European Societies
https://doi.org/10.1162/euso_a_00040

Gender and Unemployment: A Vignette Experiment on Recruiters' Hiring Intentions in Sex-Segregated Occupations

Tamara Gutfleisch[ab]* and Robin Samuel[c]

[a]School of Social Sciences, University of Mannheim, Mannheim, Germany. ORCID: 0000-0002-8648-2105; [b]Mannheim Centre for European Social Research, University of Mannheim, Mannheim, Germany; [c]Department of Social Sciences, University of Luxembourg, Esch-sur-Alzette, Luxembourg. ORCID: 0000-0002-7598-197X

*School of social sciences, A5 6, 69159 Mannheim, Germany; tamara.gutfleisch@uni-mannheim.de

Bibliographical notes:

Tamara Gutfleisch is a temporary substitute professor at the Chair of Sociology, Societal Comparisons. Her research interests include discrimination, social stratification, work and employment, gender inequalities, and the integration of immigrants.

Robin Samuel is an Associate Professor at the Department of Social Sciences, University of Luxembourg. His research interests include transitions, work, inequalities, and research methods.

European Societies
https://doi.org/10.1162/euso_a_00040

Abstract

This study investigates the interplay between occupational sex composition and gender-specific unemployment patterns from the perspective of demand-side mechanisms, an area where existing research is scant. Experimental evidence suggests that unemployment is often perceived more negatively for men than women in hiring decisions. However, it is unclear how the disadvantages from unemployment and those associated with applying for gender-atypical jobs combine to (re-)produce gender inequality in re-employment chances. Utilizing secondary data from a multi-country vignette experiment, we examined how recruiters across different sex-segregated occupational fields assess male and female job applicants with unemployment experience. We found gender differences in the effect of unemployment, with disadvantages for men increasing with the share of women in an occupation. While the reverse pattern was observed in occupations with lower shares of women, the gender difference in unemployment effects was somewhat larger for men in female-dominated occupations. This was due to occupational variation in unemployment effects for both genders. However, focusing on applicants meeting the minimum skill requirements, only men's unemployment effect varied across occupational fields. Thus, occupational sex composition is an important factor in recruiter evaluations of unemployed applicants, intensifying the challenge of re-employment, particularly for men in female-dominated occupations.

Keywords: hiring, gender, unemployment, sex composition, vignette experiment

European Societies
https://doi.org/10.1162/euso_a_00040

Introduction

Occupational sex segregation is a characteristic of labor markets worldwide that continues to be a challenge for gender equality (England, 1992; Charles and Grusky, 2004). Recent research emphasized the role of occupational sex segregation and associated occupational characteristics for the career trajectories of men and women, particularly related to unemployment (e.g., Bächmann and Gatermann, 2017; Yavorsky and Dill, 2020; Bächmann, 2022; Kleinert *et al.*, 2023). For instance, according to results by Hägglund and Bächmann (2017), differences between female- and male-dominated occupations, such as vulnerability to external shocks, at least partially account for gender differences in re-employment chances after unemployment. However, little attention has been paid to the mechanisms operating at the demand side of employers that may contribute to gender-specific unemployment dynamics in the context of occupational sex segregation.

It is well-established that in sex-segregated labor markets, sex is a primary criterion used by employers to rank job candidates (Reskin, 1991; Sacchi, Kriesi and Buchmann, 2016). Meta-analyses of experimental studies showed that employers tend to discriminate against the opposite sex in female- and male-dominated occupations (Galos and Coppock, 2023). In sociology, role congruity theory (Eagly and Koenig, 2008) and the lack-of-fit model (Heilman, 2012) explain these hiring patterns as resulting from a (perceived) mismatch between gender stereotypes associated with applicants and the characteristics of the occupations (Koch, D'Mello and Sackett, 2015). Although unequal job opportunities due to unemployment are not commonly labeled as discrimination (see, e.g., Neumark, 2018), studies have shown that the societal meaning of unemployment has a gender-specific dimension (Heyne and Voßemer, 2022). However, it is unclear to what extent perceptions of unemployment intensify in segregated professions and how well the hiring patterns align with the patterns observed in prior supply-side studies.

Employers have a powerful position in the job matching process, as they can influence labor market outcomes independently of the jobseekers' intentions and motivations (Bills, Di Stasio and Gërxhani, 2017; Rivera, 2020). Focusing on the demand side enhances our understanding of how recruiters contribute to gender inequality in the labor market, providing a comprehensive picture of the role of occupational sex segregation in shaping gender differences in re-employment chances. For instance, by making it challenging for gender-atypical applicants to re-enter employment, employers may drive these workers out of certain occupations, thereby perpetuating occupational sex segregation. More broadly, examining the

European Societies
https://doi.org/10.1162/euso_a_00040

demand side sheds light on the conditions under which recruiters' hiring decisions may produce gender differences in re-employment chances. This is crucial given the negative short- and long-term effects of unemployment on a plethora of social and economic outcomes (Brand, 2015; Voßemer *et al.*, 2018; Clark and Lepinteur, 2019).

Against this background, we examined how recruiters in sex-segregated occupational fields evaluate male and female applicants with unemployment experience during hiring. Acknowledging that multiple social categories may intersect to create distinct forms of inequality (Browne and Misra, 2003), we combine the literature on the role of sex segregation on gender-specific unemployment rates, and the literature on gender discrimination in hiring. We used secondary data from a harmonized multi-country factorial survey experiment (FSE) on hiring intentions of real recruiters covering five occupational fields in four European countries.

In the following, we provide a brief overview of prior research, discuss theoretical arguments, describe our data and methods, present our results, and conclude.

Literature Review

The link between occupational sex segregation and gender inequality has been widely documented (e.g., Leuze and Strauß, 2014; Murphy and Oesch, 2016), but its impact on the unemployment risk of men and women has only recently gained attention. While several studies have examined gender-specific differences in the effects of unemployment on labor market outcomes, often referred to as 'scarring effects' (Hills, 1990; van den Berg and van Ours, 1996; Gangl, 2006; Luijkx and Wolbers, 2009; Cockx and Picchio, 2013; Helbling and Sacchi, 2014; Mavromaras, Sloane and Wei, 2015; Mooi-Reci and Ganzeboom, 2015), they have not specifically addressed the role of sex segregation.

However, some exceptions exist. In the US, unemployed men were found to be more likely to enter female-dominated occupations than men who transition directly to a new job, helping them mitigate negative effects such as wage loss (Yavorsky and Dill, 2020). However, this study did not address the experiences of unemployed men already working in female-dominated occupations or those of women. In contrast, two studies for Germany have analyzed how occupational sex segregation and its associated characteristics affect the unemployment risk of men and women (Hägglund and Bächmann, 2017; Bächmann, 2022). For instance, Hägglund and Bächmann (2017) found that men in male-dominated occupations were more

European Societies
https://doi.org/10.1162/euso_a_00040

likely to re-enter work than those in female-dominated occupations, while occupational sex composition did not affect women's re-entry into employment.

While prior studies provide valuable insights into the role of occupational sex segregation for gendered unemployment dynamics, they cannot separate mechanisms on the supply and demand side. Additionally, standard surveys often lack detailed information on recruiter, job, and company characteristics that may influence re-employment chances. Testing how the same recruiter evaluates unemployed men and women differently when hiring in sex-segregated occupations is difficult, if not impossible, with observational data. In contrast, field experiments (Bertrand and Duflo, 2017; Baert, 2018) or survey experiments (McDonald, 2019) allow to directly examine recruiters' hiring preferences while controlling for job seekers' characteristics. To fully understand the link between occupational sex segregation and gender-specific unemployment patterns, it is important to illuminate possible demand-side mechanisms.

Previous experimental studies on hiring decisions have focused either on occupation-specific gender discrimination or (gender differences in) unemployment effects. Survey experiments (Davison and Burke, 2000; Kübler, Schmid and Stüber, 2018; Bertogg *et al.*, 2020) and field experiments (Weichselbaumer, 2004; Riach and Rich, 2006; Yavorsky, 2019) have provided conclusive evidence that qualified men and women are disadvantaged when applying for jobs dominated by the other sex (Galos and Coppock, 2023). Regarding unemployment, many studies have suggested negative effects on hiring decisions (e.g., Oberholzer-Gee, 2008; Ghayad, 2013; Kroft, Lange and Notowidigdo, 2013; Nüß, 2018; Van Belle *et al.*, 2018; Farber *et al.*, 2019; Shi and Di Stasio, 2021; Weisshaar, 2021), with some indicating more detrimental effects for men (Eriksson and Rooth, 2014; Baert *et al.*, 2016; Pedulla, 2018). However, the role of occupational sex segregation in moderating these effects has not been considered. An exception is Pedulla's study (2016), which suggests that the sex composition of an occupation does not influence gender differences in the effect of part-time work on hiring decisions for skilled workers in the US. In our study, we aim to further clarify the role of occupational sex segregation in recruiters' hiring intentions toward men and women with unemployment experience.

Theoretical Background

Gender Discrimination in Sex-Segregated Occupations

The literature on gender stereotypes provides extensive documentation of deeply entrenched adherence to descriptive and prescriptive stereotypes (Ellemers, 2018; Manzi, 2019). Status

European Societies
https://doi.org/10.1162/euso_a_00040

characteristics theory posits that gender stereotypes are widely shared beliefs about how men and women should be and behave, and these stereotypes are activated in contexts where gender is a salient characteristic (Ridgeway, 1997; Ridgeway and Correll, 2004). Masculine traits are associated with achievement-relevant characteristics, such as decisiveness, competence, and autonomy, whereas feminine traits are associated with communal characteristics, such as nurturing, caring and warmth (Kite, Deaux and Haines, 2008).

Building on this notion, role congruity theory (Eagly and Karau, 2002; Eagly and Diekman, 2005) states that gender bias emerges from the perceived incongruence between characteristics ascribed to a given gender and those believed to be necessary to perform certain tasks successfully. In the workplace, this perceived lack of fit between gender-stereotypical attributes and specific task requirements is thought to determine competence evaluations (Heilman, 1983, 2001). Consequently, lower competence is assigned to men aspiring to perform female-typical tasks and vice versa for women. The sex composition of an occupation heightens the salience of gender, influencing whether it is considered male- or female-typed (Cejka and Eagly, 1999; Levanon and Grusky, 2016). As previously stated, the hypothesis that men and women face discrimination when applying for gender-atypical jobs has been repeatedly corroborated through field and survey experiments (Koch, D'Mello and Sackett, 2015; Galos and Coppock, 2023), with some studies suggesting that gender-specific hiring discrimination may be stronger for men than for women (Birkelund, Janz and Larsen, 2019; Yavorsky, 2019). Recent evidence from a harmonized field experiment conducted across six countries further support this, indicating that discrimination is prevalent against men in female-dominated jobs, but not against women in male-dominated jobs (Birkelund *et al.*, 2022). This pattern may suggest evolving femininity norms that have led to greater acceptance of women in traditionally male roles, while masculinity norms have remained rigid. Building on this research, we explore how role (in)congruity may affect recruiters' evaluation of unemployed men and women across sex-segregated occupational fields.

Gender and Unemployment

Studies have shown that recruiters associate unemployment with negative worker qualities, such as low motivation, ambition, and competence (Atkinson, Giles and Meager, 1996; Devins and Hogarth, 2005; Karren and Sherman, 2012; Bonoli, 2014; Van Belle *et al.*, 2018). While, in economics, human capital theories focus primarily on the importance of unemployment as a signal of skill deterioration (Becker, 1964; Nunley *et al.*, 2017), signaling theory emphasizes the importance of such stereotypes (Spence, 1973), which might be particularly relevant in

European Societies
https://doi.org/10.1162/euso_a_00040

situations where the true productivity of job candidates is unknown, such as the initial screening phase of the hiring process. However, studies show that past unemployment experiences affect the future employment prospects of men and women differently.

Masculinity norms emphasize full-time, permanent employment as central to men's role as financial providers to their families (Michniewicz, Vandello and Bosson, 2014), whereas female stereotypes reinforce women's traditional roles in domestic and care work (Ellemers, 2018). In line with research on gender discrimination, research suggests that norms about women's role in the family and the labor market have evolved (England, 2010; Scarborough, Sin and Risman, 2019), while masculinity norms have remained particularly strong (Rao, 2020). For example, men's unemployment has been linked to a higher likelihood of divorce in heterosexual couples compared to women's unemployment (Killewald, 2016; Gonalons-Pons and Gangl, 2021). Additionally, societal work norms and preferences have been identified as key drivers of gender differences in the effect of unemployment on subjective well-being (Heyne and Voßemer, 2022).

Similarly, gender-specific perceptions of unemployment may explain why recruiters are more reluctant to hire men with unemployment experience than women, as shown by prior experimental studies. On the one hand, women may face lower hiring chances than men after a spell of unemployment due to associations with family responsibilities and the lower expected productivity of mothers (Correll, Benard and Paik, 2007). On the other hand, recruiters may expect deviations from standard employment in women's employment trajectories (owing to family responsibilities), making unemployment a noisy signal for women's productivity (Mooi-Reci and Ganzeboom, 2015; Pedulla, 2016). Consequently, recruiters may rely less on employment gaps when assessing the productivity of women compared to men. Accordingly, without considering occupational gender segregation, we expect, in line with previous research, that unemployment will have a more negative impact on the employment prospects of men than of women (Hypothesis 1).

Gender and Unemployment in Sex-Segregated Occupations

Valuable insights into how sex composition may moderate unemployment effects for men and women can be drawn from the intersectional literature on inequalities (Crenshaw, 1989; Browne and Misra, 2003; McCall, 2005; Choo and Ferree, 2010). Accordingly, multiple social categories may interact, shaping unique forms of (dis)advantage experienced by specific social groups. Although intersectional perspectives have predominantly been applied to understand intersections of gender and race/ethnicity in the literature on hiring decisions (Bursell, 2014;

European Societies
https://doi.org/10.1162/euso_a_00040

e.g., Di Stasio and Larsen, 2020), we apply a similar perspective to theorize the moderating effect of occupational sex segregation for gender-specific unemployment effects in hiring intentions. To develop our argument, we draw on both the literature on gender discrimination in hiring and the literature on gender-specific unemployment effects, as discussed above.

On the one hand, belonging to multiple negatively stereotyped groups may lead to greater disadvantage, a phenomenon known as the 'amplified congruence' effect (King, 1988; Pedulla, 2018). For men, having unemployment experience should particularly affect recruiters' hiring intentions in female-dominated jobs. This is because of lower expected competence due to role incongruence and due to unemployment, factors that may amplify each other's impact. As men are seen as more competent in male-dominated occupations, according to role congruity theory and the lack-of-fit model, unemployment should matter less for recruiters' evaluation of their competence than in female-dominated occupations. Based on the assumption that unemployment is *per se* a negative characteristic for both genders, unemployment for women should particularly impact their chances of re-employment in male-dominated professions. Based on the amplified congruence effect, we would therefore expect that gender differences in the effect of unemployment to the disadvantage of men are more pronounced in female- than in male-dominated occupations.

Hypothesis 2a: For men, unemployment experience has a more negative effect on recruiters' hiring intentions in female-dominated than in male-dominated occupations.
Hypothesis 2b: For women, unemployment experience has a more negative effect on recruiters' hiring intentions in male-dominated than in female-dominated occupations.

On the other hand, as discussed within the literature on intersectionality, exhibiting two negatively stereotyped characteristics does not necessarily result in a double disadvantage (Purdie-Vaughns and Eibach, 2008). As individuals fitting into two (or more) negatively stereotyped categories may not be considered prototypical of their respective group, it might be harder to assign negative labels than in the case of a single deviation (Ridgeway and Kricheli-Katz, 2013). Similarly, the notion of 'muted congruence' (Pedulla, 2018) suggests that when the stereotypes of two social categories align, the combined effect might be attenuated rather than amplified. Since masculinity and ideal worker norms are more prevalent in male-dominated occupations (Acker, 1990), women and men might be judged by different standards and recruiters might be more reluctant to hire men than women with unemployment experience. For women, the negative associations with unemployment align with the lower expected

European Societies
https://doi.org/10.1162/euso_a_00040

competences due to role incongruency, which is why they may not experience additional disadvantages. For the same reasons, unemployment might be less relevant for recruiters' hiring intentions towards men than women in female-dominated occupations. Based on the muted congruence effect, we would therefore expect that gender differences in the effect of unemployment to the disadvantage of men are more pronounced in male- than in female-dominated occupations.

> Hypothesis 3a: For men, unemployment experience has a more negative effect on recruiters' hiring intentions in male-dominated than in female-dominated occupations.
> Hypothesis 3b: For women, unemployment experience has a more negative effect on recruiters' hiring intentions in female-dominated than in male-dominated occupations.

Overall, these theoretical ideas primarily apply to occupational contexts that are sex-segregated, as role congruity theory posits that in such contexts gender becomes a salient characteristic activating gender stereotypes. While we cannot directly test these mechanisms, as we have no measure of actual stereotypes, we can empirically examine whether occupational sex composition matters for gender-specific unemployment effects on re-employment chances. Assuming that unemployment is *per se* negatively associated with hiring intentions due to expectations of lower competence for both genders, we hypothesize that the sex composition of an occupational field moderates how unemployment is associated with recruiters' hiring intentions for men and women. If there is no significant interaction effect between being male, unemployment, and sex composition, this can be interpreted as evidence that neither the amplified nor muted congruence mechanisms are at play. In this case, the effect of unemployment (and potential gender differences) is likely driven by stereotypes associated with unemployment (and gender-specific employment trajectories) more broadly, rather than by the interaction with gender stereotypes specific to the occupation. A positive moderation effect would support the idea of muted congruence, indicating that the difference in hiring intentions between men with and without unemployment experience decreases as the share of female workers increase. In other words, muted congruence is supported when the difference in hiring intentions between men with and without unemployment experience is smaller than the difference between women with and without unemployment experience in female-dominated occupations (and vice versa in male-dominated occupations). In contrast, a negative moderation effect would indicate amplified congruence, i.e., more negative effects of unemployment as the share of female workers increases (decreases) for men (women). However, the results do not

European Societies
https://doi.org/10.1162/euso_a_00040

necessarily need to be symmetrical. Given the evidence on evolving gender stereotypes regarding the role of women in the labor market, the moderating effect of occupational sex composition might be more relevant for men.

Methods

Data

We used data from a multi-country online recruiter survey and FSE conducted in Bulgaria, Greece, Norway, and German-speaking Switzerland in 2016 (Hvinden, O'Reilly, *et al.*, 2019; Hyggen *et al.*, 2022).[1] This data was not specifically designed to address our research question, which comes with certain challenges.[2] The recruiter survey aimed at studying demand-side mechanisms in the inclusion and exclusion of young adults in the labor market, focusing on the impact of education systems, labor market conditions and employment policies (Shi, Imdorf and Samuel, 2015). Accordingly, the four countries were selected due to their economic and institutional differences in terms of, for example, education systems and employment protection regulations (Imdorf *et al.*, 2017). Although opportunity structures at various levels of analysis may play a role in hiring discrimination (Petersen and Saporta, 2004), theorizing about country differences in the context of gendered unemployment effects was beyond the scope of this study. We focus on occupational sex segregation, which is pronounced in all four countries (Bertogg *et al.*, 2020). Lacking strong theoretical arguments for the selection of specific countries, we further decided to include all countries in our analysis and control for between-country differences in our statistical analyses. We test the influence of single countries on our results in sensitivity analyses.

The survey was administered in the respective national languages and covered narrowly defined and internationally comparable occupations in five labor market sectors: healthcare, mechanics, information and communication technology (ICT), catering, and finance (NEGOTIATE, 2020). These occupational fields provide a heterogeneous sample of jobs in terms of the proportion of female and male workers, which makes the data useful for our research purposes. The occupations were selected based on 4-digit codes of the International Standard Classification of Occupations 2008 (ISCO-08; see Table S1 in the online supplement for the selected occupations). Recruiters were sampled through online job advertisements for

[1] The data is available as a scientific use file. Researchers can apply for data access at the Norwegian centre for research data (NSD). We used the following version: https://doi.org/10.18712/NSD-NSD2644-V3. Neither the data creator, contributor, distributor, or funder is responsible for any analysis or interpretations of data.
[2] The data could be considered secondary in the sense that the first author was not involved in its collection. However, the second author did participate in the data collection process.

European Societies
https://doi.org/10.1162/euso_a_00040

entry-level jobs in each occupation (one vacancy per company and recruiter). Hence, the sample comprised recruiters responsible for filling an advertised vacancy in the relevant occupational field during the survey period (Hyggen *et al.*, 2016). Vacancies were selected using predefined criteria for job titles in each occupation to maximize the comparability of vacancy samples across the four countries. Recruiters were assigned a specific occupational field in the survey based on the real vacancy used for sampling. At the beginning of the survey, recruiters were reminded of the vacancy by being shown a screenshot of the job advertisement. To ensure the vacancy remained prominent throughout the questionnaire, a thumbnail of the job advertisement was displayed on each survey page.

Each recruiter was asked to rate experimentally manipulated descriptions of fictitious applicants (*vignettes*) applying for the advertised vacancy (see NEGOTIATE, 2020 for a detailed description of the experimental design). The vignettes varied across the levels of four experimental variables: (1) education and work experience, (2) unemployment experience, (3) gender, (4) and a country-specific factor (Table 1). Gender, unemployment experience, and education and work experience were operationalized in the same way in all occupations and countries. The fourth experimental variable captured a factor relevant to the specific national context (such as job-hopping or experiences abroad). Gender and unemployment experience were the study's primary variables. Due to the experimental design, these variables are orthogonal to the other applicant characteristics. All applicants had national citizenship and five years of labor market participation. The educational credentials and job titles were adapted to national standards (NEGOTIATE, 2020). The vignettes depicted a timeline for the applicant's education and employment trajectory (similar to a CV). Figure 1 shows an example vignette from Switzerland (with English translations of the German original).

Table 1. Vignette Dimensions and Levels

Education and work experience
Lower-secondary education and sector-specific low-skill job
Sector-specific upper secondary education and sector-specific middle-skill job
Sector-specific tertiary education and sector-specific high-skill job
Lower-secondary education and non-sectoral low-skill sales job
Non-sector-specific upper secondary education and middle-skill sales job
Non-sector-specific tertiary education and high-skill sales job
Lower-secondary education and work experience in call center
Sector-specific upper secondary education and work experience in call center
Sector-specific tertiary education and work experience in call center
Unemployment
No unemployment
Ten months of unemployment after graduation
Twenty months of unemployment after graduation
Ten months of unemployment between jobs
Twenty months of unemployment between jobs

European Societies
https://doi.org/10.1162/euso_a_00040

Ten months of current unemployment	
Twenty months of current unemployment	
Gender	
Male	
Female	
National experimental variables	
Bulgaria	
International work experience	
No international work experience	
Switzerland	
Job-hopping	
No job-hopping	
Norway and Greece	
ALMP participation during unemployment	
No ALMP participation during unemployment	

Note: Table by authors based on NEGOTIATE (2020). ALMP = active labor market program.

The experimental design comprised 252 vignettes (i.e., possible combinations of all vignette levels). From this universe, 162 vignettes were sampled in Norway and Switzerland and 90 in Bulgaria and Greece. A so-called D-efficient sampling technique was used to optimize variance (i.e., equal frequency of levels) and orthogonality (i.e., no correlation between vignette variables and their interactions) in the vignette sample (Dülmer, 2007, 2016).[3] The vignettes were allocated to several decks with nine vignettes each. Some vignettes represented a mismatch between the applicant's work experience and educational level and the requirements of the relevant vacancies (Table 1). As a reference, each deck was assigned an additional vignette free from any potentially negative signals (Hyggen *et al.*, 2016). Thus, each recruiter was randomly assigned one set of ten vignettes.

[3] D-efficiency can range between 0 and 100, whereby 100 means perfect orthogonality and level balance. The latter is given by design in the full vignette universe. The literature recommends D-efficiency values above 90 in the vignette sample to maintain the benefits of the experimental design (Auspurg and Hinz, 2015). Regarding the identification of all main effects and the effects of all two-way interactions between vignette variables, the 20 FSEs exhibit a D-efficiency close to 100 (NEGOTIATE 2020, 93).

European Societies
https://doi.org/10.1162/euso_a_00040

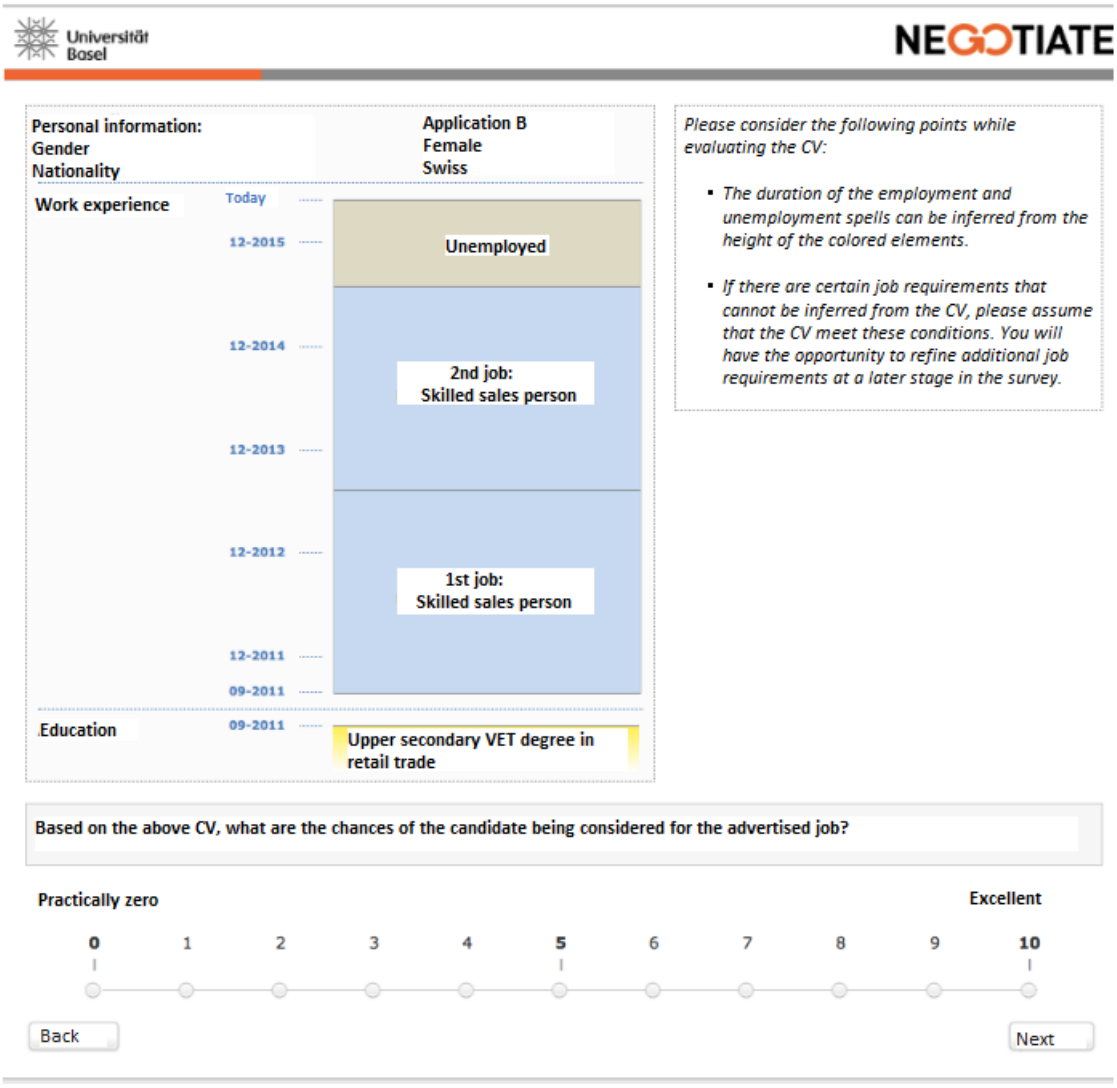

Figure 1. Example Vignette. Note: Original vignette (in German) from NEGOTIATE (2020, 20). Adjusted and translated to English based on Shi and Di Stasio (2021, Figure 1).

A general recommendation is to use not more than 10 vignettes per respondent and between five and nine vignette dimensions (Auspurg and Hinz, 2015). A high number of vignettes per respondent may lead to learning or fatigue effects. Inconsistencies in response behavior were found in a general population survey with complex designs including more than 10 vignettes per person and eight vignette dimensions, yet mostly among the lower educated and respondents unfamiliar with the topic (Sauer *et al.*, 2011). In contrast, however, recruiters are used to evaluating multiple application documents (that typically include more information than presented in vignette studies). The number of vignettes shown to respondents in employer studies varies, with some designs involving more than 10 vignettes per respondent (e.g., Di Stasio and Van De Werfhorst, 2016; Fossati, Liechti and Auer, 2019). Still, to account for possible learning effects or fatigue effects, we control for the vignette position in our statistical

European Societies
https://doi.org/10.1162/euso_a_00040

analysis (see Analytical Strategy). While a low number of vignette dimensions can sometimes limit the information available for making judgments or lead to fatigue effects, the experiment, though involving only four dimensions, incorporates a nuanced design that captures additional complexity at a theoretical level; for example, by combining the level and field specificity of education in a single dimension. Although real-world CVs might include more information, the vignette dimensions cover key variables that can be considered relevant to each hiring process. Therefore, we do not expect the number of dimensions to significantly impact the validity of our findings. The recruiters evaluated the vignettes in sequential order. The order of vignettes was randomized across recruiters to avoid order effects. All correlations between vignette levels are close to zero, indicating efficient estimation (see Table S2 in the online supplement).

We estimated the share of female workers in each occupational field and country based on data from the European Union Labor Force Survey (EU-LFS) as an indicator for whether the hiring context is male- or female-typed (see Di Stasio and Larsen, 2020 for a similar approach). While the sex composition is considered a good indicator for whether an occupation is male- or female-typed (Cejka and Eagly, 1999), stereotypes remain unobserved in our study. Therefore, as already indicated, we cannot disentangle the effect of stereotypes from additional characteristics of the occupational fields. Nevertheless, our research design allows us to contribute to supply-side studies by assessing the role of occupational sex segregation on recruiters' hiring intentions in the context of unemployment (see also our discussion). We could only identify the occupational sector, not the single occupations that were targeted within each sector in the experimental data. Therefore, we aggregated the share of female workers for those occupations that were targeted in the sampling process for each sector at the three-digit ISCO-08 level.[4] The share of female workers was further averaged across five years preceding data collection of the recruiter survey and the survey year (2011–2016). Table 2 presents the share of female workers across labor market sectors and countries. Consistent with prior research (Jacobs, 1989; Torre, 2018; Torre and Jacobs, 2021), sectors were categorized as male-dominated if females constituted 33.3% or less of their workforce, and as female-dominated when the female share exceeded 66.6%. The healthcare field was strongly female-dominated across countries, whereas the mechanics and the IT sector were strongly male-dominated. Catering and finance jobs were gender-balanced as per our definition, with a slightly higher share of women than men in catering jobs and a slightly lower share in finance jobs. As discussed, our intersectional hypotheses apply to sex-segregated occupations where gender is a salient characteristic. However, despite common thresholds to define female- and male-

[4] For Bulgaria, the LFS only provides data at the two-digit ISCO-08 level.

European Societies
https://doi.org/10.1162/euso_a_00040

dominated occupations, as applied in this study, we cannot be sure of the threshold at which gender becomes salient. This is why we decided to include gender-balanced occupations in our analysis. Note, however, that there is some variation in the share of female workers between occupations within the finance and catering sectors in that single occupations present as male- or female-dominated (see Table S3 in the online supplement for the share of female works across two- and three-digit ISCO codes within each occupational field and sector). We discuss the limitations of this variation in our discussion.

Table 2. Share of Female Workers Across Occupational Fields and Countries

	Finance	Health	IT	Mechanics	Catering
Bulgaria	62%	83%	29%	8%	59%
Switzerland	37%	89%	11%	9%	56%
Greece	49%	83%	22%	4%	42%
Norway	44%	87%	17%	3%	55%

Note: Data from EU-LFS 2011-2016, weighted average numbers by tree-digit ISCO-08 codes for each occupation within labor market sectors (two-digit ISCO-08 codes for Bulgaria). IT=Information technology.

Measurements

Our dependent variable was the vignette ratings. The recruiters were asked the following question for each vignette: *Based on the above CV, what are the chances of the candidate being considered for the advertised job?* Answers were on an 11-point scale ranging from 0 (practically zero) to 10 (excellent) (NEGOTIATE, 2020, 26). The question is relatively broad, which fits with the idea that hiring *decisions* are usually based on multiple factors, such as interviews and assessment tests. Accordingly, in this study we operationalize the vignette ratings as representing the hiring *intentions* of recruiters in a broader sense. The recruiters were given the opportunity to indicate further relevant applicant characteristics after the experiment. As the distribution of vignette ratings is right skewed in the data, we logged the vignette ratings for our analyses.

Our independent variables were the applicants' unemployment experience and gender, as well as the share of female workers in each occupational context. Our theoretical considerations focus on the global effect of past unemployment experiences on subsequent hiring intentions. The experimental design of our data also addresses different lengths and timing of unemployment periods, which, however, is beyond the scope of this study (but see our sensitivity analyses). Therefore, we measured unemployment through a dichotomous variable, where 1 indicated the presence of a previous unemployment spell (independent of the

European Societies
https://doi.org/10.1162/euso_a_00040

duration or timing of that spell) and 0 was the absence of such a spell. The applicant's gender was also measured dichotomously (1 = male).

The remaining experimental variables (education and work experience and the experimental country-specific variable) were used as control variables. For better readability of the results tables, the variable education and work experience was split into two variables (educational level and sector specificity of education and work experience). We adjusted for primacy effects (i.e., that the first vignette was rated differently), overall occupational differences (by including dummies for each occupational field), and between-country differences.

Analytical Strategy

For our analysis, we pooled the data from 20 harmonized FSEs (four countries and five occupational fields) and combined it with the information on the share of female workers. Consequently, in line with our research question, we focus on variation between occupational fields, but assessed the potential role of country characteristics in our sensitivity analyses.[5] Each recruiter rated several vignettes; therefore, the vignette ratings are nested within recruiters.[6] We estimated linear multilevel regression models with a random intercept to consider this hierarchical data structure (Hox, 2010; Auspurg and Hinz, 2015). For our analyses, we only used the ratings of the vignettes that were part of the actual experiment. We excluded the ratings of the additional vignette that was included as a reference in each vignette set because this vignette implies a loss of orthogonality and level balance and, thus, efficiency in the estimation.

In addition to estimating a model only including the main effects (Model 0), we tested our hypotheses using the following steps. In the first model, we included an interaction term between applicants' gender and unemployment experience while controlling for the share of female workers and the other control variables (Model 1). In the second model, we included a three-way interaction term between the applicants' gender, unemployment experience, and the share of female workers within an occupation (Model 2).[7] Recognizing that the importance of

[5] An additional complexity arises as average treatment effects might not be comparable across countries when pooling data obtained from FSE (see Sacchi and Samuel, 2024). We tested this possibility using the strategy presented in Sacchi and Samuel (2024), but did not find substantive differences in our case.

[6] One might argue that recruiters are further nested within occupational field × country cells. The distributional assumptions and unrelatedness assumption of the implied three-level model with random intercepts may, however, not hold. Nevertheless, we estimated the model and found only one substantial difference, pertaining to the estimate of the two-way interaction "CV with unemployment × Male" which turned significant (p was .064 in two-level model). A full table is presented in Online Supplement Table S9.

[7] It has been argued that when testing cross-level interactions, random slopes of its lower-level components should be included (Heisig and Schaeffer, 2019). While it is unclear how the simulation setting of Heisig and Schaeffer translates to our case, we extended our three-level model estimated in Footnote 6 accordingly, yielding results that

European Societies
https://doi.org/10.1162/euso_a_00040

educational attainment and the specificity of the occupational field may differ across institutional contexts, we included interactions between the experimental variables for education and work experience and the indicators for each country in all our models in addition to the country fixed effects. Since our models include complex interactions, we calculated and graphed the marginal effects of our key variables to facilitate interpretation of our results (Williams, 2012). We also present reduced tables, only showing the main results. Full regression tables are in Appendix A in the online supplement. We performed sensitivity analyses to assess the robustness of our findings.

Sample

After excluding missing observations on the vignette ratings and other relevant respondent-level characteristics used for sensitivity analysis (see Sensitivity analysis), our sample included $N = 18{,}681$ vignette ratings from $N = 2{,}187$ recruiters across the five occupational fields and four countries. In the data, recruiters are defined as individuals responsible for filling a given vacancy, regardless of whether they have received specialized training. Table S4 in the online supplement presents an overview of the sample sizes across countries and occupational fields.

Results

Main results

Table 3 shows the estimates of linear multilevel regression analysis predicting recruiters' hiring intentions. Model 0 presents the main effects of having a CV with unemployment spell, gender (i.e., being male), and the share of female workers. A previous unemployment spell decreases hiring intentions by about 4%. We do not find a statistically significant overall effect of being male or the share of female workers. Model 1 includes an interaction effect between gender and unemployment. The main effect of gender (i.e., being male) in Model 1 refers to men without unemployment experience. This effect is positive but not statistically significant. The interaction term of interest in Model 1 (*CV with unemployment* × *Male*) is negative, per our expectations, and indicates that unemployment has a more negative effect on recruiters' hiring intentions for men than for women. However, the effect is small and not statistically significant at conventional levels. Thus, we found no support for Hypothesis 1.

were substantially similar to those reported for Model 2 in Table 3. A full table is provided in Online Supplement Table S10.

European Societies
https://doi.org/10.1162/euso_a_00040

To test the moderating role of the share of female workers, we turn to Model 2 in Table 3, which includes the interaction term with our key variables (*CV with unemployment × Male × Share of females)*. This term is negative and statistically significant, suggesting that recruiters' hiring intentions towards men with unemployment experience decrease with the share of female workers. For the highest observed share of female workers in our sample (89%), the hiring intention towards unemployment men is reduced by −0.28 points on the original rating scale, compared to unemployed women. This corresponds to about the average marginal effect of having a tertiary education versus having upper secondary education. To further ease interpretation, Figure 2 shows how the gender differences in marginal effects of unemployment varies with the share of female workers based on Model 2. It is evident that the effect of unemployment on hiring intentions seemed to be less negative (even positive) for male than female applicants in occupational fields with a low share of female workers but more negative in occupational fields with a high share of female workers. No significant gender differences were observed in gender-integrated occupations. This is due to variation in both gender's unemployment effects across occupational fields (see Figure A1 in the appendix which shows the marginal effects of unemployment separately for men and women). The patterns are symmetrical for men and women: in gender-typical occupational fields, unemployment effects are not statistically significant and close to zero, whereas in gender-atypical occupations unemployment effects turn negative and statistically significant. Overall, our results support Hypotheses 2a/2b in that the sex composition seems to moderate unemployment effects for men and women in line with an amplified congruence effect, and contradict Hypotheses 3a/b.

Table 3. Regression Coefficients Predicting Logged Vignette Ratings (i.e., Hiring Intentions)

	Model 0	**Model 1**	**Model 2**
CV with unemployment *(ref: CV without unemployment spell)*	−0.039***	−0.035	−0.096**
	(0.012)	(0.018)	(0.034)
Male *(ref: Female)*	0.004	0.013	0.041
	(0.007)	(0.026)	(0.047)
Share of female workers (in %)	0.004	0.004	0.004
	(0.002)	(0.002)	(0.002)
Two-way interactions			
CV with unemployment × Male	/	−0.010	0.097
	/	(0.029)	(0.053)
Male × Share of females	/	/	−0.001
	/	/	(0.001)
CV with unemployment × Share of females	/	/	0.001*
	/	/	(0.001)
Three-way interactions			

European Societies
https://doi.org/10.1162/euso_a_00040

CV with unemployment × Male × Share of females	/	/	−0.002*
	/	/	(0.001)
Random effects parameters			
Level 2 (Recruiters): Standard deviation	0.506	0.506	0.506
	(0.009)	(0.009)	(0.009)
Level 1 (Vignettes): Standard deviation	0.529	0.529	0.528
	(0.005)	(0.005)	(0.005)
Number of ratings (vignettes)	18,681	18,681	18,681
Number of recruiters	2,187	2,187	2,187

Source: NEGOTIATE; Control variables not shown but included in all models are the remaining experimental variables, country fixed effects, occupation fixed effects, interactions between country fixed effects and vignette education and work experience, and vignette order. Full model in Appendix A.
***$p < 0.001$, **$p < 0.01$, *$p < 0.05$ (two-tailed tests).

Figure 2. Gender Differences in Marginal Effect of Unemployment (in Original Rating Scale) by Share of Female Workers. Source: NEGOTIATE. Note: Dashed lines are 95% confidence intervals. Primacy effects and the country-specific experimental variables (see Table 1) set to zero for calculation of marginal effects.

Sensitivity analysis

We performed sensitivity analyses to assess the robustness of our findings. First, although useful to answer our research questions, the experimental design was not specifically designed for our purposes. As indicated and per design, some vignettes likely exhibited a mismatch

European Societies
https://doi.org/10.1162/euso_a_00040

between the applicant's educational credentials and work experience and the job requirements of a given real vacancy (see Table 1). However, educational level and field specificity are critical sorting criteria during the hiring process (Di Stasio and Van De Werfhorst, 2016; Di Stasio, 2017). As skill requirements typically vary between jobs, the fit between the hypothetical applicants and the real vacancies might therefore vary at the vacancy level. Applicants without the right credentials required for the job might be screened out from the onset, regardless of other characteristics such as gender or unemployment (Shi *et al.*, 2018). Thus, we tested whether our results vary with the applicant-vacancy fit. To this end, we included a dummy variable that equaled 1 if the applicant matched the vacancy's requirements based on occupational experience, educational credentials, and level of education, and 0, if otherwise. Information on the minimum job requirements of the real vacancies was collected prior to the FSE in the recruiter survey (NEGOTIATE, 2020). The patterns observed in our results were slightly more pronounced when applicants matched the minimum job requirements and suggest a stronger penalty for male applicants in gender-atypical occupations. The results of these analyses are presented in Table S5 in the online supplement. Gender differences of marginal effects of unemployment by share of female workers for applications who match job requirements are presented in Figure S1. Interestingly, for applicants who match the skill requirements, gender differences seem to be mostly due to the variation of men's unemployment effect across the share of female workers in an occupational field (see Figure S2). Thus, these results show asymmetrical patterns and support mostly Hypothesis 2a. For unemployed women who meet the skill requirements, sex composition does not seem to matter.

Second, there is evidence suggesting that the negative unemployment effect on hiring outcomes increase with the duration of the unemployment spell (Kroft, Lange and Notowidigdo, 2013; Nüß, 2018). We refrained from testing gender-specific effects of unemployment duration, as there is no clear theoretical basis for expecting that gendered unemployment effects related to occupational sex composition would be heterogeneous with respect to unemployment duration. Methodologically, the design of the vignettes makes it challenging to disentangle the effects of timing and duration of the unemployment spell. Moreover, the design only differentiates between 10 and 20 months of unemployment which further limits our ability to test the effect of duration. Nevertheless, we performed additional analyses replacing the unemployment dummy with a categorical variable differentiating between 0, 10 and 20 months of unemployment (Table S6 in online supplement). We found that this did not result in substantial differences in our conclusions.

European Societies
https://doi.org/10.1162/euso_a_00040

Furthermore, although country differences were not the focus of our study, we tested whether they drive our results. The four countries in our data – differing in socio-cultural and institutional contexts, such as gender ideology and labor market conditions – may offer different opportunity structures for discrimination (Grunow, Begall and Buchler, 2018; Hvinden, Hyggen, *et al.*, 2019). While Birkelund et al. (2022) found some evidence that gender discrimination might be less pronounced in Norway (a more gender egalitarian country), overall, country differences were not significant. To assess whether certain countries drive gendered unemployment effects in our study, we interacted the country dummies with applicants' gender, unemployment experience, and share of female workers in Model 2. Table S7 in the online supplement presents the findings of these analyses. None of the interaction terms was statistically significant, suggesting that country differences do not affect our results.[8]

Discussion and Conclusion

This study extends prior supply-side studies on the role of occupational sex segregation for gender-specific unemployment rates, by applying a demand-side perspective. Using data from a multi-country FSE, we explored recruiters' hiring intentions toward men and women with unemployment experience in varying sex-segregated occupational fields. We measured the share of female workers in each occupational field to indicate whether an occupation was male- or female-typed. We combined theories on gender discrimination in sex-segregated labor markets with the literature on gender-specific unemployment effects to derive theoretical expectations on how gender and unemployment intersect. We expected that, overall, unemployment might lead to lower hiring intentions for men than women. Two competing expectations were derived for the role of occupational sex composition. One perspective, aligning with the concept of double disadvantage, anticipated greater disadvantage for men in female-dominated occupations (and vice versa for women). Conversely, following the notion of 'muted congruence,' we predicted that unemployment may have a lesser impact on men than women in female-dominated occupations (and vice versa).

We did not find an overall effect of applicants' gender on recruiters' hiring intentions, but unemployment emerged as a significant characteristic, in line with prior research. Contrary to our expectations (Hypothesis 1), we did not find gender differences in the overall effect of

[8] We also estimated separate models by country (see Table S8 in the online supplement). While these additional models enable comparisons between countries, they should not be regarded as country-specific versions of Model 2 due to the differing assumptions in their specifications, which involve confounding factors related to the country- and occupation-specific share of women.

European Societies
https://doi.org/10.1162/euso_a_00040

unemployment on recruiters' hiring intentions. Although the results pointed in the expected direction (i.e., more negative effects for men), they were not statistically significant and relatively small. These results are similar to Eriksson and Rooth's (2014) Swedish case study, but contradict other studies that found statistically significant differences (Baert et al. 2016; Pedulla 2016). Part of these differences may be due to the different study contexts. The results could suggest that recruiters apply social work norms similarly to women and men in the context of unemployment, but apply different evaluation standards in the context of other forms of non-standard employment patterns, such as part-time employment (Pedulla, 2016).

However, we found evidence that the share of female workers in an occupational field moderates gender differences in unemployment effects on hiring intentions. We observed gender differences in the effect of unemployment to the disadvantage of men, as the share of female workers increased, and to the disadvantage of women as the share of female workers decreased – albeit slightly less pronounced. The results are mostly in line with an 'amplified congruence effect' in that applying for a gender-atypical job may increase negative effects of unemployment (Hypotheses 2a/b). Accordingly, they contradict Hypotheses 3a/b, which expected muted congruence. The observed gender differences were due to variation in both gender's unemployment effects across occupational fields. Although the reasons for negative unemployment effects may be different for men and women, as discussed, the overall patterns were rather symmetrical across gender and occupational fields. Focusing on applicants who meet the skill requirements regarding education and work experience, gender differences in unemployment effects were slightly more pronounced. This resulted from the variation in men's unemployment effect, potentially indicating that masculinity norms may be more rigid than femininity norms (Manzi, 2019), shaping perceptions of men's unemployment differently across occupational fields, while for women, qualifications might be more relevant. Thus, when focusing on applicants who meet skill requirements, we only find support for Hypothesis 2a pertaining to men. These results align with findings from Birkelund et al. (2022), which suggest that gender-atypical applications may be more detrimental for men. Despite no overall effect of gender was found, our study extends these findings by focusing on the role of unemployment in shaping gender-specific disadvantages when applying to gender-atypical occupations. Unfortunately, testing different mechanisms explaining these results was not possible with our data, not least due to the low number of occupational fields included.

Our findings complement Hägglund and Bächmann's (2017, 40) results, who used German panel data and found that men in male-dominated occupations leave unemployment faster than men in female-dominated occupations. The authors attributed these patterns to

European Societies
https://doi.org/10.1162/euso_a_00040

occupational characteristics inherent to male-dominated occupations (e.g., in terms of labor supply). Our results suggest that recruiters' discriminatory hiring intentions may help explain why men in female-dominated occupations have lower transition rates into employment. In contrast to Hägglund and Bächmann's (2017) study, occupational sex composition also mattered for women' re-employment chances, at least when applicant-vacancy-fit is not considered.

Our study has some limitations. First, the design of the vignettes may have introduced bias in the interpretation of applicants' characteristics. Specifically, as all vignettes showed five years of labor market participation, applicants who have been continuously employed exhibited more work experience than those with unemployment spells. This makes it difficult to distinguish between mechanisms of skill deterioration and negative stereotypes about unemployed workers. However, as both mechanisms result in applicants' low expected competence, it did not impact our ability to test gender differences in the effect of unemployment on hiring intentions (see also, Pedulla, 2018, 1484). In addition, because the (un)employment phases displayed in the vignettes were highlighted in our data's experimental design (Figure 1), the recruiters' attention might have been drawn to these characteristics and away from the applicants' gender. This might imply that we have underestimated the effect of the applicant's gender on recruiters' hiring intentions.

Second, our analysis did not include an explicit measure of stereotypes because the data did not provide such information. Surveying the recruiters in the present study about their gender stereotypes and stereotypes associated with unemployment would have provided valuable information on how these stereotypes combine to shape hiring decisions. Instead, we used the share of female workers as a proxy for whether an occupation was stereotypically female or male, as prior research suggested that sex composition was a strong indicator of whether an occupational field was gender-typed (Cejka and Eagly, 1999). A similar approach was adopted by previous studies (Bursell, 2014; Kübler, Schmid and Stüber, 2018; Di Stasio and Larsen, 2020). Regarding our estimates of the share of female workers, however, it is important to acknowledge the potential overestimation or underestimation of the share of women at the occupational level in the finance and catering sectors due to variation in the share of female workers between occupations within these sectors in our data (see Table S3 in the online supplement). Nonetheless, it is reasonable to assume that the classification of the healthcare, IT, and mechanics sectors as female- and male-dominated, respectively, is accurate, as all occupational groups within these sectors were either strongly female- or male-dominated. As discussed, we decided to include the gender-balanced occupational fields in our analysis,

European Societies
https://doi.org/10.1162/euso_a_00040

given the uncertainty of the threshold at which gender becomes salient, although our selected threshold aligns with prior research.

A related challenge stemming from the lack of explicit stereotypes is the inability to disentangle occupational stereotypes from other occupational characteristics associated with the sex composition of occupations. With only five occupational fields, testing the impact of other occupational characteristics empirically is challenging. A potential confounding factor that may be relevant to our analysis is the variation in labor shortages across different occupations (and countries). Some studies find that unemployment is particularly stigmatizing when unemployment rates are low (Nüß, 2018; Sacchi and Samuel, 2024). At the same time, there is also evidence of lower levels of discrimination under such conditions (Baert *et al.*, 2015; Arceo and Campos-Vázquez, 2016). However, if labor shortages were a significant factor, we would expect the reduced stigmatization of unemployment to apply similarly to both men and women within the same occupation. Thus, while labor shortages might influence the overall effects of gender and unemployment, they should not affect our findings on gendered unemployment effects.

Finally, the external validity of our results is limited. Our results cannot be generalized to applicants who do not exhibit the characteristics manipulated or held constant in the experiment (e.g., applicants with migration backgrounds) or to other occupational sectors (and countries). For instance, prior studies suggest that unemployment may intersect with other status characteristics such as ethnicity or education, during the hiring process (Birkelund, Heggebø and Rogstad, 2017; Pedulla, 2018; Shi and Di Stasio, 2021). Moreover, our sample included more male-dominated than female-dominated occupations. However, certain aspects of the experimental design likely increased external validity. By using real vacancies in the vignette experiment, recruiters were asked about a real hiring problem. While we cannot draw conclusions about actual behaviors, an inherent limitation of survey experiments, this approach likely enhanced the 'perceived realism' of the vignette task (Auspurg and Hinz, 2015), leading to more valid answers than studies using hypothetical descriptions of vacancies (see Gutfleisch, Samuel and Sacchi, 2021). Although the vignettes presented simplified versions of real CVs, real and common job and educational titles were provided in the vignettes.

Nevertheless, we cannot rule out the possibility of social desirability affecting our results. Regarding gender, social desirability effects may lead recruiters in male-dominated occupations to favor female applicants or vice versa. We do not believe that overcompensation is a significant issue in our study, at least when considering unemployment, as we find no advantage for men in female-dominated occupations; while women's disadvantage in male-

European Societies
https://doi.org/10.1162/euso_a_00040

dominated occupations is comparatively smaller, men are still preferred over women in these occupations in our study.

Despite these limitations, our study provided evidence that recruiters' hiring intentions may contribute to gender-specific unemployment rates in sex-segregated labor markets. By exploring how recruiters evaluate men and women with unemployment experience across sex-segregated occupational fields, we bridged two strands of research. The first strand examines how occupational sex segregation shapes hiring decisions yet has neglected the transition from unemployment to employment. The second investigates gender-specific unemployment effects without accounting for the role of occupational sex composition. By integrating these perspectives, our study aimed to enhance our understanding of the conditions under which recruiters' hiring decisions may perpetuate gender inequalities in the labor market, particularly related to re-employment chances after unemployment. Our results show that the occupational sex composition matters for how recruiters evaluate unemployment, predominantly affecting men. As an implication, men seeking to re-enter a gender-atypical job might experience longer periods of unemployment compared to women in similar circumstances. Moreover, our study contributes more broadly to intersectional research on gender inequality in the labor market (Browne and Misra, 2003; Rivera, 2020) by examining how and when gender intersects with other status characteristics, such as unemployment, in shaping hiring decisions.

To extend this study, future research should explore these issues across a broader set of occupational fields. A large and heterogeneous sample of occupations would be necessary to rigorously test the impact of the share of female workers on the gendered effects of unemployment and to separate occupational stereotypes from other occupational characteristics. Moreover, future studies could investigate how recruiters evaluate different forms of unemployment among men and women. Given the relevance of unemployment duration in hiring decisions (Eriksson and Rooth, 2014), it would be valuable to investigate whether gender differences in unemployment effects converge as unemployment duration increases within female-dominated occupations. More broadly, future studies should examine how job, company, and occupational characteristics may moderate hiring decisions (Bertogg *et al.*, 2020). Developing a more nuanced understanding of the conditions under which discriminatory hiring decisions occur will improve our understanding of the role recruiters play in (re-)producing gender inequalities in the labor market.

Acknowledgements

European Societies
https://doi.org/10.1162/euso_a_00040

Special thanks to Stefan Sacchi for general comments and for sharing his work on conceptualizing and coding applicant-vacancy-fit. We further thank Ariane Bertogg, Vernon Gayle, Christian Imdorf, Shireen Kanji, and Patrick Nüß for valuable feedback on previous versions of this study. The authors are responsible for the decisions taken. An earlier version of this study, based on different data and focus, was part of Tamara Gutfleisch's dissertation.

Declaration of interest

There authors report there are no competing interests to declare.

Data Availability

The data underlying this study was collected within the horizon 2020 project NEGOTIATE (https://negotiate-research.no/). The data is available as scientific use file. Researchers can apply for data access at the Norwegian centre for research data (NSD). We used the following version: https://doi.org/10.18712/NSD-NSD2644-V3. This study further used data from Eurostat, European Union Labor Force Survey, released September 25, 2020 (DOI: 10.2907/LFS1983-2019). The responsibility for all conclusions drawn from the data lies entirely with the authors. A replication package is available at: https://osf.io/gcuh7/ (DOI: 10.17605/OSF.IO/GCUH7).

Ethics

A detailed statement regarding ethics can be found in the data documentation to the scientific use file cited in this manuscript (NEGOTIATE 2020, p.9). The data adheres to the "Data Protection Directive" (Directive 95/46/EC on the protection of individuals regarding processing of personal data and on the free movement of such data). The project also complies with the Charter of Fundamental Rights of the European Union and the Commission Recommendation of 11 March 2005 on the European Charter for Researchers and on a Code of Conduct for Recruitment of Researchers. Participants were informed about data protection and confidentiality and gave their informed consent to participate in the study.

References

Acker, J. (1990) 'Hierarchies, jobs, bodies: A theory of gendered organizations', *Gender & Society*, 4(2): 139–158.

European Societies
https://doi.org/10.1162/euso_a_00040

Arceo, E. and Campos-Vázquez, R.M. (2016) *Do labour market conditions affect the extent of gender discrimination?* WIDER Working Paper, No. 2016/80.

Atkinson, J., Giles, L. and Meager, N. (1996) *Employers, recruitment and the unemployed*. Brighton: IES Report 325.

Auspurg, K. and Hinz, T. (2015) *Factorial Survey Experiments*. Los Angeles: Sage.

Bächmann, A.-C. (2022) 'Are female-dominated occupations a secure option? Occupational gender segregation, accompanied occupational characteristics, and the risk of becoming unemployed', *European Sociological Review* [Preprint]. Available at: https://doi.org/https://doi.org/10.1093/esr/jcac068.

Bächmann, A.-C. and Gatermann, D. (2017) 'The duration of family-related employment interruptions – the role of occupational characteristics', *Journal for Labour Market Research*, 50(1): 143–160. Available at: https://doi.org/10.1007/s12651-017-0226-4.

Baert, S. *et al.* (2015) 'Is there less discrimination in occupations where recruitment is difficult?', *Industrial and Labor Relations Review*, 68(3): 467–500.

Baert, S. *et al.* (2016) 'First depressed, then discriminated against?', *Social Science & Medicine*, 170: 247–254.

Baert, S. (2018) 'Hiring discrimination: An overview of (almost) all correspondence experiments since 2005', in S.M. Gaddis (ed.) *Audit Studies: Behind the Scenes with Theory, Method, and Nuance*. New York: Springer, 63–77.

Becker, G.S. (1964) *Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education*. Chicago: University of Chicago Press.

Van Belle, E. *et al.* (2018) 'Why are employers put off by long spells of unemployment?', *European Sociological Review*, 34(6): 1–17.

van den Berg, G.J. and van Ours, J.C. (1996) 'Unemployment dynamics and duration dependence', *Journal of Labor Economics*, 14(1): 100–125.

Bertogg, A. *et al.* (2020) 'Gender Discrimination in the Hiring for Skilled Professionals in Two Male-Dominated Occupational Fields – A Factorial Survey Experiment with Real-World Vacancies and Recruiters in Four European Countries', *Kölner Zeitschrift für Soziologie und Sozialpsychologie*, 72: 261–289.

Bertrand, M. and Duflo, E. (2017) 'Field experiments on discrimination', in A.V. Banerjee and E. Duflo (eds) *Handbook of Economic Field Experiments*. Amsterdam: North-Holland, 309–393.

Bills, D.B., Di Stasio, V. and Gërxhani, K. (2017) 'The demand side of hiring: Employers in the labor market', *Annual Review of Sociology*, 43: 291–310.

European Societies
https://doi.org/10.1162/euso_a_00040

Birkelund, G.E. *et al.* (2022) 'Gender Discrimination in Hiring: Evidence from a Cross-National Harmonized Field Experiment', *European Sociological Review*, 38(3): 337–354. Available at: https://doi.org/10.1093/esr/jcab043.

Birkelund, G.E., Heggebø, K. and Rogstad, J. (2017) 'Additive or multiplicative disadvantage? The scarring effects of unemployment for ethnic minorities', *European Sociological Review*, 33(1): 17–19.

Birkelund, G.E., Janz, A. and Larsen, E.N. (2019) *Do males experience hiring discrimination in female-dominated occupations? An overview of field experiments since 1996*. GEMM working paper. Available at: https://gemm2020.eu/wp-content/uploads/2018/12/Gender-Discrimination-a-summary-1.pdf.

Bonoli, G. (2014) 'Employers' attitudes towards long-term unemployed people and the role of activation in Switzerland', *International Journal of Social Welfare*, 23(4): 421–430.

Brand, J.E. (2015) 'The far-reaching impact of job loss and unemployment', *Annual Review of Sociology*, 41: 1–17.

Browne, I. and Misra, J. (2003) 'The intersection of gender and race in the labor market', *Annual Review of Sociology*, 29(1): 487–513.

Bursell, M. (2014) 'The multiple burdens of foreign-named men - Evidence from a field experiment on gendered ethnic hiring discrimination in Sweden', *European Sociological Review*, 30(3): 399–409. Available at: https://doi.org/10.1093/esr/jcu047.

Cejka, M.A. and Eagly, A.H. (1999) 'Gender-stereotypic images of occupations correspond to the sex segregation of employment', *Personality and Social Psychology Bulletin*, 25(4): 413–423.

Charles, M. and Grusky, D.B. (2004) *Occupational Ghettos: The World-Wide Segregation of Women*. Stanford: Stanford University Press.

Choo, H.Y. and Ferree, M.M. (2010) 'Practicing intersectionality in sociological research: A critical analysis of inclusions, interactions, and institutions in the study of inequalities', *Sociological Theory*, 28(2): 129–149.

Clark, A.E. and Lepinteur, A. (2019) 'The causes and consequences of early-adult unemployment: Evidence from cohort data', *Journal of Economic Behavior and Organization*, 166: 107–124. Available at: https://doi.org/10.1016/j.jebo.2019.08.020.

Cockx, B. and Picchio, M. (2013) 'Scarring effects of remaining unemployed for long-term unemployed school-leavers', *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 176(4): 951–980.

Correll, S.J., Benard, S. and Paik, I. (2007) 'Getting a Job: Is There a Motherhood Penalty?',

European Societies
https://doi.org/10.1162/euso_a_00040

American Journal of Sociology, 112(5): 1297–1339.

Crenshaw, K. (1989) 'Demarginalizing the intersection of race and sex: A black feminist critique of antidiscrimination doctrine, feminist theory and antiracist politics', *University of Chicago Legal Forum*, 1(8). Available at: https://chicagounbound.uchicago.edu/uclf/vol1989/iss1/8.

Davison, H.K. and Burke, M.J. (2000) 'Sex discrimination in simulated employment contexts: A meta-analytic investigation', *Journal of Vocational Behavior*, 56(2): 225–248.

Devins, D. and Hogarth, T. (2005) 'Employing the unemployed: Some case study evidence on the role and practice of employers', *Urban Studies*, 42(2): 245–256. Available at: https://doi.org/10.1080/0042098042000316128.

Dülmer, H. (2007) 'Experimental plans in factorial surveys: Random or quota design?', *Sociological Methods & Research*, 35(3): 382–409.

Dülmer, H. (2016) 'The factorial survey: Design selection and its impact on reliability and internal validity', *Sociological Methods and Research*, 45(2): 304–347. Available at: https://doi.org/10.1177/0049124115582269.

Eagly, A.H. and Diekman, A. (2005) 'What is the problem? Prejudice as an attitude-in-context', in J.F. Dovidio, P. Glick, and L.A. Rudmann (eds) *On the nature of prejudice: Fifty years after Allport*. Malden: Blackwell Publishing, 19–35.

Eagly, A.H. and Karau, S.J. (2002) 'Role congruity theory of prejudice toward female leaders.', *Psychological Review*, 109(3): 573–598.

Eagly, A.H. and Koenig, A.M. (2008) 'Gender Prejudice: On the Risks of Occupying Incongruent Roles', in E. Borgida and S.T. Fiske (eds) *Beyond Common Sense: Psychological Science in the Courtroom*. Malden: Blackwell Publishing, 63–81.

Ellemers, N. (2018) 'Gender Stereotypes', *Gender Stereotypes*, 69: 19.1-19.24. Available at: https://doi.org/10.4135/9781483384269.n251.

England, P. (1992) *Comparable worth: Theories and evidence*. New York: Routledge.

England, P. (2010) 'The gender Rrevolution. Uneven and stalled', *Gender and Society*, 24(2): 149–166.

Eriksson, S. and Rooth, D.O. (2014) 'Do employers use unemployment as a sorting criterion when hiring? Evidence from a field experiment', *American Economic Review*, 104(3): 1014–1039.

Farber, H.S. *et al.* (2019) 'Whom do employers want? The role of recent employment and unemployment status and age', *Journal of Labor Economics*, 37(2): 323–349.

Fossati, F., Liechti, F. and Auer, D. (2019) 'Can signaling assimilation mitigate hiring

European Societies
https://doi.org/10.1162/euso_a_00040

discrimination? Evidence from a survey experiment', *Research in Social Stratification and Mobility* [Preprint]. Available at: https://doi.org/10.1016/j.rssm.2019.100462.

Galos, D.R. and Coppock, A. (2023) 'Gender composition predicts gender bias: A meta-reanalysis of hiring discrimination audit experiment', *Science Advances*, 9(18): 1–12. Available at: https://doi.org/10.1126/sciadv.ade7979.

Gangl, M. (2006) 'Scar effects of unemployment: An assessment of institutional complementarities', *American Sociological Review*, 71(6): 986–1013.

Ghayad, R. (2013) *The Jobless Trap*. Northeastern University. Available at: http://www.lexissecuritiesmosaic.com/gateway/FEDRES/SPEECHES/ugd_576e9a_f6cf3b6661e44621ad26547112f66691.pdf.

Gonalons-Pons, P. and Gangl, M. (2021) 'Marriage and masculinity: Male-breadwinner culture, unemployment, and separation risk in 29 countries', *American Sociological Review*, 86(3): 465–502. Available at: https://doi.org/10.1177/00031224211012442.

Grunow, D., Begall, K. and Buchler, S. (2018) 'Gender ideologies in Europe: A multidimensional framework', *Journal of Marriage and Family*, 80(1): 42–60.

Gutfleisch, T., Samuel, R. and Sacchi, S. (2021) 'The application of factorial surveys to study recruiters' hiring intentions: comparing designs based on hypothetical and real vacancies', *Quality and Quantity*, 55: 775–804.

Hägglund, A.E. and Bächmann, A.-C. (2017) 'Fast lane or down the drain? Does the occupation held prior to unemployment shape the transition back to work?', *Research in Social Stratification and Mobility*, 49: 32–46.

Heilman, M.E. (1983) 'Sex bias in work settings: The lack of fit model', *Research in Organizational Behavior*, 5: 269–298.

Heilman, M.E. (2001) 'Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder', *Journal of Social Issues*, 57(4): 657–674.

Heilman, M.E. (2012) 'Gender stereotypes and workplace bias', *Research in Organizational Behavior*, 32: 113–135.

Heisig, J.P. and Schaeffer, M. (2019) 'Why you should always include a random slope for the lower-level variable involved in a cross-level interaction', *European Sociological Review*, 35(2): 258–279. Available at: https://doi.org/10.1093/esr/jcy053.

Helbling, L.A. and Sacchi, S. (2014) 'Scarring effects of early unemployment among young workers with vocational credentials in Switzerland', *Empirical Research in Vocational Education and Training*, 6: 1–22.

Heyne, S. and Voßemer, J. (2022) 'Gender, unemployment, and subjective well-being: Why do

European Societies
https://doi.org/10.1162/euso_a_00040

women suffer less from unemployment than men?', *European Sociological Review*, 1–16. Available at: https://doi.org/10.1093/esr/jcac030.

Hills, S.M. (1990) 'Race and sex differences in the effects of early unemployment on wages', *The Review of Black Political Economy*, 18(4): 13–36.

Hox, J.J. (2010) *Multilevel Analysis: Techniques and Applications*. 2nd edn. New York: Routledge.

Hvinden, B., O'Reilly, J., *et al.* (2019) *Negotiating Early Job Insecurity. Well-being, Scarring and Resilience of European Youth*. Cheltenham: Edward Elgar Publishing.

Hvinden, B., Hyggen, C., *et al.* (2019) *Youth Unemployment and Job Insecurity in Europe. Problems, Risk Factors and Policies*. Cheltenham: Edward Elgar Publishing.

Hyggen, C. *et al.* (2016) 'Understanding unemployment scars: A vignette experiment of employers' decisions in Bulgaria, Greece, Norway and Switzerland', *NEGOTIATE. Working Paper No. 7.2* [Preprint].

Hyggen, C. *et al.* (2022) *NEGOTIATE Employer Survey. Scientific Use File, 2020 [Data set]*. Sikt - Norwegian Agency for Shared Services in Education and Research. https://doi.org/10.18712/NSD-NSD2644-V4.

Imdorf, C. *et al.* (2017) 'Explaining employers' hiring decisions: A comparative study of employers' risk assessment', *NEGOTIATE. Working Paper No. 7.3* [Preprint].

Jacobs, J.A. (1989) *Revolving doors: Sex segregation and women's careers*. Palo Alto: Stanford University Press.

Karren, R. and Sherman, K. (2012) 'Layoffs and unemployment discrimination: a new stigma', *Journal of Managerial Psychology*, 27(8): 848–863. Available at: https://doi.org/10.1108/02683941211280193.

Killewald, A. (2016) 'Money, work, and marital stability: Assessing change in the gendered determinants of divorce', *American Sociological Review*, 81(4): 696–719. Available at: https://doi.org/10.1177/0003122416655340.

King, D.K. (1988) 'Multiple jeopardy, multiple consciousness: The context of a black Feminist ideology', *Signs*, 14(1): 42–72. Available at: https://doi.org/10.4324/9780203705841-21.

Kite, M.E., Deaux, K. and Haines, E.L. (2008) 'Gender Stereotypes', in F.L. Denmark and M.A. Paludi (eds) *Psychology of Women: A Handbook of Issues and Theories*. Westport: Praeger, 205–236.

Kleinert, C. *et al.* (2023) 'Occupational Sex Segregation and its Consequences for the (Re-)Production of Gender Inequalities in the German Labour Market', *Methodology of*

European Societies
https://doi.org/10.1162/euso_a_00040

Educational Measurement and Assessment, 295–317. Available at: https://doi.org/10.1007/978-3-031-27007-9_13.

Koch, A.J., D'Mello, S.D. and Sackett, P.R. (2015) 'A meta-analysis of gender stereotypes and bias in experimental simulations of employment decision making', *Journal of Applied Psychology*, 100(1): 128–161.

Kroft, K., Lange, F. and Notowidigdo, M.J. (2013) 'Duration dependence and labor market conditions: Evidence from a field experiment', *The Quarterly Journal of Economics*, 128(3): 1123–1167.

Kübler, D., Schmid, J. and Stüber, R. (2018) 'Gender discrimination in hiring across occupations: A nationally-representative vignette study', *Labour Economics*, 55: 215–229.

Leuze, K. and Strauß, S. (2014) 'Female-typical Subjects and their Effect on Wage Inequalities among Higher Education Graduates in Germany', *European Societies*, 16(2): 275–298. Available at: https://doi.org/10.1080/14616696.2012.748929.

Levanon, A. and Grusky, D.B. (2016) 'The Persistence of Extreme Gender Segregation in the Twenty-first Century 1', 122(2): 573–619.

Luijkx, R. and Wolbers, M.H.J. (2009) 'The effects of non-employment in early work-life on subsequent employment chances of individuals in the Netherlands', *European Sociological Review*, 25(6): 647–660.

Manzi, F. (2019) 'Are the processes underlying discrimination the same for women and men? A critical review of congruity models of gender discrimination', *Frontiers in Psychology*, 10: 1–16. Available at: https://doi.org/10.3389/fpsyg.2019.00469.

Mavromaras, K., Sloane, P. and Wei, Z. (2015) 'The scarring effects of unemployment, low pay and skills under-utilization in Australia compared', *Applied Economics*, 47(23): 2413–2429.

McCall, L. (2005) 'The complexity of intersectionality', *Signs*, 30(3): 1771–1800.

McDonald, P. (2019) 'How factorial survey analysis improves our understanding of employer preferences', *Schweizerische Zeitschrift für Soziologie*, 45(2): 237–260.

Michniewicz, K.S., Vandello, J.A. and Bosson, J.K. (2014) 'Men's (mis)perceptions of the gender threatening consequences of unemployment', *Sex Roles*, 70(3–4): 88–97. Available at: https://doi.org/10.1007/s11199-013-0339-3.

Mooi-Reci, I. and Ganzeboom, H.B. (2015) 'Unemployment scarring by gender: Human capital depreciation or stigmatization? Longitudinal evidence from the Netherlands, 1980-2000', *Social Science Research*, 52: 642–658.

European Societies
https://doi.org/10.1162/euso_a_00040

Murphy, E. and Oesch, D. (2016) 'The feminization of occupations and change in wages: A panel analysis of Britain, Germany, and Switzerland', *Social Forces*, 94(3): 1221–1255. Available at: https://doi.org/10.1093/sf/sov099.

NEGOTIATE (2020) *NEGOTIATE Employer Survey. Scientific Use File. Data Documentation (2nd version).* Oslo: OsloMet.

Neumark, D. (2018) 'Experimental research on labor market discrimination', *Journal of Economic Literature*, 56(3): 799–866.

Nunley, J.M. *et al.* (2017) 'The effects of unemployment and underemployment on employment opportunities: Results from a correspondence audit of the labor market for college graduates', *ILR Review*, 70(3): 642–670.

Nüß, P. (2018) *Duration dependence as an unemployment stigma: Evidence from a field experiment in Germany*. Economics Working Paper 2018-06, Kiel University.

Oberholzer-Gee, F. (2008) 'Nonemployment stigma as rational herding: A field experiment', *Journal of Economic Behavior and Organization*, 65(1): 30–40.

Pedulla, D.S. (2016) 'Penalized or protected? Gender and the consequences of nonstandard and mismatched employment histories', *American Sociological Review*, 81(2): 262–289.

Pedulla, D.S. (2018) 'How race and unemployment shape labor market opportunities: Additive, amplified, or muted effects?', *Social Forces*, 96: 1477–1506.

Petersen, T. and Saporta, I. (2004) 'The opportunity structure for discrimination', *American Journal of Sociology*, 109(4): 852–901.

Purdie-Vaughns, V. and Eibach, R.P. (2008) 'Intersectional invisibility: The distinctive advantages and disadvantages of multiple subordinate-group identities', *Sex Roles*, 59(5–6): 377–391. Available at: https://doi.org/10.1007/s11199-008-9424-4.

Rao, A.H. (2020) *Crunch Time: How Married Couples Confront Unemployment*. Berkeley: University of California Press.

Reskin, B.F. (1991) 'Labor Markets as Queues: A Structural Approach to Changing Occupational Sex Composition', in J. Huber (ed.) *Macro-micro linkages in sociology*. Newbury Park: Sage Publications, 170–192.

Riach, P.A. and Rich, J. (2006) 'An experimental investigation of sexual discrimination in hiring in the English labor market', *Advances in Economic Analysis & Policy*, 5(2): 1–20.

Ridgeway, C.L. (1997) 'Interaction and the conservation of gender inequality: Considering employment', *American Sociological Review*, 62(2): 218–235.

Ridgeway, C.L. and Correll, S.J. (2004) 'Unpacking the gender system: A theoretical

European Societies
https://doi.org/10.1162/euso_a_00040

perspective on gender beliefs and social relations', *Gender & Society*, 18(4): 510–531.

Ridgeway, C.L. and Kricheli-Katz, T. (2013) 'Intersecting Cultural Beliefs in Social Relations: Gender, Race, and Class Binds and Freedoms', *Gender & Society*, 27(3): 294–318.

Rivera, L.A. (2020) 'Employer decision making', *Annual Review of Sociology*, 46: 215–232. Available at: https://doi.org/10.1146/annurev-soc-121919-054633.

Sacchi, S., Kriesi, I. and Buchmann, M. (2016) 'Occupational mobility chains and the role of job opportunities for upward, lateral and downward mobility in Switzerland', *Research in Social Stratification and Mobility*, 44: 10–21.

Sacchi, S. and Samuel, R. (2024) 'Variation in unemployment scarring across labor markets. A comparative factorial survey experiment using real vacancies', *Research in Social Stratification and Mobility*, 93: 100959. Available at: https://doi.org/10.1016/j.rssm.2024.100959.

Sauer, C. *et al.* (2011) 'The application of factorial surveys in general population samples: The effects of respondent age and education on response times and response consistency', *Survey Research Methods*, 5(3): 89–102.

Scarborough, W.J., Sin, R. and Risman, B. (2019) 'Attitudes and the stalled gender revolution: Egalitarianism, traditionalism, and ambivalence from 1977 through 2016', *Gender & Society*, 33(2): 173–200. Available at: https://doi.org/10.1177/0891243218809604.

Shi, L.P. *et al.* (2018) 'How unemployment scarring affects skilled young workers: evidence from a factorial survey of Swiss recruiters', *Journal for Labour Market Research*, 52(1): 7.

Shi, L.P., Imdorf, C. and Samuel, R. (2015) *Studying employers' risk assessment and the role of institutions: An experimental design*.

Shi, L.P. and Di Stasio, V. (2021) 'Finding a job after unemployment—education as a moderator of unemployment scarring in Norway and German-speaking Switzerland', *Socio-Economic Review*, 1–25. Available at: https://doi.org/10.1093/ser/mwaa056.

Spence, M. (1973) 'Job market signaling', *The Quarterly Journal of Economics*, 87(3): 355–374.

Di Stasio, V. (2017) 'Who is ahead in the labor queue? Institutions' and employers' perspective on overeducation, undereducation, and horizontal mismatches', *Sociology of Education*, 90(2): 109–126.

Di Stasio, V. and Larsen, E.N. (2020) 'The racialized and gendered workplace: Applying an intersectional lens to a field experiment on hiring discrimination in five European labor markets', *Social Psychology Quarterly* [Preprint]. Available at:

European Societies
https://doi.org/10.1162/euso_a_00040

https://doi.org/10.1177/0190272520902994.

Di Stasio, V. and Van De Werfhorst, H.G. (2016) 'Why does education matter to employers in different institutional contexts? A vignette study in England and the Netherlands', *Social Forces*, 95(1): 77–106.

Torre, M. (2018) 'Stopgappers? The Occupational Trajectories of Men in Female-Dominated Occupations', *Work and Occupations*, 45(3): 283–312. Available at: https://doi.org/10.1177/0730888418780433.

Torre, M. and Jacobs, J.A. (2021) 'The Gender Mobility Paradox: Gender Segregation and Women's Mobility Across Gender-Type Boundaries, 1970–2018', *Gender & Society*, XX(X): 089124322110463. Available at: https://doi.org/10.1177/08912432211046328.

Voßemer, J. *et al.* (2018) 'The effect of an early-career involuntary job loss on later life health in Europe', *Advances in Life Course Research*, 35: 69–76. Available at: https://doi.org/10.1016/j.alcr.2018.01.001.

Weichselbaumer, D. (2004) 'Is it sex or personality? The impact of sex stereotypes on discrimination in applicant selection', *Eastern Economc Journal*, 30(2): 159–186.

Weisshaar, K. (2021) 'Employment lapses and subsequent hiring disadvantages: An experimental approach examining types of discrimination and mechanisms', *Socius*, 7: 1–23. Available at: https://doi.org/10.1177/23780231211019861.

Williams, R. (2012) 'Using the margins command to estimate and interpret adjusted predictions and marginal effects', *The Stata Journal*, 12(2): 308–331.

Yavorsky, J.E. (2019) 'Uneven patterns of inequality: An audit analysis of hiring-related practices by gendered and classed contexts', *Social Forces*, 98(2): 461–492.

Yavorsky, J.E. and Dill, J. (2020) 'Unemployment and men's entrance into female-dominated jobs', *Social Science Research*, 85: 102373. Available at: https://doi.org/10.1016/j.ssresearch.2019.102373.