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## ► To cite this version:

Vanessa Di Paola, Arnaud Dupray, Stéphanie Moullet. Does occupational gender composition affect women's chances of becoming managers? Evidence from France, Sweden, Switzerland and the UK. *International Journal of Sociology and Social Policy*, 2022, 10.1108/IJSSP-12-2021-0315 . hal-03730321

**HAL Id: hal-03730321**

**<https://hal.science/hal-03730321v1>**

Submitted on 6 Apr 2023

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# **Does occupational gender composition affect women's chances of becoming managers?**

## **Evidence from France, Sweden, Switzerland, and the UK**

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### Acknowledgements:

This article stems from a research project (Woman in Management) funded by the Agence Nationale de la Recherche (ANR) - Projet ANR-16-CE26-0010-01. The authors are grateful to Eurostat and OFS (Switzerland) for supplying data. The authors thank Nicky Le feuvre, Christian Imdorf and Thomas Couppié for helpful comments on earlier versions and conference participants to the IVth *ISA forum of Sociology*, Porto-Allegre, Brazil, February 2021.

Does occupational gender composition affect women's chances of becoming managers?

Evidence from France, Sweden, Switzerland and the UK

## **Abstract**

**Purpose:** We aim to explore the link between the gender composition of occupations and women's access to managerial positions in four societal contexts.

**Methodology:** Using EU-LFS data for 2015, we measure the relative gender equality performance of France, Sweden, Switzerland and the UK regarding women's access to managerial positions, defined as levels 1 and 2 of the 2008 ISCO classification coupled with the exercise of managerial responsibilities.

**Findings:** While gender-mixed working environments offer the largest number of managerial positions, they are also where women are least likely to reach such a position. Overall, except in Switzerland, women fare best in male-dominated occupations. Women do not appear to fare worse than men in female-dominated occupations, except in France.

**Originality:** The disparities between countries found here show that individual career advancement towards a managerial position may be driven by the social policies, gender ideology and institutions of the societal context. Examining how the societal dimensions involved in the poor performance of women in France and Switzerland are likely to differ sheds light on mechanisms behind the gender gap in management.

**Research implications:** Our findings question the relevance of policies aimed simply at reducing occupational gender segregation without providing safeguards against the deleterious effects that gender mixing may have on women's career advancement.

## **1. Introduction**

Women remain under-represented in managerial positions, particularly at higher levels of management. This is true both in the United States (Haveman and Beresford, 2012; Scarborough, 2017) and in Europe. In 2017, according to Eurostat, women held 36% of the managerial positions in the European Union, whereas they account for half of the labour force. Female under-representation in management applies to Sweden and Switzerland (Statistics Sweden, 2017; Catalyst 2019[1]), to the UK (Peng and She, 2020) and to France (Dupray and Epiphane, 2020).

More general labour market segregation, defined as the unequal distribution of men and women across occupations[2], may prevent women from entering these positions. Occupational gender segregation is considered a symptom of women's economic disadvantage (Cohen, 2013) and the European Commission urges member countries to tackle it as a way of reducing labour market gender inequality (A Union of Equality: Gender Equality Strategy 2020-2025). International comparative studies also show that national contexts affect the degree of vertical occupational gender segregation, i.e. the degree of reduction in the relative proportion of women as one moves up the occupational hierarchy. For instance, State promotion of equality between women and men in the labour market (Kmec and Skaggs, 2014) and the gender-equal division of social roles (Davis and Greenstein, 2009) help women move up into management. Yet while vertical occupational segregation is probably related to horizontal segregation, few studies appear to have investigated the link between the two[3].

Our aim here is therefore to identify links between the gender composition of occupations and women's employment in managerial positions. We focus on the wage-earning population aged 25 to 49 in four countries: France, the UK, Switzerland and Sweden. Focusing on the early stages of careers allows us to account for interactions between occupational careers and family formation. The countries were chosen to represent four distinct societal contexts.

Sweden exemplifies both the “earner-carer” family policy constellation of Korpi *et al.*, (2013) and the social-democratic welfare-state regime according to Esping-Andersen (1990). The UK is a liberal welfare-state regime with a formal commitment to gender equality in the labour market but little support for mothers' employment. The male breadwinner model persists in Switzerland under the dominance of “egalitarian familialism”[4] (Knight and Brinton, 2017), with employment of women only recommended if the household contains no pre-school children (Bornatici *et al.*, 2021). Finally, France has a hybrid regime where two normative models coexist: that of the accumulation of work and family roles and that of "free choice" between these two forms of social integration.

Defining managers as executive or professional positions with managerial duties, we use empirical analysis of European labour force surveys (EU-LFS 2015) to address three questions. First, which gender composition of occupations has the most favourable impact on women's chances of obtaining a managerial position? Second, how does the gender gap in access to such positions differ among the countries? Thirdly, how is women's disadvantage affected by whether occupations are male-dominated, female-dominated, or gender-mixed in the different countries[5]?

We contribute to the literature by considering a twofold level of comparison: between countries that differ in societal context and, within countries, between types of occupational gender composition. Our results show that female-dominated occupations in every country offer the fewest opportunities for access to managerial positions, but that, except in France, this situation is not more detrimental to women than to their male counterparts. A second important finding is that the managerial gender gap is highest in gender-mixed occupations, although these occupations offer the highest number of managerial job opportunities. Lastly, we find a greater managerial gender gap in contexts with a rather traditionalist division of gender roles,

like Switzerland, and in environments with persistent occupational gender segregation, like France.

Section 2 presents the theoretical background and our first working hypotheses. Given the institutional and labour market contexts of the four countries compared, complementary hypotheses are proposed. The data and methodology are described in section 3 and the results are presented in section 4. The main lessons learned from this analysis are discussed in the final section.

## **2. Women's access to managerial positions seen through competing theories**

Different theoretical approaches can help interpret women's access to managerial positions.

### ***2.1 Social roles and gender-based stereotypes***

Social gender relations are highlighted in theories based on how women's social roles or role expectations (Eagly, 1987; Ridgeway, 2001) create gender stereotypes, with their implications in terms of attributes and behaviours. The “think manager-think male” attitude remains strong among male managers in numerous countries (Schein, 2001, 2007). This anchored representation suggests a male closed-mindedness which may strongly discourage women from aspiring towards the managerial goal.

According to social role theory, the typical roles occupied by a member underlie group stereotypes. Women and men are believed to have qualities which predispose them to preferentially play different roles in society. A perceptual incongruity between gender roles and the leadership roles involved in occupying a managerial position can disadvantage women in two ways: they may be perceived in general less favourably than men and their behaviour in line with what is required from the job may be underestimated (Eagly and Karau, 2002). Women holding positions of hierarchical responsibility may become suspect both because they are deviating from their social role, notably in the family sphere, and because their leadership is assumed to be marred by the alleged attributes of their gender (attention, discretion, empathy,

etc.), qualities not traditionally associated with a position of authority (Braun *et al.*, 2017). As Heilman (2001, p. 667) notes, “The violation of the prescriptions inherent in gender stereotypes is likely to bias how they are evaluated and how their careers progress”. Acker’s theory of gendered organizations (Acker, 1990) provides additional support for the view that the world of work, including all human resources operations, functions in a falsely gender-neutral context.

Those theories therefore predict male domination in access to hierarchical positions, since stereotypes of behaviours traditionally associated with women reduce their legitimacy in taking on such positions. Conversely, gender-based stereotypes can be undermined by policies promoting gender equality.

## ***2.2 Culture and equal-opportunity legislation***

A society’s commitment to promoting equality of gender roles is likely to favourably influence women’s access to managerial positions in two ways. In societies fostering gender-role egalitarianism, both in the professional and in the family spheres (sharing of household chores and parenting tasks, supportive institutional arrangements such as collective day-care services, more balanced parental leave entitlements, etc.), the time constraint upon women's professional lives should be relaxed by increased sharing of the domestic and parenting work with men. Managerial positions, highly demanding in terms of time and mental focus, should therefore become more "bearable" and accessible than in societies characterised by a more traditional gender-based division of roles.

Moreover, promoting more gender-egalitarian standards in the labour market could create a social climate that delegitimizes employers' negative perceptions of women applying for managerial positions, making the ‘think manager-think male’ attitude outdated. Via a trickle-down effect, favourable policies at the level of the society could ultimately influence decision-making mechanisms at the level of human resources departments. Under these conditions, more egalitarian standards might lessen the use of gender stereotypes by allowing

the competencies of women and men to be assessed on the same basis, with no preconceived ideas.

### ***2.3 Gender-specific preferences***

Economic approaches postulate the influence of individual preferences, stressing women's and men's differing expectations regarding employment (Lordan and Pischke, 2016). Positions of power are more highly valued by men than by women, whereas working conditions and relational aspects are more important to women (Fortin 2008). These preferences lead women to apply for jobs that allow them to achieve a balance between work and parental and domestic chores (Barbulescu and Bidwel, 2013), for which they remain primarily responsible in most countries (Treas and Tai, 2016). This may mean avoiding managerial positions, often characterised by a fragmentation of time, time pressure related to tight deadlines and a heavy mental workload (Boisard *et al.*, 2002), to the detriment of the work-life balance (Rutherford, 2001). Thus, women appear to face a conflict between wanting to preserve work-life balance and aspiring to become managers. However, the degree of conflict will vary depending on the childcare facilities provided to help achieve work-life balance.

### ***2.4 Macro-institutional contexts and differences between countries***

To account for the different institutional settings and family policies of the countries studied, we first refer to the Esping-Andersen' typology of "Welfare-State Regimes" (1990, 1999). Although frequently criticised (e.g. Arts and Gelissen, 2002; Ferragina and Seeleib-Kaiser, 2011), this typology remains a useful analytical tool for understanding outcomes for European citizens (Ferragina *et al.*, 2015)[6].

In addition and as shown above, the promotion of gender-role egalitarianism is a good way to fight against gender stereotypes. Consequently, it is important to measure the extent to which welfare-states are based on 'degenderizing policies' that promote the suppression of gender roles or, conversely, on policies that implicitly or explicitly promote differing gender roles for



men and women (Saxonberg, 2013)[7]. For the countries studied here (bottom of table 1), we find that the extent of degenderization differs between Sweden and France, parental leave strengthening women's presence in the private sphere in the latter, whereas the UK's and Switzerland's policies are implicitly genderizing. Further evidence is provided by the empirical welfare-state classification by Chybalski and Marcinkiewicz (2021), which distinguishes between the defamilization and degenderization concepts – “the former being perceived as a gender-blind concept which refers to the *freedom from the family*” (p. 400). Their typology is moreover based on the overall size of a welfare-state and the public-private mix in social expenditures[8]. While Switzerland and the UK are classified in the same cluster, “Liberal”, a striking outcome is the differing positions of Sweden and France, the former getting a much higher score in the degenderizing component and the latter a higher score in the pro-family component (table 1, last row).

In welfare-state typologies, the UK corresponds to the liberal model - characterised among other things by the fact that arrangements aimed at reconciling work and family are essentially market-driven or privately organised. Indeed, the UK has all the features of a flexible labour market, with 38% of its working women in part-time employment and lower numbers of hours worked than in France and Sweden (Table 1). In addition, less than 30% of working women have recourse to collective care for young children and equality in gender roles has yet to be achieved (Connolly *et al.*, 2016). More than elsewhere, English women are subject to the "care" or "cash for care" trade-off, where work needs to provide sufficient income to cover the expenses involved in care outsourcing. Switzerland has features resembling some aspects of the UK situation (Korpi *et al.*, 2013), with a flexible labour market, although a little more regulated, limited public support for working mothers and a division of gender roles which remains rather traditional.

The social-democratic regime to which Sweden belongs is generous in terms of government spending to support the balance between work and family life. It uses proactive measures to promote equality of roles so as to provide as many women as possible with access to employment (Wells and Bergnehr, 2014). France belongs to the conservative welfare-state regime that tends to support the status of the family as the basic unit of society. Despite strong employment protection legislation (stronger than in Sweden) and a political agenda that has included gender equality in the labour market since the 1970s, gender norms remain less progressive than in Sweden (Table 1). The promotion of gender role equality also comes up against persisting occupational gender segregation.

Table 1 about here

Assuming a strong influence from the institutional and policy support enabling women to balance managerial activities and private life, and that the cultural context regarding gender roles eventually leads to a cascade-type dissemination of egalitarian practices, the gender differential in occupation of managerial positions should be smallest in Sweden. It should be followed by France, which shares some features with Sweden, including an “extensive family policy model” (Boje and Ejrnæs, 2012). However, the fact that social rights are granted on a family basis in France suggests a model based on natalism and familialism, whereas Sweden has a long-standing commitment to gender equality and grants social rights on an individual basis. This likely explains why Sweden has degenderized better than France, as found by Saxonberg or Chybalski and Marcinkiewicz.

The UK and Switzerland, on the other hand, have a long way to go before they achieve gender-role egalitarianism, with poor scores on gender role and gender parity indexes, especially for Switzerland (Table 1)[9]. Two other factors likely strengthen the managerial gender gap in Switzerland. First, the prevalence of part-time employment (almost six women out of ten, DFI-OFS, 2017), which is known to contribute to gender inequality in managerial roles (Abendroth

*et al.*, 2013). Second, women's minority position among higher education graduates (unlike in the other countries). Switzerland should therefore show a larger managerial gender gap than the UK.

Hence, our hypothesis 1.

(H1): It is differing public support policies and cultural contexts that principally account for the managerial gender gap (MG) disparities between countries - we have the following ranking:  $MG_{se.} < MG_{fr} < MG_{uk} < MG_{ch}$

### ***2.5 Gender composition of occupations and access to managerial positions***

Many studies have shown that occupational segregation, in this instance the concentration of women in female-dominated professions, is responsible for gender-based wage disparities (Grönlund and Magnusson, 2016 ; Murphy and Oesch, 2016 among others). As wages are related to the qualifications required and to prestige within the hierarchy of occupations, we can derive hypothesis 2:

(H2) predicts that fewer managerial jobs will be available in occupations with a female-dominated staff.

Given the gender composition of occupations, do women and men have equal chances of obtaining a managerial position? Rosenfeld *et al.*, (1998) showed that an economy experiencing strong occupational segregation limits the relative advantage of men in terms of occupying managerial positions. This is consistent with the disadvantage of women found to increase with the weight of gender-mixed occupations in the economy in Dämmrich and Blossfeld's study (2017)[10]. Legal or normative pressure for gender diversity in the workplace could exacerbate competition for management positions from men. It follows hypothesis 3.

(H3): The managerial gender gap will be particularly striking in gender-mixed occupational environments.

Moreover, the incentive to stand out through status enhancement should be stronger for men in environments with a predominantly female staff, where men may need to re-establish their masculinity (Simpson, 2004). This would be consistent with the observation of Taylor *et al.* (2019) that in working environments with at least 85% women, the more managerial positions there are, the less women occupy them. Harsh competition from males for promotion to managerial positions may be less likely in male-dominated working environments.

A positive selection effect of women in male-dominated professions is also plausible, as most women in these occupations followed studies where they were in a minority and had to develop tenacity, perseverance, and motivation to succeed in a male culture (Smyth and Steinmetz, 2008). Such attributes make them suitable for positions of responsibility (having already successfully jumped both academic and professional hurdles). Accordingly, they should have more chance of accessing positions of hierarchical authority than women in female-dominated or gender-mixed occupations. Hence hypothesis 4.

(H4): Women should have a better chance of entering management in male-dominated than in female-dominated occupations.

(H5): The reverse hypothesis applies to their male counterparts.

Finally, we are interested in the extent to which such predictions depend on the more or less egalitarian state of gender relationships that prevails. It can be assumed that these selection mechanisms and behavioural disparities will be more pronounced in societal contexts where occupational gender segregation is significant. Consequently, we expect H4 and H5 to apply particularly to France, which presents the highest degree of occupational segregation according to the dissimilarity index (Table 3).

### **3. Data and methodology**

We used EU-LFS data for 2015 for France, the UK and Sweden, and the Swiss Labour Force Survey (Enquête Suisse sur la Population Active - ESPA) for Switzerland and the same year.

The sample was restricted to the employed working population aged 25 to 49[11] for two reasons. First, this is a key age range in professional life, when there are significant advancement opportunities. Second, it is also a time when people are building a family, which limits the time that women can devote to career-building. Furthermore, the differences in family policies from one country to another should have a greater impact during this stage of life.

The gender composition of occupations was calculated based on the 2008 ISCO classification of occupations in 3 digits. As in Dämmrich and Blossfeld (2017), occupations with fewer than 10 individuals are excluded because gender composition cannot reliably be determined from such small numbers[12]. In line with many previous studies and by convention, occupations are termed *female-dominated* when the share of women is greater than or equal to 70 % of the workforce, and *male-dominated* when this share is less than or equal to 30 %. *Gender-mixed* occupations fall between these two thresholds[13]. In addition, we use an index of gender occupational segregation, computing Karmel & Maclachlan's (1988) index of dissimilarity on all occupations (ID) defined as:

$$ID = \frac{1}{N} \sum_i \left| \left(1 - \frac{M}{N}\right) M_i - \frac{M}{N} F_i \right|$$

where N represents the total number of individuals in the workforce, M and F stand for the number of men and women in employment, and the subscript *i* denotes the *ith* occupation. The index gives the proportion of people required to change occupations in order to have identical distributions of men and women across all occupational groups, while keeping the overall occupational structure constant. The index ranges from 0 in the case of complete equality to twice the male share of employment multiplied by the female share in the case of complete dissimilarity.

In total, the four-country sample contains slightly more than 150,500 individuals. Note that the country sample sizes are not proportional to the sizes of the employed population in each

country; however, this does not affect the results obtained for the pool sample analysis, nor obviously for country analyses[14].

Managerial positions are empirically identified by codes 1 and 2 of the 2008 ISCO classification (1 digit), coupled with declared supervision of other employees indicating actual managerial responsibilities. In the rest of the paper, the term *manager* will be used to encompass all executives and professional employees having real managerial duties.

Regarding the methodology, logistic regressions on the probability of being a manager - *versus* holding any other position - were estimated according to several specifications. First, to measure the evenness of women's lag across countries, the model was estimated on the pooled sample and included interactions between gender and country of affiliation while controlling for the occupation's gender composition. In a second specification, interaction terms between the gender composition of occupations and the country indicator were used to control for any country-specific effect on the probability of holding a managerial position. Lastly, per country estimates were made to determine whether women's situation varies depending on the gender composition of occupations[15]. As pointed out by Mood (2010), comparing odds-ratios (O.R) between groups can pose problems in logistic regressions owing to the unobserved heterogeneity potentially related to a bias from omitted variables. We tested the robustness of our results by calculating, for each model, the Average Marginal Effects (AME) – which are not (or only very weakly) affected by unobserved heterogeneity unrelated to the explanatory variables in the model. The results support the interpretation based on the odds-ratios, presented in table 5.

In addition to country variables, occupational gender composition and the interaction terms of these variables with sex depending on the model, we considered independent variables encompassing education, family status, presence and age-range of the youngest child, age group of the respondent, labour market experience in months, company size and business sector.

Unfortunately, the working-time regime was not available in the data. Note that values for company size and age categories correspond to the answers to survey items. Means of these variables are displayed in table 2.

Table 2 about here

#### **4. Results**

Proportions of managers vary considerably from one country to another. In France, only 9% of employees held managerial positions in 2015, compared to 24% in the UK (Table 3). The UK figure is explained by the prominence in that economy of highly-skilled service activities involving a relatively high proportion of managers (Freysinet, 2018). With the exception of Sweden (positions almost equally distributed), more men than women hold these managerial positions, with a particularly large gender gap in Switzerland

Gender-mixed occupations appear to offer the largest number of managerial positions in all countries. Female-dominated occupations, especially in France and Switzerland, include only a small number of managers. They principally offer professional jobs entailing no hierarchical responsibility (accounting for 74% of jobs classified under levels I and 2 of ISCO2008 in the two countries) or more modest qualifications. Sweden is the only country where female-dominated occupations include more managerial jobs than male-dominated occupations, with female managers predominant in female-dominated occupations just as male managers are in male-dominated occupations like industry and construction (Statistics Sweden, 2017).

Table 3 about here

In summary, gender-mixed occupations, followed by male-dominated occupations, provide more managerial opportunities. The exception is Sweden, where female-dominated occupations seem to "do better" than male-dominated ones.

##### ***4.1 Countries differ in terms of managerial gender gap***

Our model results confirm the descriptive statistics. It is in the UK that employees have the highest likelihood of being managers, then in Sweden, then in Switzerland, and finally in France (Table 4, specification 1). When between-country differences in the distribution of occupational groups are not considered, women are at a disadvantage regarding managerial positions everywhere except Sweden, and this disadvantage is greatest in France and Switzerland[16].

With regard to the effect of the specific relationship between gender composition of occupations and opportunities for managerial positions within each country (Table 4, specification 2), women's relative disadvantage is the same in France, Switzerland and the UK. In these countries, women are approximately 30% less likely than their male counterparts to hold a managerial position, compared to 15% less likely in Sweden. These results tend to confirm hypothesis H1 of a Swedish model offering the most favourable context for women to aspire towards managerial positions.

In every country, the previously reported higher likelihood of holding a managerial position in a gender-mixed occupation is confirmed. Next come male-dominated occupations, which lag behind substantially in Sweden and significantly, but less, in the three other countries. Finally, female-dominated occupations offer few managerial opportunities, particularly in France, confirming hypothesis H2.

Table 4 about here

#### ***4.2 Do effects of occupational gender composition vary across the four countries?***

In all four countries, it is in gender-mixed occupations that women are found to be the most disadvantaged, confirming hypothesis H3, although this applies less in Sweden, where women are about 22% less likely than men to hold a managerial position (Table 5). However, female-dominated occupations are not as detrimental to women's managerial aspirations as expected. Whether in Switzerland, in the UK or in Sweden, women and men are equally likely to obtain a managerial position in female-dominated occupations. Only in France do women in



female-dominated occupations fare significantly worse than their male counterparts. Thus, hypothesis H5 is only confirmed for France. While the underlying reason cannot be identified, one plausible explanation is that the relative under-valuing of female-dominated occupations—a net hourly wage 19% below that of male-dominated occupations (Chamkhi and Toutlemonde, 2015) - may lead to “gender display” behaviour by male employees. To counterbalance this social devaluation, they may thus adopt what they see as masculine behaviour, becoming particularly career-oriented and geared towards obtaining positions of power and authority.

Finally, the disparity in gender gap from one country to another is strongest in male-dominated working environments. In both the UK and Sweden, women do not seem to encounter any specific barriers to attaining a managerial position in male-dominated occupations. In Switzerland, women clearly appear to be at a disadvantage[17] while, conversely, women have the advantage in France, in line with hypothesis H4. Indeed, this hypothesis of positive selection of women working in male-dominated occupations goes hand in hand with the persistence of occupational gender segregation in France as measured by the Dissimilarity index. In contrast, in both Sweden and the UK, segregated occupational environments seem to be gender-neutral in terms of managerial positions – a gender neutrality which is true in Switzerland only in female-dominated occupations.

Overall, although gender-mixed environments offer the largest number of managerial positions in the countries considered here, women working in gender-mixed occupations are at more of a disadvantage than women working in segregated work environments.

Table 5 about here

## **5. Discussion**

This international comparison provides some important lessons. Theoretical frameworks assuming the gender-based nature of aspirations to explain gender inequality in the hierarchy of occupations ignore the embeddedness of career expectations in socially and institutionally

determined environments. From this comparison of four economically advanced countries, it is clear that not all women have the same chances of obtaining a managerial position, and that it will partially depend on the country they live in and the gender-composition of their working environment.

A second lesson is that a supportive context, with generous family policies, legislation promoting gender equality, a progressive vision of gender roles, matters more than private strategies employed to compensate for a lack of institutional support and the high private costs of reconciling dual roles, as in a liberal regime such as the UK's. As regards the managerial gender gap, Sweden confirms its status as the most egalitarian country, ahead of the UK, confirming H1.

It is in Switzerland and France that women appear least likely to reach managerial positions, but the underlying mechanisms explaining this probably differ. In Switzerland, a persistent patriarchal corporate culture[18] and backwardness in gender-equality legislation likely explain Swiss women's failure to obtain managerial positions, particularly in gender-mixed and male-dominated environments. In France, occupational gender segregation and the ensuing social valuing of professions may lead to over-selection of women in male-dominated occupations, boosting women's chances. Non-statistically significant in the UK and Sweden, the gender gap offers men more opportunities in Switzerland, which suggests that social closure mechanisms work against women for managerial jobs identified as male bastions. Regarding female-dominated occupations, the hypothesis that they offer the fewest opportunities for access to managerial positions (H2) is confirmed in all four countries, particularly in France and Switzerland. However, except in France, men in these occupations fare no better than women.

Finally, an outstanding result is that the most salient gender inequality is found in gender-mixed occupations in the four countries, confirming H3, although gender-mixed occupations offer the

highest number of managerial job opportunities. Indeed, almost six managerial positions out of ten are in occupations with a relatively balanced gender composition. In terms of policy implications, this suggests that moving towards gender diversity may not suffice to reduce gender inequality of access to a managerial position. What this may reveal is a shift in workplace discrimination, from discriminatory hiring practices, increasingly controlled and scrutinized by multiple *testing* investigations, to discriminatory decisions on internal mobility and promotion within the company, harder to detect. Alternatively, this finding could be explained by gender-differentiated individual behaviours: women may lower their guard in a gender-mixed world, becoming less aware of informal career advancement criteria (networking, presenteeism, etc.), whereas men may show more aggressive competition and conquest behaviours when their numbers no longer guarantee dominance. In itself, gender diversity is therefore not a guarantee of more equal managerial opportunities for women and men.

One implication of these findings is that both human resources managers and staff representatives should be particularly vigilant on promotion in mixed occupations, to prevent indirect discrimination. The latter could arise through co-optation and networking practices designed as levers to managerial careers.

Overall, these findings also argue in favour of further investigations in a greater range of countries to clarify how the policy, institutional and cultural dimensions combine to gradually close the gender gap in managerial career perspectives. To complete the picture, future work should also consider the last third of careers, once the children have become independent, when women are likely to devote more time to professional involvement and career advancement.

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## Notes

1. <https://www.catalyst.org/research/women-in-management/>
2. Typically, the bulk of the female workforce being concentrated in a smaller set of occupations than men.
3. With some notable exceptions such as Cohen *et al.*, (1998) and Maume (1999).
4. This model is defined “by the dual beliefs that women should be active members of the labour force and that the family and home are essential to women’s identity” (op.cit., p. 502).
5. We will define below how sex-domination is measured.
6. In most of the 23 studies surveyed by Ferragina and Seeleib-Kaiser, (2011), the UK, France and Sweden are classified in the same category of Welfare-regime ideal-type, respectively the liberal regime, the conservative regime and the social-democratic regime. Only Switzerland seems to be less uniformly classified, sometimes linked to the liberal regime, sometimes to the conservative regime and more rarely to the social-democratic or the recently added Mediterranean regime.
7. As Saxonberg argues (2013, p. 33): “Some policies openly aim to reinforce separate gender roles, while other more market-oriented policies implicitly support the continued existence of gender roles...” (p.33)
8. The indicators used come from OECD and Eurostat Databases and cover the year 2014-2017.
9. In particular, Switzerland's backwardness in legislating over equality between women and men. It was only in 1996 that the Federal Law on equality between women and men came into force.
10. Study based on a comparison of access to supervisory positions in 26 European countries, both managerial and non-managerial.
11. In this way, late careers are eliminated.
12. 286 individuals were therefore excluded from the sample, as well as a few dozen occupations, some of which overlapped from one country to another, such as *Legislators and Senior Officials, Life Science technicians and related associate professionals*.
13. Applying mobile thresholds indexed to women's participation in the labour force according to the country - i.e. for example the thresholds of +/-15% around the weight of women in the labour force (Hakim 1993) - gives similar results.
14. In particular, the significances, relative magnitudes of coefficients and ordering of the different countries with respect to each other remain unchanged, regardless of whether sample sizes correspond to the available data, are proportional to countries’ respective employed populations or come from random draws of the same number of observations in each country’s sample.
15. Results of estimations that consider a possible selection bias arising from the focus on employed individuals only, using Heckman's two-step method, do not differ from those presented here.
16. Wald tests of equality of parameters show that the coefficients do not significantly differ between France and Switzerland but the coefficient for France differs significantly from that for the UK.
17. Effect not statistically-significantly different from those in a gender-mixed occupation.
18. Reflecting a result of the *Corporate Gender Gap Report 2010* for Switzerland (Kelso *et al.*, 2012), according to which women report the most important barrier to access to senior management positions as being the corporate culture, which remains patriarchal.

Table 1. Characteristics of the national contexts, 2015

	Switzerland		Sweden		United Kingdom		France	
	Men	Women	Men	Women	Men	Women	Men	Women
Activity rate (a)	87.8	78.6	83.5	79.9	83.1	72.3	75.5	67.6
Employment rate (a)	83.6	74.7	77	74	77.6	67.9	67.5	60.6
W/M distribution in the employed working pop. (b)	53.5	46.5	52.3	47.7	53.3	46.7	51.7	48.3
Unemployment rate (a)	4.8	5	7.8	7.4	5.5	5.2	10.6	9.6
Part-time employment (a)	15	58	8	28	7	38	6	28
Higher education (c)	54.6	52.4	43.4	59.2	45.9	50.3	38.1	48.8
Average annual actual working hours: full time (part time) (d) In hours	1896 (853)		1664 (1043)		1874 (873)		1646 (981)	
Employment protection strictness scale (e)	2.1		2.5		1.6		2.8	
Division of gender roles (f)	236.2 0.755		174.5 0.816		208.9 0.77		188.1 0.778	
Gender parity score (g)	70.2		49		71.5		51.1	
Share of children <3 who are not in a formal childcare system % (h)	70.2		49		71.5		51.1	
Saxonberg' Genderized welfare typology (2013) (i).	Implicitly genderizing PL (j)		Degenderizing PL and DC		Implicitly genderizing PL and DC		Explicitly genderizing PL and degenderizing DC	
Empirical Welfare-State classification of Chybalski and Marcinkiewicz (2021)	Liberal		Medium-public pro female		Liberal		Extensive Public	
Scores on each dimension (k)								
General size of welfare State	0.33		0.72		0.42		0.95	
Public-private mix (l)	0.60		0.30		0.44		0.21	
Pro-family component	0.21		0.52		0.39		0.66	
Pro-female component	0.41		0.69		0.45		0.41	

(a) OECD 2015

(b) Sources: Eurostat Data, 2015-2016

(c) Share of higher education graduates among the 30-34-year-olds in 2016, Eurostat

(d) Source: Eurostat 2015, OFS - 2015 Work Volume Statistics for Switzerland.

(e) Protection of permanent workers against individual and collective dismissal, OECD EPL Data Base: the higher, the stricter

(f) Indicator ranging from 100 to 400; the higher the value, the closer the country is to a traditional attitude on the division of gender roles. Based on the *European Value Survey 2008* questions: "A working woman can maintain warm relationships of proximity with her children" and "Pre-school age children suffer when their mother pursues a professional activity".

(g) The Global Gender Gap Report (2017), World Economic Forum. The closer to 1, the closer to parity.

(h) Sources: Eurostat Data, 2015-2016

(i): based on two dimensions: the paid level of parental leaves (PL) and State support for day care (DC)

(j): Not available for day care

(k): mean-values of synthetic indicators

(l): measures the involvement of the private sector in delivery social security, health, and educational services.

Table 2. Descriptive Statistics by country

	%	Switzerland	Sweden	UK	France
Woman		51.2	50.6	51.5	50.7
<b>Concentration in occupations</b>					
Practice of a gender-mixed occupation		37.7	41.6	45.9	33.8
Practice of a male-dominated occupation		28.5	27.5	26.6	33.4
Practice of a female-dominated occupation		33.9	31.0	27.5	32.8
<b>Education</b>					
Primary education or Lower secondary education		9.5	7.7	14.8	13.7
Upper secondary education or Post-secondary non-tertiary education		43.1	42.6	36.0	43.7

Short-cycle tertiary education or bachelor or equivalent	22.6	31.8	34.3	30.0
Master or equivalent	21.0	16.0	11.1	11.3
PhD	3.6	1.7	1.4	0.9
Unknown	0.2	0.3	2.3	0.4
<b>Family status</b>				
Single	32.4	46.8	37.9	49.1
Widowed, divorced or legally separated	8.1	3.9	9.1	6.7
Married	59.5	49.3	53.0	44.2
<b>Children</b>				
no children (or child over 24 years of age)	42.5	34.9	42.1	33.0
youngest child under 6 years old	25.9	31.6	29.5	28.7
youngest child between 6 and 24 years old	31.6	33.4	28.4	38.3
<b>Age groups</b>				
25-29	13.0	14.9	17.9	14.6
30-34	17.3	17.7	19.5	17.6
35-39	21.0	20.3	19.7	19.6
40-44	23.1	23.1	21.2	23.8
45-49	25.6	24.0	21.8	24.3
<b>Experience (months) - means</b>	130	70	70	91
<b>Company size</b>				
1 to 10 people	19.4	17.4	16.7	23.9
11 to 19 people	9.0	9.8	7.6	8.0
20 to 49 people	16.7	17.6	19.4	12.7
more than 50 people	54.9	55.2	56.3	55.4
<b>Business sector</b>				
Agriculture, forestry, fisheries	1.0	0.6	0.5	1.1
Manufacturing industry, extractive industries and others	14.6	13.5	12.5	15.1
Construction	5.2	5.8	5.0	5.8
Trade, repair	11.7	11.2	12.2	12.4
Transportation and storage	4.5	4.2	5.1	5.8
Accommodation and food service	3.7	2.1	4.7	3.1
Information and communication	3.6	4.9	4.3	2.9
Financial and insurance activities	7.2	2.4	5.2	3.5
Real estate and administrative activities	4.0	5.3	5.7	5.2
Professional, scientific and technical activities	8.1	8.9	6.2	5.2
Public administration, extraterritorial activities	5.5	8.0	7.6	10.6
Education	9.1	13.0	12.2	9.1
Human health and social work	15.4	15.4	14.8	14.8
Arts, entertainment and recreation, other service activities, Activities of households as employers	6.5	3.5	3.9	4.5
<i>Observations</i>	<i>20026</i>	<i>8277</i>	<i>18032</i>	<i>103894</i>

Reading: Women represent 51.2 % of the sample in Switzerland.

Source: EULFS 2015, Eurostat and ESPA 2015 for Switzerland.

Scope: wage-earning employed population aged 25 to 49

Table 3. Percentage of managers in working population by gender and gender composition of occupations

	% of managers							Dissimilarity index**
	All	Share of Women in %	Among Women	Among Men	Among MD §	Among GM §	Among FD §	
Switzerland	15.6	38	12	20	16.1	23.3	6.5	0.241
Sweden	17	51	17	17	10.2	25.1	11.9	0.247
UK	24*	46*	21*	26.5*	20.8*	30.1	15.4	0.224
France	9	41	7	11	7.8	15.3	3.3	0.268

Source: *EU-LFS 2015 (Eurostat)*, *ESPA 2015 (Federal Statistical Office)*

Scope: wage-earning employed working population aged 25 to 49.

§ MD: male-dominated occupations; GM: gender-mixed; FD: female-dominated.

Reading: (\*) In UK, 24% of the wage-earning working population aged 25 to 49 are employed in managerial or professional occupations with hierarchical duties, of which 46% are women; among wage-earning working women aged 25 to 49, 21% are employed as managers, 26.5% among men. Finally, still in UK, managers account for 20.8% of employees in male-dominated professions.

(\*\*) Karmel & Maclachlan's (1988) index of dissimilarity on all occupations, authors' calculations.

Table 4. Probability of holding a managerial position

Specifications	(1)	(2)
<b>Country</b>		
France	.288***	.295***
Sweden	.455***	.501***
Switzerland	.375***	.352***
UK	ref	ref
<b>Interaction Country x sex</b>		
Being a woman in France	.661***	.699***
Being a woman in the UK	.742***	.694***
Being a woman in Sweden	1.019 ns	.847**
Being a woman in Switzerland	.706***	.693***
<b>Concentration in occupations</b>		
<i>Practice of a gender-mixed occupation</i>	ref	
Practice of a male-dominated occupation	0.681***	
Practice of a female-dominated occupation	0.282***	
<b>Concentration in occupations x country</b>		
Practice of a male-dominated occupation in France	-	0.679***
Practice of a female-dominated occupation in France	-	.221***
Practice of a gender-mixed occupation in France	-	ref
Practice of a male-dominated occupation in the UK	-	0.665***
Practice of a female-dominated occupation in the UK	-	0.351***
Practice of a gender-mixed occupation in the UK	-	ref
Practice of a male-dominated occupation in Sweden	-	.495***
Practice of a female-dominated occupation in Sweden	-	.388***
Practice of a gender-mixed occupation in Sweden	-	ref
Practice of a male-dominated occupation in Switzerland	-	.773***
Practice of a female-dominated occupation in Switzerland	-	.362***
Practice of a gender-mixed occupation in Switzerland	-	ref
Constant	.217***	.217***
Pseudo R <sup>2</sup>	0.211	0.212
L1	-43370.6	-43310.5
Observations	150 229	150 229

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01. Odds-ratios

(a): independent variables include level of education, family status, presence of a young child, age group, company size and business sector - details shown in Table 2.

Source: EULFS 2015, Eurostat and ESPA 2015 for Switzerland.

Scope:

Table 5. Probability of holding a managerial position by country

	Switzerland	Sweden	UK	France
<b>Gender x Concentration in occupations</b>				
Being a woman in a female-dominated occupation	.944	.862	1.159	0.663***
Being a women in a male-dominated occupation	0.718***	1.04	0.879	1.132**
Being a woman in a gender-mixed occupation	.592***	.777***	.578***	.604***
<b>Concentration in occupations</b>				
<i>Practice of a gender-mixed occupation</i>	ref	ref	ref	ref
Practice of a male-dominated occupation	.804***	.445***	.599***	.574***
Practice of a female-dominated occupation	.252***	.278***	.197***	.215***
<b>Education</b>				
Primary education or Lower secondary education	.23***	.579***	.52***	.449 ***
<i>Upper secondary education or Post-secondary non-tertiary education</i>	ref	ref	ref	Ref.
Short-cycle tertiary education or bachelor or equivalent	3.079***	3.772***	3.137***	6.483***
Master or equivalent	4.732***	5.72***	4.426***	17.28***
PhD	9.13***	7.696***	3.57***	14.26***
Unknown	.544ns	.658	1.318**	.688
<b>Family status</b>				
<i>Single</i>	ref	ref	ref	ref
Widowed, divorced or legally separated	1.172*	1.09	1.155*	1.21***
Married	1.12*	1.263***	1.337***	1.244***
<b>Children</b>				
<i>no children (or child over 24 years of age)</i>	ref	ref	ref	ref
youngest child under 6 years old	0.942	1.106	1.07	1.165***
youngest child between 6 and 24 years old	0.999	1.296***	.927	1.25***
<b>Age groups</b>				
25-29	ref	ref	ref	ref
30-34	.406***	.667***	.593***	.365***
35-39	.626***	.77**	.754***	.626***
40-44	.886*	.992	.921	.746***
45-49	.942	1.083	.982	.937*
Experience (months)	.996	1.021***	1.046***	1.026***
<b>Company size</b>				
1 to 10 people	0.834***	.788**	.989	.892***
11 to 19 people	0.894	.919	.843**	1.251***
20 to 49 people	0.985	.924	.94	1.01
<i>more than 50 people</i>	ref	ref	ref	ref
<b>Business sector</b>				
Agriculture, forestry, fisheries	.619*	.954	.308***	.331***
Manufacturing industry, extractive industries and others	.891ns	.528***	.615***	.933
Construction	.282***	.602**	.974	1.1 *
Trade, repair	1.156	.521***	.675***	0.949
Transportation and storage	.666***	.38***	.354***	.671***
Accommodation and food service	1.153	.386***	.741**	1.428***
<i>Information and communication</i>	ref	ref	ref	ref
Financial and insurance activities	.854	.445***	.669***	.793***
Real estate and administrative activities	.738*	.548***	.691***	0.75***
Professional, scientific and technical activities	1.394***	.768*	1.061	1.08
Public administration, extraterritorial activities	0.745**	.417***	.357***	0.618***
Education	.651*	.727**	.991	0.274***
Human health and social work	1.913***	1.387**	1.39***	1.705***

Arts, entertainment and recreation, Other service activities, Activities of households as employers	.792*	.597**	0.84	0.743***
Constant	.178***	.167***	.281***	0.046***
Pseudo R2	0.176	0.161	0.149	0.232
ll	-7135.7	-3153.6	-8384.6	-23874.8
Observations	20 026	8 277	18 032	103 894

\* p<0.10, \*\* p<0.05, \*\*\* p<0.01. Coefficient alone: not significant. Results are given in Odds-ratios.

Source: EULFS 2015, Eurostat and ESPA 2015 for Switzerland.

Scope: wage-earning employed population aged 25 to 49.