

Pre-Analysis Plan

Sexual Harassment at the Workplace: The Role of Firm Policies and Managers

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Abstract

We describe a survey on sexual harassment at German workplaces which also includes a discrete choice experiment. In the discrete choice experiment we ask respondents to choose between fictitious jobs varying randomly in their attributes, which is a similar setup to [Folke and Rickne \(2022\)](#), [Maestas *et al.* \(2023\)](#) or [Nagler *et al.* \(2023\)](#). The experiment allows us to estimate the willingness to pay for several job characteristics including some which are linked to sexual harassment at the workplace. In the survey we also elicit whether respondents have experienced sexual harassment in their work environment, how they believe their firms would deal with cases of sexual harassment and which actions they perceive to be sexual harassment.

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1 Description of the study

We conduct a discrete choice experiment where respondents make several choices between two fictitious jobs varying randomly in their attributes. The set-up and analysis follows other discrete choice experiments such as [Folke and Rickne \(2022\)](#), [Maestas *et al.* \(2023\)](#) or [Nagler *et al.* \(2023\)](#).

Specifically we study:

1. Whether workers have a preference to avoid workplaces where cases of sexual harassment (SH) have occurred in the past.
2. Which role management characteristics (gender and age) and preventive measures against SH play.
3. Which individual and establishment-level characteristics drive these preferences. At the individual-level, this includes their demographics, employment history and their responses to this survey. In the survey we elicit whether individuals have experienced SH in their work environment in the past, which actions they believe would be taken against SH at their firm and which scenarios they would view as being SH. At the establishment-level relevant heterogeneities we seek to study includes number of employees, industry, and workforce composition such as share of female employees and whether the manager (or managers) is (are) female.

Sexual harassment is an important job attribute for workers' satisfaction and safety at a workplace. In contrast to other amenities such as vacation days, pay or flexibility in the job, this is an attribute that is not mentioned in job ads. Due to this, information about SH having occurred at the workplace is formulated as "word-of-mouth" information that one could have heard about a job ([Folke and Rickne, 2022](#)).

Dependent and independent variables

1. Individual preferences over characteristics of job will be measured through the discrete choice experiment. The reference categories in our analysis are highlighted in italics. The vacancy characteristics are:

- (a) Monthly earnings
 - i. *Same as current earnings*
 - ii. 5% more than current earnings
 - iii. 10% more than current earnings

(b) Vacation days per year

- i. *25 days*
- ii. 30 days

(c) Work environment

- i. You have heard about incidents at work in which unsolicited images with sexual content were distributed.
- ii. You have heard about incidents at work in which employees were unwantedly involved in conversations about their sex life.
- iii. You have heard about incidents in the company where employees have been asked to engage in unwanted sexual acts.
- iv. You have heard that in the past there have been conflicts about work processes between employees and their superiors.
- v. *You have no further information about the working environment.*

(d) Manager

- i. *Man, 37 years old*
- ii. Man, 62 years old
- iii. Woman, 37 years old
- iv. Woman, 62 years old

(e) Additional offers at the workplace

- i. Regular training opportunities
- ii. The firms has a works council
- iii. Impartial contact person and person of trust for cases of discrimination and sexual harassment
- iv. Regular training courses on the topic of sexual harassment
- v. *No further information*

2. Past cases of SH in respondents' career. We ask the following question with a binary "Yes/No" (or "Prefer not to say") response:

Have there been incidents of sexual harassment in your immediate working environment in your career to date?

If respondents answer "Yes", a follow-up question asks whether an incident of SH has occurred in their current establishment in the time period since respondents have worked there.

3. How would cases of SH be handled? We ask the following question with four potential responses, where respondents can indicate “Yes”, “No”, “I don’t know”.

Imagine there was a case of sexual harassment in your current workplace. How do you think it would be handled?

- (a) The supervisor or another manager would take care of clarifying the situation and taking the necessary measures.
 - (b) An impartial contact person and confidant for such cases would advise the affected person.
 - (c) Management would take appropriate measures against the harassing person, such as a warning, reprimand, or termination of the contract.
 - (d) There would be no support from management or the supervisor.
4. Which actions are perceived to be sexual harassment. We first ask the following question, after which respondents can again indicate “Yes”, “No”, “I don’t know” for each item.

There are different understandings of what constitutes sexual harassment in the workplace. In your opinion, does the following situation constitute sexual harassment in the workplace?

- (a) Employees are given compliments about their appearance.
- (b) Employees are shown images with sexual content without their consent.
- (c) In the workplace, sexual jokes are told.
- (d) Employees are involuntarily drawn into conversations about their sex life.
- (e) Employees are solicited for unwanted sexual acts.

Randomization In the discrete choice experiment each respondent will be presented with 6 pairs of randomly chosen hypothetical job vacancies. Every vacancy contains the five attributes described above in section 3. Two comparison groups are excluded because one job would be too strictly dominating the other one: 1. 10% higher earnings and 30 vacation days vs. same earnings and 25 vacation days and 2. 10% higher earnings and 30 vacation days vs. 5% higher earnings and 25 vacation days.

The variation in earnings lets us estimate the willingness to pay (WTP) for the different job attributes such that we can express their valuation in standard economic terms.

The other items in the survey are all shown to respondents in the same way without any randomization.

Sample The survey is part of an ad-hoc survey of the Online Panel for Labour Market Research (OPAL), which is run by the Institute for Employment Research (IAB). In total, OPAL has a pool of around 10,000 participants (Coban *et al.*, 2024). The ad-hoc module where our survey is included, is sent to a pool of all employed people in the OPAL pool (around 5,000). Due to the explicit and potentially traumatizing topic of our module, participants need to additionally opt-in to take our questionnaire about SH.

The first wave of the survey ran in December 2025 to January 2025. Due to a small coding error (the reference category for the characteristic *Work environment* was accidentally omitted), a second wave of the survey is running in August 2025 with a refreshment sample, i.e. only containing new respondents. Three additions have been made to the survey:

1. For the *Additional offers at the workplace* characteristics the option “The firm has a works council” was added.
2. After asking about past cases of SH in the working career, we added the follow-up question whether incidences have occurred in the current establishment.
3. When eliciting which situations are seen as SH, we added the item “In the workplace, sexual jokes are told.”

None of the added items affect the logic and structure of the survey as a whole meaning that for the analysis both survey waves can be pooled. Naturally we will assess differences between the two survey waves.

The first survey wave had a 2,900 respondents and a comparable number is expected for the second wave.

2 The analysis

To estimate the willingness-to-pay we transform the data such that each observation corresponds to one job choice presented in the discrete choice experiment. We create binary indicators for whether this job was chosen or not and indicators for all job characteristics (the omitted categories are listed in section 1). We then estimate a linear ordinary least square regression:

$$Y_{ijp} = \alpha_1 + \alpha_2 W_{ijp} + \alpha_3 E_{ijp} + \alpha_4 X_{ijp} + \epsilon_{ij}, \quad (1)$$

The indices i , j and p denote individual, jobs and job pairs, respectively. The vector W_{ijp} contains information on monthly earnings and the vector E_{ijp} contains information on the

work environment including past cases of sexual harassment. Other job characteristics are included in X_{ijp} . Standard errors are clustered at the respondent-level. The WTP estimates are calculated by transforming the regression coefficients for non-wage job characteristics by the weighted estimates for the wage increases, i.e. $\frac{1}{2}(\alpha_2^{5\%} + \alpha_2^{10\%})$. The estimation closely follows the one by [Folke and Rickne \(2022\)](#).

To study how the valuation for workplaces with reported sexual harassment interacts with manager characteristics or other offerings at the firm, we interact the indicators for sexual harassment with these other characteristics.

As a robustness check to the WTP estimates obtained from the linear probability model, we also estimate a conditional logit model as in [Maestas et al. \(2023\)](#) and [Nagler et al. \(2023\)](#). For this we assume that the choice process for a specific job is well approximated by a linear indirect utility function, where individuals derive utility from wage and non-wage job characteristics. Assuming that the error term follows an Extreme Value Type I distribution, we can estimate a conditional logit model to analyze respondents' preferences over sexual harassment, manager demographics and other vacancy characteristics:

$$Y_{ipv} = \frac{\exp(\beta_j X_{ipv} + \gamma W_{ipv})}{\exp(\beta_j X_{ipv} + \gamma W_{ipv}) + \exp(\beta_j X'_{ipv} + \gamma W'_{ipv})} \quad (2)$$

Y_{ipv} is a binary indicator for individual i choosing vacancy v in a pairwise comparison p . Non-wage vacancy characteristics are X_{ipv} and W_{ipv} are earnings in the job, where the apostrophe denotes characteristics of the job not chosen. The WTP for avoiding work environments with SH is calculated from the ratio of β_j and γ , i.e. the relative preference for SH and for wages. To establish whether participants have a different WTP to avoid SH depending on manager characteristics and other offers at the workplace related to preventive measures against SH, we also construct joint variables of SH and manager characteristics / preventive measures (e.g. an indicator variable equal to one if there were cases of SH and the manager is female).

For both the conditional logit and linear probability model, we will present estimates where we pool all types of sexual harassment, but will also report individual coefficients.

We are planning to conduct heterogeneity tests along several dimensions:

- Gender of the respondent (most results will be presented separately by gender)
- Age of the respondent
- Whether cases of SH have occurred in their work environment in the past
- Trust in their current firm to deal effectively with cases of SH

- How many described scenarios are seen as being SH
- Share of female workers at their current firm and in their occupation
- Rank in the earnings distribution in their current firm
- Educational attainment

For all heterogeneity analysis, we split the samples along the listed dimensions and run separate regressions to estimate the WTPs.

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