The Hierarchy of Care Work: How Immigrants Influence the Gender-Segregated Labor Market

Kjersti Misje Østbakken 📵 ,* Julia Orupabo 📵 , and Marjan Nadim 📵

The devaluation of care work is regarded as a main explanation for the dominance of women in care work. However, less attention has been paid to how such devaluation affects not only the gender balance of jobs but also their ethnic and racial composition. This article examines patterns of gender and ethnic segregation and inequality within different types of care work. Using high-quality linked administrative register data covering the period 2004–2017, the analysis shows that although the strong female dominance in care work is relatively stable, a shift in the composition of workers has occurred. While native women are leaving the most devalued types of care work, they are replaced by immigrants—both women and men. The findings underscore how patterns of gender segregation are influenced by immigration, and that not all men benefit from being men in female-dominated occupations.

Introduction

Although recent contributions show progress toward gender equality, they also document a slowdown in this progress (England, Levine, and Mishel 2020; England, Privalko, and Levine 2020). Men and women continue to occupy different occupations, and since occupational segregation is a key cause of the gender pay gap, it is important to examine trends in how segregated occupations are (Blau and Kahn 2017; England, Privalko, and Levine 2020). Care work contributes significantly to upholding a gender-segregated labor market as it constitutes a large part of the paid labor market and is heavily female dominated (e.g., Dwyer 2013; Reisel 2014). Despite the professionalization and institutionalization of care, much labor market care work continues to be regarded as low status; it is labeled as women's work and is relatively low

Institute for Social Research, Oslo, Norway *k.m.ostbakken@socialresearch.no

socpol: Social Politics, 2022 pp. 1–9 https://doi.org/10.1093/sp/jxac039

 \odot The Author(s) 2022. Published by Oxford University Press.

This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivs licence (https://creativecommons.org/licenses/by-nc-nd/4.0/), which permits non-commercial reproduction and distribution of the work, in any medium, provided the original work is not altered or transformed in any way, and that the work is properly cited. For commercial re-use, please contact journals.permissions@oup.com

paid (Elstad and Vabø 2021; England, Budig, and Folbre 2002). Scholars have raised increasing concern over labor market outcomes for care workers and the implications of devaluing care work for gender inequality (Budig, Hodges and England 2019).

While much of the research literature rightfully has shed light on how women suffer from the devaluation of care work, for example, in terms of poor working conditions and a wage penalty (Budig, Hodges, and England 2019; England, Budig, and Folbre 2002), several studies have demonstrated that immigrants and racial minorities are concentrated in the worst care work jobs in terms of wage levels (Duffy 2007; Dwyer 2013; Glenn 1992; Hodges 2020). Thus, to accurately grasp the processes of gender segregation in care work, it is crucial to distinguish between different types of care work and deploy an intersectional lens on the mechanisms of inequality in the gendersegregated labor market. This article examines how different kinds of workers are allocated to different kinds of care work. More specifically, we study patterns of gender and ethnic segregation, and how these are connected to patterns of polarization—in terms of the different allocation of workers in the hierarchy of care work. As observed by Hodges (2020), although paid care work has been identified as a primary nexus of gender and racial labor market disadvantage, the mechanisms explaining these patterns have not yet been fully disentangled.

Most studies of care work are limited to nurturant care work—that is, work in occupations that often involve face-to-face interaction, require relational skills, and develop the capabilities of the recipients (England, Budig, and Folbre 2002). Nurturant care work typically includes jobs in fields such as teaching, childcare, and healthcare. However, scholars have challenged the oversimplified and narrow understandings of care work found in much of the research literature, emphasizing that care work encompasses a range of jobs that are differently positioned in the occupational hierarchy (Duffy 2005; Dwyer 2013). Care workers are represented among both the highest-paid and lowest-paid employees in the labor market (Budig, Hodges, and England 2019). A broad conception of care as work that contributes to the health, well-being, or development of other people (Duffy 2005; Dwyer 2013; England, Budig, and Folbre 2002) also involves activities that are not relational, such as cleaning, food preparation, and food service. To identify these types of activities, scholars have introduced the term reproductive care work (Duffy 2005; Glenn 1992), which refers to nonrelational care work that often entails physical labor and takes place in "backstage" contexts.

This study considers how immigrants influence patterns of gender segregation in care work in the Norwegian labor market and examines whether processes of gender segregation play out differently in different types of care work, distinguishing between reproductive and nurturant care work, as well as care work in different parts of the status hierarchy. Using a broad conception of care work, we identify processes of polarization and ethnic and gender

inequalities in care work. The empirical analysis covers a period (2004–2017) during which gender segregation has declined and labor immigration has increased, providing an interesting vantage point for studying processes of gender and ethnic segregation. Using high-quality linked administrative register data, the analysis shows that although the strong female dominance in care work is relatively stable, a shift in the composition of workers has occurred. While native women are leaving the most devalued types of care work, they are replaced by immigrants—both women and men. The findings underscore how patterns of gender segregation are influenced by immigration, and that not all men benefit from being men in female-dominated occupations.

Devaluation and Gender Segregation

Various studies have documented the processes that culturally devalue and lower the competence and rewards associated with roles historically held by women, thus affording them low social status (Phillips and Taylor 1980; Reskin and Roos 1990; Ridgeway and Cornell 2006). As Acker (1990) has argued, organizations are gendered in that qualities culturally associated with men (e.g., leadership and being goal orientated) are built into the job descriptions of higher-status and higher-paid occupations, while qualities associated with women (e.g., passivity and being nurturing) are favored in low-paying jobs. Care work serves as an illustrative case of processes of devaluation and gender segregation, and some argue that care work jobs are even more likely than other female-dominated jobs to be devalued because of their association with motherhood and women's traditional unpaid work (England, Budig, and Folbre 2002). Care labor is not perceived as a skill but as an extension of women's natural character as emphatic and of their domestic role as caregivers (Dwyer 2013; England, Budig, and Folbre 2002; McDowell 2009). Despite the institutionalization of care, labor market care work continues to be low paid, regarded as low status, and labeled as women's work (Elstad and Vabø 2021; Hussein and Christensen 2017). Skilled care work, placed in the upper-middle of the job structure, is also often not as well paid as other similarly skilled professions (Dwyer 2013).

The devaluation of care work has been seen as a main factor explaining the absence of men and the dominance of women in care work. A key concern within the scholarly work on gender segregation is that change in the gender system has been deeply asymmetric (England, Levine, and Mishel 2020). Because women's work is devalued, women have strong economic incentives to enter men-dominated occupations, while men have few incentives to enter women-dominated occupations (England 2010). Men's limited movement into female-dominated occupations has been identified as a key barrier to future declines in occupational gender segregation (Moskos 2020; Torre 2018).

Moreover, gender segregation is expressed at a very detailed level also within care work. The concept of the "glass escalator" illuminates that men, although they belong to a minority, have advantages in female-dominated occupations (Williams 1992). Studies show that men do not suffer from being the gender minority, but work in more prestigious fields, earn more, and are often pushed into management positions when employed in female-dominated occupations (Evans 1997; Simpson 2004; Williams 1992). Thus, men ride the glass escalator and come to occupy different types of care work than women.

Scholarly work on devaluation has made significant progress in documenting the gendered nature of inequality in the labor market, but how the influx of immigrants into gender-segregated occupations might shift the nature of employment hierarchies and the distribution of opportunities (Orupabo and Nadim 2020) remains underexamined. Importantly, the devaluation of care work not only shapes the gender balance of occupations but also affects their ethnic and racial composition.

Immigration and Occupational Hierarchies

The growth of the care sector, which is associated with a "care deficit," changing family structures, and an aging population, provides new employment opportunities, especially for immigrants—both women and men (Hussein and Christensen 2017). However, immigrants and racial minorities tend to become concentrated in the worst care work jobs and attain a more precarious work situation than native workers (Behtoui et al. 2017; Duffy 2007). A recent study suggests that for Black workers, social closure and labor market discrimination remain key explanations for the persistent occupational segregation in care work (Hodges 2020). While white women are advancing in the occupation structure, minority women, many of whom are newly arrived immigrants, are taking over the low-status care work (Duffy 2007; Dwyer 2013; Glenn 1992; Hodges 2020). At the same time, immigrant care workers can contribute to the increased earnings of native mothers by lowering the price of domestic care work (Strader 2022). Nevertheless, there is a need for more knowledge about immigrants' vulnerable position within care work (Orupabo 2022; Williams 2018).

Moreover, immigrant men in care work do not necessarily ride the glass escalator (Williams 1992). The glass escalator effect reflects not only gender advantage but also racial privilege, and not all men benefit from their token status as men doing "women's work" (Wingfield 2009). Although women have historically had lower status and less bargaining power in the labor market than men, native women might be better positioned than immigrant men. While natives may be unwilling to take on devalued jobs because of the low pay and low status, immigrants and racial minorities lack positional power in

the workplace and are often less "demanding," accepting jobs and working conditions that natives will not (Friberg and Midtbøen 2018; Ruhs and Anderson 2010; Waldinger and Lichter 2003). Thus, to explore change and stability in the gender composition of care work, it is necessary to extend the analysis beyond a focus on gender and to examine the intersection of gender and immigrant status (cf. McCall 2011; Prokos 2011). A focus limited to gender segregation can mask important developments in terms of who inhabits different types of jobs. Moreover, to explore segregation in relation to polarization, it is necessary to distinguish between different types of care work.

Polarization of Care Work

What counts as care work? The care work literature has mainly defined care work as a practice with a strong emotional dimension based on human connection (Duffy 2005). Care is depicted as a unique practice and skill, with an emphasis on relationality and face-to-face services (England, Budig, and Folbre 2002; Hochschild 1995). However, Duffy (2005) argues that care work should be understood in a broader sense that additionally encompasses nonrelational activities and jobs. Care labor can accommodate a wide range of social reproduction activities, ranging from highly intimate and relational social and health care services to less intimate and relational ones, such as cooking, cleaning, ironing, and general maintenance work (Yeates 2005).

Duffy (2005, 2007) proposes a theoretical distinction between nurturant and reproductive care work. Nurturant care work often involves face-to-face interaction, requires relational skills and knowledge about human bodies and capacities, and develops the capabilities of the recipients. This kind of care work, therefore, involves a significant relational and caregiving dimension (cf. England, Budig, and Folbre 2002) and typically includes jobs such as teaching, childcare, and various healthcare occupations. Reproductive care work, on the other hand, maintains daily life but does not entail substantial face-to-face service provision and cannot be said to develop the human capabilities of the recipient. Reproductive care work often entails physical labor, such as food preparation, cooking, and cleaning (Duffy 2005). This kind of care work has also been conceptualized as "backroom" jobs and manual labor (Glenn 1992).

Different types of workers are allocated to different types of care work. While nurturant care work has been found to be dominated by white women, reproductive care work is mainly performed by immigrants (Duffy 2005, 2007; Glenn 1992; Hodges 2020). Glenn (1992) has shown that white women tend to be the "public face" of care work concentrated in jobs that require interaction, whilst Black, Asian, and Latina women tend to do the invisible care work as, for instance, maids and kitchen workers. In order to capture patterns of inequality in the care services sector and the complex positioning of immigrants, it is therefore necessary to employ a broad definition of care and

distinguish between different types of care work (cf. Yeates 2012). This study builds on Duffy's (2005, 2007) distinction between nurturant and reproductive care work to examine how immigration has affected processes of gender segregation in the care industry and, in particular, how patterns of polarization in care work are gendered and racialized.

Care in the Norwegian Context

Most work on polarization in care work comes from the US context, where care is provided through the market and women's unpaid care (Dwyer 2013). Yet, context matters and cross-national variations in labor market policies impact among other things the gender wage gap in care work (Budig and Misra 2010). This study sets out to examine polarization and inequality in a context that in important ways differs from the US context, namely Norway.

Norway represents a social democratic welfare regime (cf. Esping-Andersen 1990) and has one of the highest female employment rates among OECD countries (Organisation for Economic Co-operation and Development). The Nordic welfare state can be characterized as a "caring state" (cf. Leira 1994): both men and women are expected to work, while the state provides high-quality care for its citizens. The rise of the welfare state has led to a substantial expansion of public employment, particularly within health, education, and social services. Whereas in liberal welfare states, such as the United States, a considerable share of such care and social service jobs are marketized and placed in the private sector, in the expansive Scandinavian welfare states, these jobs are concentrated in the public sector (Esping-Andersen 1990). The public sector is, therefore, central to women's labor market participation, both because it provides social and family services and because it serves as a major employer of women (cf. Mandel and Semyonov 2006).

While Norway consistently ranks among the most gender-equal countries in the world, it has a highly gender-segregated labor market—something that has been referred to as a gender equality paradox (Birkelund and Petersen 2003). Care work is particularly significant for gender segregation in the Nordic welfare states, which provide extensive social care services for their citizens, thus creating a large job market for publicly funded care work (e.g. Leira 1994). In Norway, the care industry is the single largest employer in the labor market and care work is heavily female dominated (Reisel 2014).

Although Norway has a relatively short history of immigration, the growth in immigration means that immigrant status or ethnicity has become increasingly relevant to understanding mechanisms of segregation and inequality in the labor market. The first main stage in immigration to Norway started in the late 1960s when a substantial number of labor migrants from countries such as Pakistan and Turkey arrived in response to increasing demands for labor in the industry and service sectors. While Norway stopped labor

migration in 1975, a steady flow of family migration occurred from the late 1970s. From the 1980s, the number of refugees, particularly from countries such as Iran, Chile, Vietnam, and Sri Lanka, increased noticeably. With the EU enlargements in 2004 and 2007 toward Eastern Europe, Norway experienced a sharp increase in immigration in the form of labor migration from Poland and Lithuania (Brochmann and Knut 2008; Sandnes 2017). At the beginning of 2021, around 800,000 immigrants lived in Norway, constituting just under 15 percent of the population (Gulbrandsen et al. 2021). Norway has a diverse immigrant population, with most immigrants stemming from countries within the European Union (7 percent), followed by Asia including Turkey (6.2 percent), Africa (2.6 percent), and non-EU countries (1.9 percent). Immigrants from North and South America and Oceania constitute less than 1 percent of the population. (Statistics Norway, table 09817).

To date, little research has been conducted on how the presence of immigrants in the Norwegian labor market affects patterns of gender segregation. Ethnic minorities are concentrated in occupations without formal educational requirements and overrepresented in some of the most women-dominated and low-skilled occupations (Reisel 2014; Umblijs, Orupabo, and Drange 2022). On the one hand, this implies that more men are entering women-dominated occupations. On the other hand, immigrant women are also overrepresented in these occupations, meaning that the overall gender composition may not have drastically changed.

Data

This study's analyses build on linked administrative register data from Norway (2004–2017), which comprise detailed information on individual- and firm-level characteristics, such as gender, education, immigration status, employer, industry, and occupation. Our period of observation covers more than a decade after two EU expansions toward Eastern Europe (2004 and 2007), which contributed to a surge in labor immigration in Norway (Hoen 2020).

Our sample constitutes all jobs registered by May 15 each year. It includes employees aged twenty to sixty-five and excludes individuals who are registered as students as well as jobs for which the total yearly earnings total less than one basic amount of the Norwegian Social Security system.²

Occupation, type of work, gender, and immigrant status are key variables in the analysis. Individuals born outside of Norway to a non-Norwegian mother are considered immigrants, while individuals born in Norway or abroad to a Norwegian resident mother are considered native. Note that Norwegian-born natives also include second-generation immigrants. Immigrants are divided into three groups based on their region of birth: Western countries (Nordic, Western European, Northern American, and

Oceanian countries), East European countries (the Baltics, former Soviet, and Yugoslavian countries), and non-Western countries (Asian, African, Southern American, and Latin American countries).

Care work is identified by occupational codes (see tables A1 and A2 in Appendix A1), with the categorization of occupations in Duffy (2005, 75) used to code the specific occupations. However, as not all occupations are directly transferable to the Norwegian context, the coding strategy relied on Statistic Norway's Standard Classification of Occupations³ for information about the content of each occupation. Following Duffy (2005, 73), the criteria for including an occupation as care work are as follows:

- the work maintains daily life (physical or mental health, food preparation and service, cleaning, personal care); or
- the work reproduces the next generation (care of children and youth).

Second, the criteria for defining an occupation as nurturance, which builds on the work of England and her colleagues (England 1992; England, Budigm and Folbre 2002), are:

- the job should involve face-to-face service with clients, not managers or other employees;
- the face-to-face service provision should constitute a major part of the worker's time; and
- the face-to-face service provision must develop the human capabilities of the recipient, including physical and mental health, physical skills, cognitive skills, and emotional skills.

Care work that does not fall into the nurturance category is considered reproductive care work.

The Status of Care Work

The care sector in Norway constitutes a significant part of the labor market, accounting for nearly one-third of all jobs (see figure 1). It is heavily female dominated, with a female share of 76 percent, while the immigrant share is 21 percent. These are distinctly higher than the female share in the labor market of 47 percent and immigrant share of 18 percent. Distinguishing between different types of care work highlights that nurturant work, which has conventionally been considered the primary type of care work, comprises most of the care work in Norway, while reproductive work represents a small share (in line with the findings of Duffy (2005) for the United States). However, female dominance is not uniform within the care sector; while nurturant occupations are mainly carried out by women, reproductive care work has a higher share of men. Also, in reproductive work, nearly 50 percent of jobs are held by

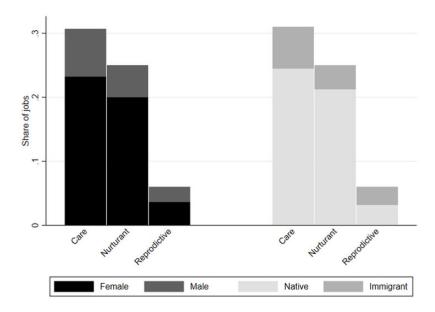


Figure 1 Share of jobs, female and immigrant shares, in care work (2017).

Note. The figure illustrates the share of jobs in care work overall and separated into nurturant and reproductive care work, held by females and males, and by natives and immigrants.

immigrants, while immigrants constitute 15 percent of jobs in nurturant work. Thus, there is clear gender and ethnic segregation within care work.

While the patterns of gender and ethnic segregation are examined in more detail below, it is first useful to better understand the devaluation of care work. Previous research has shown that care workers earn less than others with comparable human capital and work demands (Budig, Hodges, and England 2019), and the status of care work continues to be low. To illustrate the relative position of care work in the labor market, occupations are ranked based on quintiles of the median occupational wage among full-time employees in 2004, with occupational wage (status) rank 1 referring to the lowestranked occupations and rank 5 the highest. The employment shares are then calculated by these quintiles in 2004 and 2017 and split into care and noncare occupations, as presented in figure 2. Care work is clearly clustered in the lowest ranks. It is nearly absent in the top of the occupational wage rank distribution in 2004 and 2017, although some care work occupations, such as medical doctors, dentists, and psychologists, can be found in the top ranks. Figure 2 further reveals an occupational upgrading in the labor market from 2004 to 2017, manifested by declining employment shares in the lower ranks and

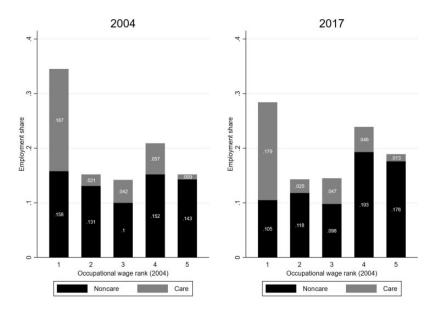


Figure 2 Occupational wage rank and the share of noncare and care work (2004, 2017).

growing shares in the higher ranks. However, this process is driven by changes in noncare employment.

Distinguishing between nurturant and reproductive care work highlights differences between care work of different status and position in the labor market, which are further underscored by differences in employment protection. Nurturant work enjoys the universalistic employment practices and higher job security of public sector employment, while reproductive work is marketized and concentrated in the private sector.⁴

To examine the care sector in more detail, the occupations within the care sector are ranked by median wage in figure 3. The distribution of employment shares is skewed to the left, with the highest share of employees in the lower-ranked care occupations. Nurturant work, which represents the majority of care work in Norway, is found both at the bottom and in the middle of the occupational wage rank, while reproductive work is mostly located at the lower end of the rank. Distinguishing between nurturant and reproductive care work shows that the duality in care work in the United States documented by Dwyer (2013) is also present in Norway, where natives to a greater extent occupy the better-paid nurturant care work, while immigrants are over-represented in reproductive care work at the lower end of the income hierarchy.

Does the duality between different types of care work indicate a polarization of care work? Barth and Østbakken (2021) find that the Norwegian labor

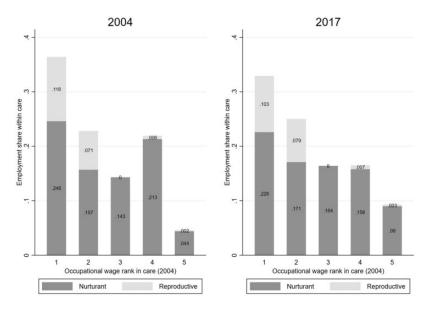


Figure 3 Occupational wage rank within care and the share of nurturant and reproductive work (2004, 2017).

market has not become more polarized but that the occupational structure has been upgraded with growing employment shares in high-ranked occupations and declining employment shares in lower ranks. In the current study, the change in employment shares across quantiles from 2004 to 2017 is calculated, following the literature on the polarization of the labor market (Autor, Levy, and Murnane 2003). In line with Barth and Østbakken (2021), the findings provide no evidence of a polarization of the labor market in either the noncare or care sectors during the observation period. While the noncare sector has experienced a decline in employment shares in lower-paid occupations and growth in the best-paid occupations, the employment shares in the care sector have been stable across the occupational wage distribution.

Investigating the care sector in detail and ranking all occupations within the care sector reveals a pattern of occupational upgrading in nurturant work, as there has been a growth in the employment share in nurturant occupations at the higher end of the occupational wage structure. However, the same pattern of upgrading does not occur in reproductive care work. Changes in reproductive work are small, indicating that the employment structure in this type of care work has remained stable over the period studied and that reproductive work continues to be low-waged and low-status work. In sum, the findings show little evidence of ongoing polarization in care work.

The analyses above demonstrate that a distinction between nurturant and reproductive care work captures significant differences in types and statuses of

work. The next section considers changes in the composition of workers in care work in greater detail to examine who inhabits different types of care work and whether the influx of immigrants has influenced patterns of gender segregation in this labor field.

The Influx of Immigrants and Gender Segregation

Female dominance in the care sector is an important driver of gender segregation in the labor market. Table 1 shows the relative concentration—or overrepresentation—of men, women, and immigrants in care work relative to the labor force participation rate. Perfect proportional representation gives a ratio of exactly 1. Therefore, a representation ratio >1 indicates that the group is overrepresented, while a representation ratio <1 indicates underrepresentation. Women are overrepresented in care work overall as well as in different types of care work. Female overrepresentation is increasing in nurturant occupations but the concentration of women declined in reproductive occupations from 2004 to 2017. A closer look at the ethnic composition of different types of care work reveals some important patterns. Most immigrant groups, except non-Western, are near proportionately represented in care work relative to their overall representation in the labor market. Immigrant women, particularly those of East European and non-Western backgrounds, are overrepresented within care work and, most notably, within reproductive care work. While native, Western, and East European men are underrepresented in care work overall, East European and non-Western men are overrepresented in reproductive care work.

The analysis reveals, therefore, how different types of care work have different composition of workers. In line with the previous findings from the United States (Dwyer 2013), the data show that nurturant care work is dominated by native women. Nevertheless, as seen in figure 4, although the male/female composition of this type of care work remains stable, the composition of women within nurturant work is changing slightly: the share of native women is in decline, and the share of immigrant women is increasing. In reproductive work, however, both the gender and ethnic composition are changing substantially: the male share—and, in particular, the immigrant male share—of reproductive work is increasing. Although the share of native women has dropped, the inflow of East European and non-Western immigrant women has maintained the female dominance of this type of care work.

Table 2 reveals these gendered and ethnically diverse employment patterns in greater detail by depicting the occupational gender segregation in 2004 and 2017. The well-known Duncan Index of Dissimilarity (the Duncan Index) is used to measure whether one gender has a larger share than the other in a given occupation (Duncan and Duncan 1955). The index takes values in the [0,1] interval and indicates the share of men (or women) who would have to

m 11 -		c				1
Table I.	Overrepresentation	of women,	men, and	immigrants	in occupationa	al groups

				R	elative c	oncenti	ation	
	Employn	nent share	Care	work	Nurt	urant	Repro	ductive
	2004	2017	2004	2017	2004	2017	2004	2017
Women	0.48	0.47	1.60	1.62	1.66	1.70	1.38	1.30
Men	0.52	0.53	0.45	0.45	0.40	0.38	0.64	0.74
Native	0.92	0.82	0.97	0.96	1.00	1.12	0.85	0.65
Western	0.04	0.05	1.09	0.95	1.08	0.95	1.15	1.16
East European	0.01	0.07	1.36	0.94	0.97	0.55	2.98	2.60
Non-Western	0.03	0.06	1.68	1.67	2.98	2.60	4.61	3.81
Women								
Native	0.44	0.39	1.58	1.57	1.66	1.57	1.25	0.86
Western	0.02	0.02	1.63	1.43	1.72	1.48	1.26	1.22
East European	0.00	0.02	1.93	1.89	1.47	1.22	3.81	4.73
Non-Western	0.02	0.03	1.63	1.43	1.51	0.58	5.04	4.23
Men								
Native	0.48	0.43	0.40	0.40	0.38	0.39	0.49	0.46
Western	0.02	0.03	0.64	0.58	0.54	0.45	1.05	1.12
East European	0.00	0.04	0.78	0.37	0.45	0.14	2.12	1.32
Non-Western	0.02	0.03	1.28	1.43	0.54	0.63	4.29	3.41

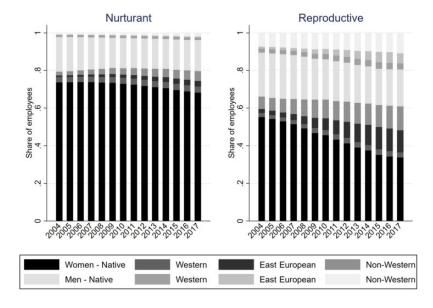


Figure 4 The gender and ethnic diversity of care work (2004–2017).

Table 2. Gender segregation in the labor market and care sector. Duncan Index (2004, 2017)

	The labo	or market	The car	e sector
	2004	2017	2004	2017
Natives	0.60	0.55	0.43	0.38
+ Western immigrants	0.59	0.54	0.43	0.38
+ Eastern European immigrants	0.59	0.55	0.42	0.37
+ Other non-Western immigrants	0.59	0.54	0.40	0.34

change occupation to achieve an equal gender distribution over occupations. A Duncan Index value of 1 illustrates a situation of complete segregation between occupations, while a value of 0 indicates a perfect gender balance. In the literature, scholars often refer to values above 0.6 as high segregation, values of 0.4–0.6 as medium segregation, and values below 0.4 as low segregation. In this study, immigrants' contribution to overall gender segregation is assessed by calculating separate Duncan Indexes for a sample consisting of natives only and then sequentially adding Western, East European, and non-Western immigrants to the analysis.

Table 2 indicates that the overall gender segregation in the Norwegian labor market is medium—high and has declined from 2004 to 2017. The employment patterns of natives are gendered to a higher degree than among immigrants, but the segregation index for the labor market drops by only 0.01 when immigrants are included in the calculations. As such, the desegregating impact of immigration is considered small. Gender segregation is lower within the care sector than in the overall labor market. This illustrates an important point: although the female-dominated care sector is an important component in the overall segregation, occupational segregation within the care sector could be smaller because there is a stronger selection of men in this sector and the range of occupations to choose from is fewer. Table 2 also reveals that gender segregation within the care sector declined from 2004 to 2017 and that the occupational distribution among Western immigrants mimics those of natives.

The occupational distribution among East European and non-Western immigrants in the care sector is less traditional than those among natives and Western immigrants and has a relatively strong desegregating impact on the sector. These desegregating processes are heterogeneous not only across groups of workers but also across the type of care work. Figure 5 illustrates gender segregation within care in nurturant and reproductive care work across immigration groups. The dotted line shows the Duncan Index of gender segregation among native employees; then we add Western immigrants and

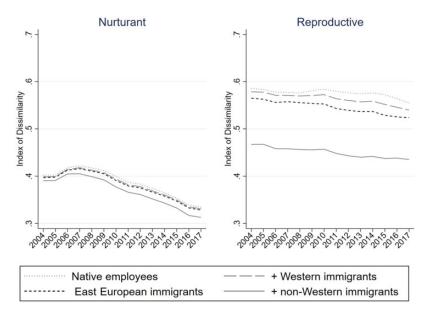


Figure 5 Gender segregation in nurturant and reproductive care work. Duncan Indexes (2004–2017).

report the Duncan Index among natives and Western immigrants in the long-dashed line and add East Europeans in the long-dashed line. The solid line includes non-Western immigrants as well—that is, our full sample.

Gender segregation within nurturant care work declines over the course of the observation period. The occupational distribution among immigrants shifts the level of segregation slightly down from the dotted line for natives to the long-dashed and short-dashed lines when Western and East European immigrants are included, respectively. Adding non-Western immigrants shifts the level of segregation further down to the solid line. Thus, the occupational distribution among non-Western immigrants has a desegregating impact on nurturant care work. The impact is constant over time, small in magnitude, and does not intensify over the observation period.

In reproductive care work, however, more distinct differences in segregation levels occur between natives and immigrants. More than 55 percent of the native men (or women) would have to change occupation in reproductive care work to achieve gender balance among natives, but when all immigrants are included, gender segregation declines considerably and only 45 percent would have to change occupation. Immigrants' occupational distribution contributes to a considerable negative shift in the level of segregation, which is constant over time. The desegregating processes among natives in reproductive care work are slower than in nurturant care until 2014. After 2007, Western immigrants have an increasingly stronger impact on the level of segregation.

On the one hand, the decline in gender segregation over time could occur on the supply side: the supply of labor changes such that the gender balance within occupations improves—the gender composition component. On the other hand, it could occur on the demand side: the demand for skills changes and affects the occupational composition of the labor market—the occupational mix component. A decomposition of the Duncan Index into these two components sheds light on the underlying mechanisms behind the desegregating processes described above. The method was initially proposed by Fuchs (1975) and has subsequently been employed in various studies on segregation (Blau, Brummund, and Liu 2013). In table 3, changes in the Duncan Index are decomposed into these two components for care work and separate nurturant and reproductive work. The gender composition component quantifies how much the segregation index would have changed if the relative size of each occupation remained constant and only the gender composition changed. The occupation mix component measures how gender segregation would have changed if the gender composition remained constant and only the relative size of each occupation changed. After starting with natives only, Western, East European, and non-Western immigrants are added sequentially to investigate any heterogeneous patterns of gender on the occupational mix component.

These analyses show that the ongoing gender desegregation is driven by changes in the occupational gender composition for all types of care work and groups of workers. Thus, the decline in segregation can be explained by changes in the supply of workers in care work. In fact, the Duncan Index in the care sector would have been nine percentage points lower in 2017 due to improved gender balance (changes in supply) if the occupational composition had remained constant. The occupational mix, however, has become more unfavorable in terms of gender segregation because gender-dominated occupations have grown relative to more gender-balanced occupations. For the care sector, segregation would have been four percentage points higher in 2017 if the gender composition of occupations had remained constant. Although the changes in the Duncan Index and the size of the contributions from the two components vary across types of care work, the pattern is consistent across groups.

The analyses above demonstrate how the influx of men from immigrant backgrounds influences the level of gender segregation. The next section explores where groups of differing immigrant or nonimmigrant backgrounds are positioned in the status hierarchy of care.

Positioning Different Groups in the Status Hierarchy of Care

Our findings so far show patterns of gender desegregation, especially through the influx of immigrant men. A central question is how these gender

Table 3. Decomposition of the segregation index within the care sect	Table 3.	Decomposition	of the segre	egation inde	ex within the	care sector
---	----------	---------------	--------------	--------------	---------------	-------------

	Duncan Index (DI)		Change DI	Component		
	2004 ^a	2017 ^a	(2017–2004)	Gender composition	Occupational mix	
Care						
Natives	0.43	0.38	-0.05	-0.08	0.03	
+ Western	0.43	0.38	-0.05	-0.08	0.03	
+ East European	0.42	0.37	-0.05	-0.08	0.03	
+ Non-Western	0.39	0.34	-0.05	-0.09	0.04	
Nurturant						
Natives	0.40	0.33	-0.07	-0.09	0.02	
+ Western	0.40	0.33	-0.07	-0.09	0.02	
+ East European	0.40	0.33	-0.07	-0.09	0.02	
+ Non-Western	0.39	0.31	-0.08	-0.10	0.03	
Reproductive						
Natives	0.58	0.55	-0.03	-0.04	0.01	
+ Western	0.58	0.54	-0.04	-0.04	0.00	
+ East European	0.56	0.52	-0.04	-0.04	0.00	
+ Non-Western	0.47	0.44	-0.03	-0.04	0.01	

Note. ^aThe Duncan Index may deviate from previous tables and figures because the decomposition requires all occupations to be observed in both 2004 and 2017. Previous results are not restricted in this manner.

desegregating processes are connected to changing patterns of inequality—in terms of position in the labor market hierarchy—across gender and ethnicity. To examine how different groups are positioned in the hierarchy of care work, the measure of rank of care work used in figure 3 is employed, and the gender and immigrant shares of employees in these ranks in 2004 and 2017 are calculated for nurturant and reproductive care work separately. The shares are presented in figure 6. Note that there are no reproductive occupations in the middle rank, as shown in figure 3. These analyses reveal that an increasing share of women enters high-paid nurturant care occupations, as shown in figure 6. The female shares in the lower-ranked occupations in both nurturant and reproductive work show a small decline, although female dominance is still exceptionally high. This stability in the female dominance in low-ranked care occupations is largely maintained by immigrant women. The share of men in high-paid nurturant care occupations has declined from 2004 to 2017, mainly due to a decline among native and Western immigrant men. In the lower ranks of nurturant occupations, the share of immigrant men is increasing, but still very low. In reproductive work, however, the increasing share of

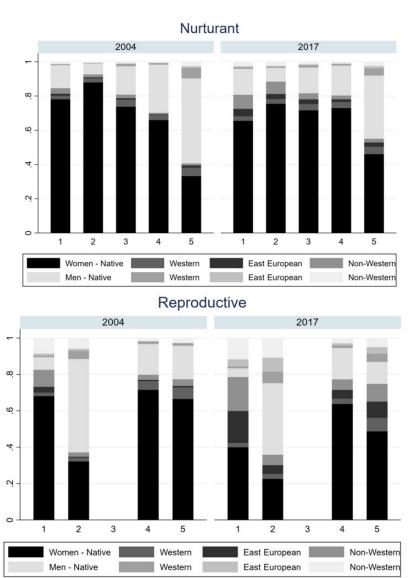


Figure 6 Gender and ethnic diversity in the hierarchy of care work. Nurturant and reproductive.

men in lower-ranked care occupations is driven by an increase in the share of non-Western and East European immigrant men. Immigrant men of all groups comprise a higher share of employees at the highest ranked occupations within reproductive work, but immigrant men are still overrepresented in low-waged reproductive care work.

As previous research has demonstrated, desegregation in the labor market is principally driven by women's entrance into previously male-dominated, middle-class occupations (England 2010). The higher-ranked occupations, such as medical doctors and psychologists, have experienced a strong influx of native women recently. However, the strong female dominance in the lower ranks of nurturant care is maintained due to a growing share of immigrant women, such as home helpers, nursemaids, or doctor's/dentist's secretaries. In reproductive work, the share of native women has declined, most notably in the low-ranked occupations, where they are replaced by immigrant women as well as immigrant men.

Conclusion

The devaluation of care work has been seen as a key factor in explaining the scarcity of men and overrepresentation of women in care work (Levanon, England, and Allison 2009; Reskin and Roos 1990). However, the devaluation of particular jobs not only affects their gender balance but also their ethnic and racial composition (Duffy 2005; Dwyer 2013; Hodges 2020). To highlight processes of polarization and segregation in care work, the present study employs a broad definition of care work, extending the analyses from the common limited focus on nurturant care work to also include reproductive care work, enabling us to examine processes of segregation in different types of care work. It employs an intersectional lens to analyze the composition and mobility of workers both in terms of gender and immigrant status. By distinguishing between nurturant and reproductive care, this study underscores the distinction between low- and high-skilled care work and how immigrants are contributing to a shift in the composition of care workers, particularly in lowstatus care jobs. The findings show that the distinction between nurturant and reproductive care work indeed reflects a distinction between care work of different statuses, as well as discrete developments in terms of segregation patterns. Although research describes cross-national variations in the gender wage gap in care work (Budig and Misra 2010), our findings show that the duality in care work documented in the United States (Dwyer 2013) is also present in Norway, where natives to a greater extent occupy the better-paid nurturant care work, while immigrants are overrepresented in reproductive care work at the lower end of the income hierarchy.

Moreover, the analyses show that although the strong female dominance in nurturant care work is relatively stable across the studied period, a shift in the

composition of workers has occurred. While native women are leaving the most devalued type of care work, namely reproductive care work, the share of immigrants—both women and men—is increasing. Reproductive care work has seen an increased presence of men or, more precisely, immigrant men, as well as an increase in immigrant women who replace native women. These ongoing desegregating processes are driven by changes in the gender composition of occupations, which outweigh the segregating impact of changes in the relative size of gender-dominated occupations. Thus, our findings underscore, first, how patterns of gender segregation are influenced by immigration. Second, this study accentuates previous research that shows that gender and race intersect to determine which men will ride the glass escalator (Hodges 2020; Wingfield 2009). In reproductive work, the increasing share of men in lower-ranked care occupations is driven by an increase in the share of non-Western and East European immigrant men. Thus, not all men doing women's work fare better than similarly situated women.

On a general level, this study underscores the importance of being aware that upward mobility and gender egalitarian trends can coexist with increased ethnic inequality and marginalization, in explaining the change in the gender-segregated labor market. This theoretical lens, which includes insights from both gender studies on devaluation (England 2010) and ethnic and racial polarization in the care economy (Duffy 2005, 2007; Hodges 2020), is crucial to acknowledge how simultaneous processes of change, taking place in different parts of the class hierarchy, influence the opportunity structures for different groups in quite different ways. As this study suggests, desegregation and change in the gender system reflect both gender untypical choices and widened opportunity structures for native middle-class women (England 2010), as well as constrained mobility opportunities and immigrants' vulnerable position within care work and the global economy (Williams 2018).

Thus, the study contributes to research on the persistence of gender inequality by highlighting the need to deploy an intersectional lens on the mechanisms of inequality in the gender-segregated labor market. Different groups have different incentives and possibilities to be mobile in the occupational structure, and differences in incentives and mobility chances vary not only by gender (or class) but also by immigrant status and ethnicity.

Notes

- 1. Numbers extracted from OECD.stat: https://stats.oecd.org/Index.aspx? DataSetCode=LFS_SEXAGE_I_R# (accessed June 14, 2021).
- The basic amount is used to calculate a number of benefits from the National Security System. In 2017, one basic amount was NOK 93,281, which corresponds to approximately US\$11,000.
- 3. This is based on the International Standard Classification of Occupations (ISCO-88(COM)).

4. The public sector share in the sample is 0.8 in nurturant and 0.3 in reproductive care work in 2017 (results not shown).

Acknowledgments

We appreciate the support offered by several of our colleagues at Institute for Social Research and CORE—Center for research on gender equality. We would like to thank an anonymous referee for valuable comments and feedback.

Funding

This work was supported by CORE—Center for research on gender equality and the Institute for Social Research through the project NORPOL—is Norwegian society being polarized?

References

- Acker, Joan. 1990. Hierarchies, jobs, bodies. *Gender & Society* 4 (2): 139–158. https://doi.org/10.1177/089124390004002002
- Autor, David H., Frank Levy, and Richard J. Murnane. 2003. The skill content of recent technological change: An empirical exploration. *The Quarterly Journal of Economics* 118: 1279–1333.
- Barth, Erling, and Kjersti M. Østbakken. 2021. Fortsatt polarisering i det norske arbeidsmarkedet? *Søkelys på arbeidslivet* 38: 23–40. https://doi.org/10.18261/issn. 1504-7989-2021-01-02
- Behtoui, Alireza, Kristina Boréus, Anders Neergaard, and Soheyla Yazdanpanah. 2017. Speaking up, leaving or keeping silent: Racialized employees in the Swedish elderly care sector. *Work, Employment and Society* 31 (6): 954–971. https://doi.org/10.1177/0950017016667042
- Birkelund, Gunn E., and Trond Petersen. 2003. Det norske likestillingsparadokset: Kjønn og arbeid i velferdssamfunnet. In *Det norske samfunn*, ed. I. Frønes and L. Kjølsrød, 126–53. Oslo: Gyldendal Akademisk.
- Blau, Francine D., Peter Brummund, and Albert Y-H. Liu. 2013. Trends in occupational segregation by gender 1970–2009: Adjusting for the impact of changes in the occupational coding system. *Demography* 50 (2): 471–94.
- Blau, Francine D., and Lawrence M. Kahn 2017. The gender wage gap: Extent, trends, and explanations. *Journal of Economic Literature* 55 (3): 789–865. https://doi.org/10. 1257/jel.20160995
- Brochmann, Grete, and Kjeldstadli Knut. 2008. A history of immigration: The case of Norway 900–2000. Oslo: Universitetsforlaget.
- Budig, Michelle J., Melissa J Hodges, and Paula England. 2019. Wages of nurturant and reproductive care workers: Individual and job characteristics, occupational closure, and wage-equalizing institutions. *Social Problems* 66 (2): 294–319. https://doi.org/ 10.1093/socpro/spy007.

Budig, Michelle J., and Joya Misra. 2010. How care-work employment shapes earnings in cross-national perspective. *International Labour Review* 149 (4): 441–60. https://doi.org/10.1111/j.1564-913X.2010.00097.x

- Duffy, Mignon. 2005. Reproducing labor inequalities: Challenges for feminists conceptualizing care at the intersections of gender, race, and class. *Gender and Society* 19 (1): 66–82. https://doi.org/10.1177/0891243204269499.
- 2007. Doing the dirty work: Gender, race, and reproductive labor in historical perspective. *Gender and Society* 21 (3): 313–36. https://doi.org/10.1177/0891243207300764.
- Duncan, Otis D., and Beverly Duncan. 1955. A methodological analysis of segregation indexes. American Sociological Review 20 (2): 210–17.
- Dwyer, Rachel E. 2013. The care economy? Gender, economic restructuring, and job polarization in the U.S. labor market. *American Sociological Review* 78 (3): 390–416. https://doi.org/10.1177/0003122413487197.
- Elstad, Jon Ivar, and Mia Vabø. 2021. Lack of recognition at the societal level heightens turnover considerations among Nordic eldercare workers: A quantitative analysis of survey data. *BMC Health Services Research* 21 (1): 747. https://doi.org/10.1186/s12913-021-06734-4.
- England, Paula. 1992. Comparable worth: Theories and evidence. Social institutions and social change. New York: Aldine de Gruyter.
- ——— 2010. The gender revolution: Uneven and stalled. *Gender & Society* 24 (2): 149–66.
- England, Paula, Michelle Budig, and Nancy Folbre. 2002. Wages of virtue: The relative pay of care work. *Social Problems* 49 (4): 455–73. https://doi.org/10.1525/sp.2002. 49.4.455.
- England, Paula, Andrew Levine, and Emma Mishel. 2020. Progress toward gender equality in the United States has slowed or stalled. *Proceedings of the National Academy of Sciences* 117 (13): 6990–6997. https://doi.org/10.1073/pnas. 1918891117
- England, Paula, Ivan Privalko, and Andrew Levine. 2020. Has the gender revolution stalled? *Economic and Social Review* 51 (4): 463–88.
- Esping-Andersen, Gøsta. 1990. The three worlds of welfare capitalism. Cambridge: Policy Press.
- Evans, Joan. 1997. Men in nursing: Issues of gender segregation and hidden advantage. *Journal of Advances Nursing* 26 (2): 226–31. https://doi.org/10.1046/j.1365-2648. 1997.1997026226.x
- Friberg, Jon Horgen, and Arnfinn H. Midtbøen. 2018. Ethnicity as skill: Immigrant employment hierarchies in Norwegian low-wage labour markets. *Journal of Ethnic and Migration Studies* 44 (9): 1–16. https://doi.org/10.1080/1369183X.2017. 1388160.
- Fuchs, Victor R. 1975. A note on sex segregation in professional occupations. Explorations in Economic Research 2 (1): 105–11.
- Glenn, Evelyn Nakano. 1992. From servitude to service work: Historical continuities in the racial division of paid reproductive labor. *Signs: Journal of Women in Culture and Society* 18 (1): 1. https://doi.org/10.1086/494777.

- Gulbrandsen, Fredrik, Anne S. Kulasingam, Christian S. Molstad, Alice Steinkellner. 2021. *Innvandrere og norskfødte med innvandrerforeldres fordeling på kommunenivå*. Oslo: Kongsvinger.
- Hochschild, Arlie. R. 1995. The culture of politics: Traditional, postmodern, cold-modern, and warm-modern ideals of care. *Social Politics* 2 (3): 331–46. https://doi.org/10.1093/sp/2.3.331
- Hodges, Melissa J. 2020. Intersections on the class escalator: Gender, race, and occupational segregation in paid care work. *Sociological Forum* 35 (1): 24–49. https://doi.org/10.1111/socf.12566.
- Hoen, Maria Forthun. 2020. Immigration and the Tower of Babel: Using language barriers to identify individual labor market effects of immigration. *Labor Economics* 65: 101834. https://doi.org/10.1016/j.labeco.2020.101834
- Hussein, Shereen, and Karen Christensen. 2017. Migration, gender and low-paid work: On migrant men's entry dynamics into the feminised social care work in the UK. *Journal of Ethnic and Migration Studies* 43 (5): 749–65. https://doi.org/10.1080/1369183X.2016.1202751.
- Leira, Arnlaug. 1994. Concepts of caring: Loving, thinking, and doing. *Social Service Review* 68 (2): 185–201. https://doi.org/10.1086/604046.
- Levanon, Asaf, Paula England, and Paul Allison. 2009. Occupational feminization and pay: Assessing causal dynamics using 1950–2000 U.S. census data. *Social Forces* 88 (2): 865–91. https://doi.org/10.1353/sof.0.0264.
- Mandel, Hadas, and Moshe Semyonov. 2006. A welfare state paradox: State interventions and women's employment opportunities in 22 countries. *American Journal of Sociology* 111 (6): 1910–1949. https://doi.org/10.1086/499912.
- McCall, Leslie. 2011. Women and men as class and race actors: Comment on England. Gender and Society 25 (1): 94–100. https://doi.org/10.1177/08912432 10389812
- McDowell, Linda. 2009. Working bodies: Interactive service employment and workplace identities. Studies in urban and social change. Chichester: Wiley.
- Moskos, Megan. 2020. Why is the gender revolution uneven and stalled? Gender essentialism and men's movement into 'women's work'. *Gender, Work & Organization* 27 (4): 527–44. https://doi.org/10.1111/gwao.12406.
- Orupabo, Julia. 2022. Enacting efficient care within a context of rationalization. Sociological Review 70 (1): 57–73. https://doi.org/10.1177/00380261211052390
- Orupabo, Julia, and Marjan Nadim.2020. Men doing women's dirty work: Desegregation, immigrants and employer preferences in the cleaning industry in Norway. *Gender, Work & Organization* 27 (3):347–61. https://doi.org/10.1111/gwao.12378
- Phillips, Anne, and Barbara Taylor. 1980. Sex and skill: Notes towards a Feminist Economics. *Feminist Review* 6 (1): 79–88. https://doi.org/10.2307/1394973.
- Prokos, Anastasia. 2011. An unfinished revolution: England symposium introduction. *Gender and Society* 25 (1): 75–80. https://doi.org/10.1177/0891243210392781
- Reisel, Liza. 2014. Kjønnsdeling på tvers. In *Kjønnsdeling og etniske skiller på arbeidsmarkedet*, ed. L. Reisel and M. Teigen, 30–47. Oslo: Gyldendal Akademisk.
- Reskin, Barbara, and Patricia Roos. 1990. *Job queues, gender queues: Explaining women's inroads into male occupations.* Philadelphia: Temple University Press.

Ridgeway, Cecilia L., and Shelley J. Cornell. 2006. Consensus and the creation of status beliefs. *Social Forces* 85 (1): 431–53. http://www.jstor.org/stable/3844422

- Ruhs, Martin, and Bridget Anderson. 2010. Who needs migrant workers: Labour shortages, immigration, and public policy. Oxford: Oxford University Press.
- Sandnes, Toril. 2017. Innvandrere i Norge 2017. Oslo/Kongsvinger: Statistics Norway.
- Simpson, Ruth. 2004. Masculinity at work: The experiences of men in female dominated occupations. *Work, Employment & Society* 18 (2): 349–68.
- Strader, Eiko. 2022. State work-family contexts and the wage gap by gender and parenthood. *Family Relations* 71 (4): 1713–30. https://doi.org/10.1111/fare. 12680.
- Torre, Margarita. 2018. Stopgappers? The occupational trajectories of men in female-dominated occupations. *Work and Occupations* 45 (3): 283–312. https://doi.org/10.1177/0730888418780433.
- Umblijs, Janis, Julia Orupabo, and Ida Drange. 2022. Sammenhenger mellom etnisk mangfold og lønnsomhet i norske virksomheter. Institutt for samfunnsforskning. ISF-report 2022:3. Oslo: Institute for Social Research. https://hdl.handle.net/11250/2988146
- Waldinger, Roger, and Michael I. Lichter. 2003. How the other half works. Immigration and the Social Organization of Labour. Berkeley: University of California Press.
- Williams, Christine L. 1992. The glass escalator: Hidden advantages for men in the "female" professions. *Social Problems* 39 (3): 253–67. https://doi.org/10.2307/3096961.
- Williams, Fiona. 2018. Care: Intersections of scales, inequalities and crises. *Current Sociology* 66 (4): 547–61. https://doi.org/10.1177/0011392118765206.
- Wingfield, Adia Harvey. 2009. Racializing the glass escalator: Reconsidering men's experiences with women's work. *Gender & Society* 23 (1): 5–26. https://doi.org/10. 1177/0891243208323054
- Yeates, Nicola. 2005. A global political economy of care. *Social Policy Society* 4 (2): 227–34. https://doi.org/10.1017/S1474746404002350.

Table A1. Nurturant care occupations

Occupational code	Occupational title
2221	Medical doctors
2222	Dentists
2225	Nutritionists
2230	Nursing and midwifery professionals
2320	Secondary education teaching professionals
2340	Special education teaching professionals
2545	Psychologists
2352 101	Student officers
2352 109	Study advisors

Continued

Table A1. Continued

Occupational code	Occupational title
2352 111	Study supervisors
2359 103	Music therapists
2560	Religious professionals
3221	Radiographers and audiology associate professionals
3223 101	Nutrition consultants
3224	Opticians
3225	Dental assistants
3226	Physiotherapists and related associate professionals
3229	Modern health associate professionals (except nursing) not elsewhere classified
3231	Nurses
3232	Registered nurses for the mentally subnormal
3310	Primary education teaching associate professionals
3320	Pre-primary education teaching associate professionals
3341	Technical and subject teaching associate professionals (secondary education)
3349	Other teaching associates and pedagogical professionals not elsewhere classified
3460	Social workers (college-trained), child care officers, etc.
3475 102	Coaches
3475 116	Aerobics instructors
3475 125	Instructors (fitness, etc.)
3475 130	Health club instructors
3475 141	Coaches
3480	Religious associate professionals
5131	Child-care workers
5132	Nursing assistants and care assistants
5133	Home helpers
5134	Dentists' secretaries
5135	Doctors' secretaries
5136	Trainees, nursemaids, etc.
5139	Personal care and related workers not elsewhere classified
5143	Reducing treatment hosts/hostesses and related workers
5137	Pharmacy technicians

Note. Occupation 5143 reducing treatment hosts/hostesses and related workers excludes bowling associates and bowling hosts.

Table A2. Reproductive care occupations

Occupational code	Occupational title
2224	Pharmacists
3211	Life science technicians
3228	Pharmaceutical assistants
5122	Cooks
5123	Head waiters, waiters, waitresses, and bartenders
5141	Hairdressers, barbers, beauticians, and related workers
5163	Caretakers
8266	Bleaching, dyeing, and cleaning machine operators
8266 102	Dry cleaning machine workers
8266 103	Dry cleaning workers
8266 104	Laundry workers
8266 105	Laundry assistants
8266 109	Textile cleaners
8266 111	Coat dry cleaners
8266 118	Specialized workers (dyeing, laundry, dry cleaning)
8266 119	Laundry assistants
9131	Domestic helpers and cleaners
9132	Helpers and cleaners in offices and other establishments
9133	Kitchen helps and related workers
9141	Window cleaners