to indicate which of the two jobs you prefer over the other. For the remainder of this study, please imagine you don?t have any work, school, or personal commitments right now and you could select this job and start it within the next 30 days. That is, think of this scenario as if you have no constraints and would be ready to start that job.

Note that each job offer is characterized by:

- Work culture, as described by previous employees
- Location
- Amount of teamwork
- Wage

These jobs are identical in all other aspects. Those other aspects include for example the working hours, commute, vacation days, and benefits package.

How do we define Work Culture? You will be shown excerpts of reviews about a work culture. Here is an example: "The workplace fosters a culture of friendly interactions. Instances of aggression are rare." These reviews shown to you resemble real reviews from current or past employees of real companies and have been standardized for the purpose of this study.

Below, we ask you some understanding questions. Since this is part of a research study, we want to make sure you understand what we ask you to do. You are able to continue with this survey once you answered all questions correctly.

25. **Understanding Questions:** In each scenario, what are you asked to do?

    - Close my eyes and randomly select one of the three job offers.
    - Carefully evaluate the two job offers and indicate which job I am most likely to accept and which job I am least likely to accept.

That's correct! You are now halfway through the survey - thank you for your participation!

Once you click "Next page," you will be presented with your first set of jobs.

Scenario X out of 13 Imagine you are offered the two jobs shown below. You learn about the work location, the amount of team work, and the pay from the offer letter. You also learn about the work culture from trusted and verified online sources (imagine for example online reviews from current and past employees which have been verified by numerous employees or persons close to you). The reviews shown to you below resemble real reviews and have been standardized for the purpose of this study.

26. Except for the characteristics below, please assume the jobs are the same in all other ways, including on characteristics not listed in the table. Please review the jobs and indicate below whether you prefer Job A or Job B.

    - Accept Job A
    - Accept Job B

27. Please provide your best guess to the following question: What percentage of respondents in this study will choose Job A over Job B? Note that you will receive $1 in additional pay if you guess correctly.

28. Please review the jobs and indicate below whether you prefer Job A or Job B. Recall that in this scenario, you don't have any work, school, or personal commitments and that you would start the job within the next 30 days.

    Percentage of respondents choosing A over B [Slider between 0 and 100]

    Congratulations, you have completed all thirteen scenarios!

    All that is left is the answering of four short multiple-choice questions. Please click "Next page."

29. What is the percent chance that you will experience... in the workplace in the next two years of your career? Note that this includes your current job and any future jobs you may accept and start within the next two years. [Slider between 0 and 100]

    - Lack of Satisfaction and Professional Growth
    - Lack of inclusion
    - Aggression
    - Sexual Harassment

30. How commonly do you experience satisfaction and professional growth, inclusion, aggression, or sexual harassment during a group/team project during your classes? Never, Rarely, Sometimes, Often, Always

    - Satisfaction and Professional Growth
    - Inclusion
    - Aggression
    - Sexual Harassment

31. How commonly do you experience satisfaction and professional growth, inclusion, aggression, or sexual harassment at a workplace? Never, Rarely, Sometimes, Often, Always

    - Satisfaction and Professional Growth
    - Inclusion
    - Aggression
    - Sexual Harassment

F.1 Field Partner Questions

Manuela Collis

32. Do you think a hostile workplace increases or decreases the level of creativity in a team?

- increases by a lot
- increases somewhat
- decreases somewhat
- decreases
- decreases by a lot
- I don't know / I can't tell

Annabel Thornton and Alex Ballyk

33. When deciding whether to apply to a particular job, with what frequency do you consider (Never, Rarely (less than 10 percent of the time, Occasionally (about 30 percent of the time), Sometimes (about 50 percent of the time), Frequently (about 70 percent of the time), Usually (about 90 percent of the time), Every time)

    - the number of other people that may be applying to that job?
    - how your qualifications may compare to those of others who may be applying to that job?
    - the time associated with completing an application process (for instance: writing a new cover letter, updating your CV, etc.)?

Department of Economics

34. Since you landed your first job after graduation, would you say that your earnings have:

    - Declined or stayed the same
    - increased by $0-2$ *percent*
    - increased by $2-5$ *percent*
    - increased by $5-10$ *percent*
    - increased by more than 10 *percent*

Department of Psychology

35. How helpful were the following for you in choosing you next steps after graduation: Not at all helpful, Slightly helpful, Moderately helpful, Very helpful, Extremely helpful, Did not access

- Psychology Department Mentorship Program
- Psychology Department Careers & Graduate Studies webpage
- Psychology Department faculty
- Psychology Department staff (the Undergraduate Administrator, etc.)
- Psychology Department graduate students, teaching assistants
- Psychology Department research opportunities (volunteer positions, PSY299, PSY399, PSY405, etc.)

Department of Sociology

36. How much do you agree with the following:

    - My current job is directly related to my studies in Sociology at U of T. Strongly agree/somewhat agree/neither agree nor disagree/somewhat disagree/strongly disagree
    - In the workplace:
        - I apply information, concepts and ideas from Sociology courses at U of T. Strongly agree/somewhat agree/neither agree nor disagree/somewhat disagree/strongly disagree
        - I apply skills for understanding texts and data from Sociology courses at U of T. Strongly agree/somewhat agree/neither agree nor disagree/somewhat disagree/strongly disagree
        - I apply skills in communication from Sociology courses at U of T. Strongly agree/somewhat agree/neither agree nor disagree/somewhat disagree/strongly disagree

F.2 Composition of Hostile Workplace Culture Attributes used in the Study

FIGURE F17. Seven Jobs used for the Choice Experiment

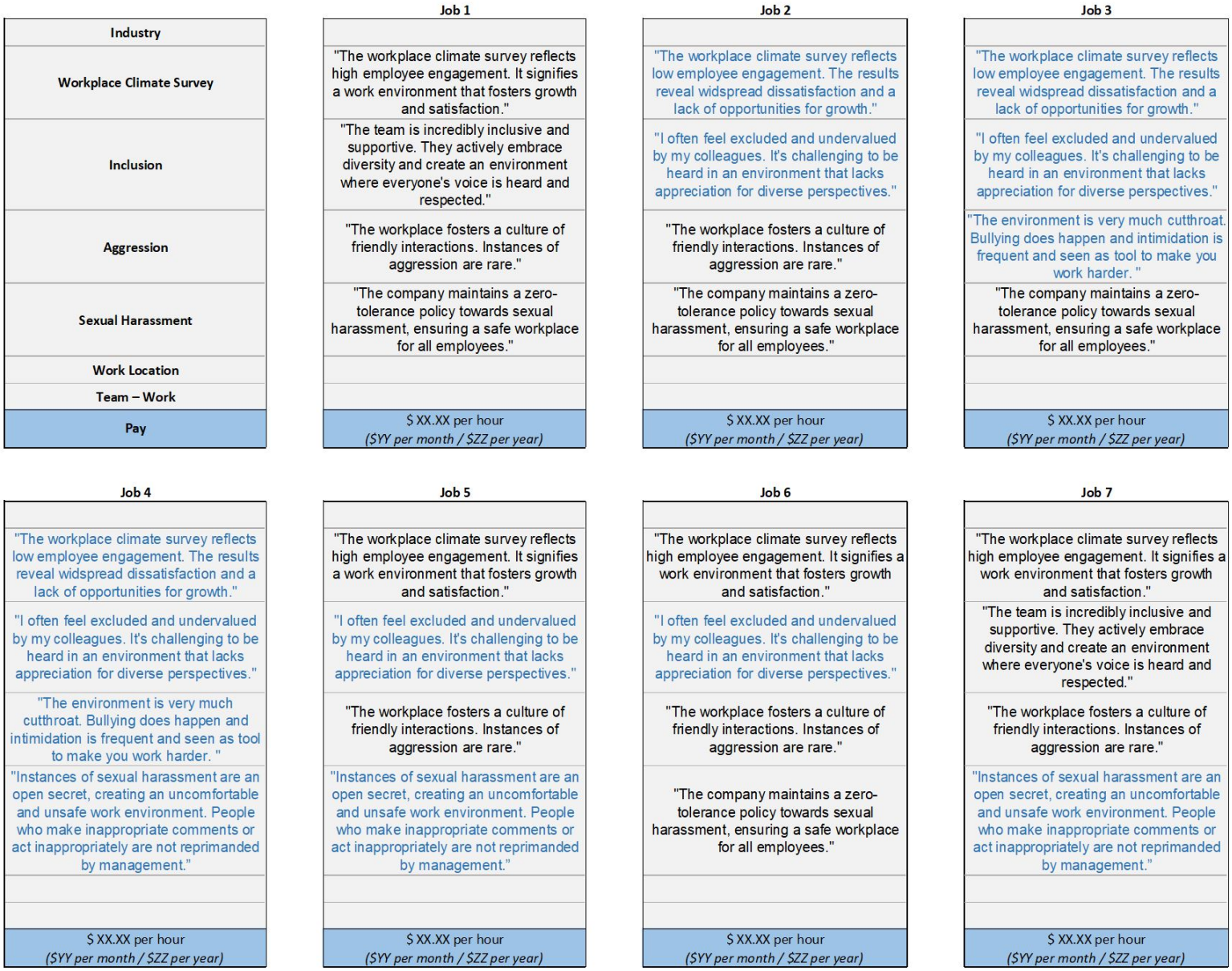


FIGURE F18. Scenario 12

	Job A	Job B
Workplace Climate Survey	"The workplace climate survey reflects high employee engagement. It signifies a work environment that fosters growth and satisfaction."	"The workplace climate survey reflects high employee engagement. It signifies a work environment that fosters growth and satisfaction."
Inclusion	"The team is incredibly inclusive and supportive. They actively embrace diversity and create an environment where everyone's voice is heard and respected."	"The team is incredibly inclusive and supportive. They actively embrace diversity and create an environment where everyone's voice is heard and respected."
Aggression	"The environment is very much cutthroat. Bullying does happen and intimidation is frequent and seen as tool to make you work harder. "	"The workplace fosters a culture of friendly interactions. Instances of aggression are rare."
Sexual Harassment	"The company maintains a zero-tolerance policy towards sexual harassment, ensuring a safe workplace for all employees."	"The company maintains a zero-tolerance policy towards sexual harassment, ensuring a safe workplace for all employees."
Work Location	You will complete all your tasks in-person at the office.	You will complete all your tasks in-person at the office.
Team-Work	"You sometimes complete projects by yourself and sometimes in teams."	"You sometimes complete projects by yourself and sometimes in teams."
Pay	**$ 38.44 per hour ($ 6662.5 per month / $ 79950 per year)**	**$ 28.13 per hour ($ 4875 per month / $ 58500 per year)**

FIGURE F19. Scenario 13

	Job A	Job B
Workplace Climate Survey	"The workplace climate survey reflects low employee engagement. The results reveal widspread dissatisfaction and a lack of opportunities for growth."	"The workplace climate survey reflects low employee engagement. The results reveal widspread dissatisfaction and a lack of opportunities for growth."
Inclusion	"The team is incredibly inclusive and supportive. They actively embrace diversity and create an environment where everyone's voice is heard and respected."	"I often feel excluded and undervalued by my colleagues. It's challenging to be heard in an environment that lacks appreciation for diverse perspectives."
Aggression	"The environment is very much cutthroat. Bullying does happen and intimidation is frequent and seen as tool to make you work harder. "	"The workplace fosters a culture of friendly interactions. Instances of aggression are rare."
Sexual Harassment	"The company maintains a zero-tolerance policy towards sexual harassment, ensuring a safe workplace for all employees."	"The company maintains a zero-tolerance policy towards sexual harassment, ensuring a safe workplace for all employees."
Work Location	You will complete all your tasks in-person at the office.	You will complete all your tasks in-person at the office.
Team-Work	"You sometimes complete projects by yourself and sometimes in teams."	"You sometimes complete projects by yourself and sometimes in teams."
Pay	**$ 28.44 per hour ($ 4929.17 per month / $ 59150 per year)**	**$ 33.13 per hour ($ 5741.67 per month / $ 68900 per year)**